

ANNUAL REPORT 2022

READY *for this* MOMENT

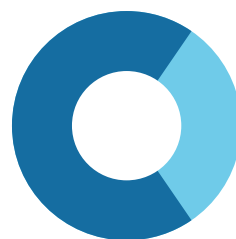


DELIVERING VALUE TO SHAREHOLDERS¹

AXIS is continuing to evolve our business and is positioned to increase profitability, lower volatility, and strengthen the portfolio, establishing a strong position in the fastest growing specialty markets.

We believe AXIS's rating of A+ from Standard and Poor's and A from A.M. Best reflects our excellent level of financial strength.

Mix of Business by GPW



INSURANCE: 68%
REINSURANCE: 32%



\$15.6B

CASH AND INVESTED ASSETS²



\$6.0B

TOTAL CAPITAL³



\$8.2B

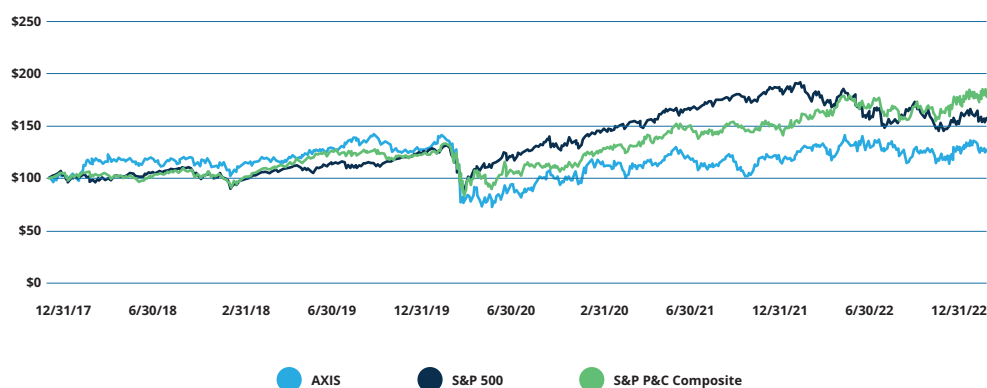
TOTAL GROSS PREMIUMS WRITTEN (GPW)⁴



\$27.6B

TOTAL ASSETS

TOTAL SHAREHOLDER RETURN⁵



¹ Key facts and figures at December 31, 2022 (\$ in billions)

² Total cash and invested assets represents the total cash and cash equivalents, fixed maturities, equity securities, mortgage loans, other investments, short-term investments, accrued interest receivable and net receivable (payable) for investments sold (purchased)

³ Total capital represents the sum of total shareholders' equity and debt

⁴ The Company exited Reinsurance Catastrophe and Property lines of business in June 2022 and will substantially complete this exit in 2023

⁵ Data computed from December 31, 2017 to December 31, 2022. Shown above is a graph comparing the yearly percentage change in the cumulative total shareholder return on our common shares (assuming reinvestment of dividends) from December 31, 2017 through December 31, 2022, as compared to the cumulative total return of the Standard & Poor's 500 Stock Index and the cumulative return of the Standard & Poor's Property and Casualty Insurance Index. This graph assumes an investment of \$100 on December 31, 2017. The points on the graph represent fiscal year-end values based on the last trading day of each fiscal year. The comparisons are based on historical data and are not indicative of, nor intended to forecast, the future performance of our common shares.

CEO LETTER

Dear fellow shareholders

ADVANCING SPECIALTY LEADERSHIP

This was a milestone year for AXIS. Over the past several years, we've shared our journey with you as we've worked diligently and steadfastly to reposition AXIS to be a leading specialty underwriter – and create a stronger, more resilient book of business, while placing the Company on a pathway to generating lasting profitable growth.

We enter 2023 with a more focused mix of business, less volatile earnings profile, and the potential for strong performance in our chosen markets. Moreover, throughout the Company, our team is focused on our mission to advance our position as a leading specialty underwriter. To be clear, there is more work to be done and we remain focused on continuing to grow our business and further enhance our operations to drive agility, innovation, and efficiency.

Specifically, over the past year we further refocused our business on specialty lines where we believe we can compete effectively and profitably. We continued to invest in growth areas, including Wholesale insurance, growing our presence in the Lower Middle Markets, and leveraging our global platform to support our customers. In addition, we repositioned AXIS Re as a specialist reinsurer, and exited the volatile Catastrophe and Property reinsurance space, reducing our risk exposure while concentrating on Accident and Health, Casualty, Credit and Surety, and Specialty reinsurance lines. To support the more focused front-end of our business, we streamlined our organizational structure and centralized underwriting and other key functions.

Now, having built a solid platform as a leading specialty underwriter, we are well-positioned to continue increasing our growth, profitability, and efficiency. Indeed, with the recognition that we must continue to enhance and strengthen our business, we are progressing into 2023 with accelerating momentum, propelled by years of improved underlying performance, strong positions in our chosen markets, and rising demand for specialty coverage. We're confident that AXIS will not only continue to build on this progress, but that we are well on our way to taking the business to even higher levels.

READY FOR THIS MOMENT

Our business is at a pivotal moment where volatile geopolitical conditions, extreme weather, and financial and social inflation are creating dislocations that are driving risks into the specialty market.

These dynamic market conditions have resulted in a reset in underwriting terms and conditions, improved pricing to keep up with loss cost trends, and more limited reinsurance capacity. This environment creates a unique opportunity for specialty carriers to deliver more value to the market. With a heritage in specialty underwriting that began at our inception, we believe AXIS is particularly well-positioned to help our customers navigate the current environment while providing products and risk solutions to help them operate their businesses with confidence.

While our strategy and structure have evolved, our core values remain the same: exceptional customer service, respect for colleagues, and a commitment to play a positive role in meeting society's needs.

With established leadership positions in attractive specialty markets, a talented and energized team of expert specialty underwriters, and a strong culture rooted in our values, we believe that AXIS can achieve our goals – and deliver on our potential – in 2023 and beyond. In short, AXIS is ready for this moment.

POSITIVE PERFORMANCE TRENDS

The transformation journey we embarked upon some years ago positioned AXIS to deliver solid financial results in 2022 – highlighted by record premium production, as well as improved loss ratio, general and administrative (G&A) ratio, and combined ratio.

For our group results, gross premiums written were \$8.2 billion in 2022, increasing by 7% from the prior year. Premium growth was largely due to an increase of 15% in the Insurance segment, partially offset by a 7% decrease in our Reinsurance business as our repositioning led to planned

reductions in Reinsurance Catastrophe, Property, and other selected lines. The Reinsurance lines we have targeted for growth, including Credit and Surety, Agriculture, Accident and Health, and others, experienced an increase of \$212 million in gross premiums written compared to the year prior.

Our underwriting performance was strong. Underwriting income rose 35%, to \$359 million in 2022, from \$266 million in 2021. We improved our overall combined ratio by 1.7 points, to 95.8%. And, in a year marked

by such catastrophic events as the Russia-Ukraine war, severe weather, and the continued pandemic impact, pre-tax catastrophe and weather-related losses, net of reinsurance and reinstatement premiums, were \$403 million, or 7.8 points. This compares to \$443 million, or 9.5 points, in 2021.

Net income available to common shareholders for 2022 was \$193 million, or \$2.25 per diluted common share, compared to \$588 million, or \$6.90 per diluted common share, for 2021. Much of the difference was due to investment losses, reflecting the heightened volatility of global financial markets. Operating income increased, however, to \$498 million in 2022 from \$436 million in 2021.

STRONG LEADERSHIP FOR A BOLD FUTURE

To deliver on the potential of our new specialty underwriting model, we announced several changes in leadership during the past year. Vince Tizzio, who joined AXIS early in 2022 and was appointed CEO of AXIS Insurance, was given an expanded role as CEO of Specialty Insurance and Reinsurance at mid-year. This new position was created to foster a single, globally integrated approach for our businesses. And, at the conclusion of 2022, we announced that Vince will succeed me in May 2023 as President and CEO of AXIS.

I couldn't be more excited about the leadership that Vince is bringing to our company. Vince is a highly accomplished specialty leader, who in just over a year with the Company has demonstrated an immediate impact. In Vince, we have a fantastic leader who I'm confident has the vision, industry knowledge, grit, and tenacity to lead AXIS to even greater levels of success.

The future of AXIS will be in very capable hands under Vince's leadership, and I look forward to working with him to ensure a seamless transition. I am confident in the Company's tremendous potential as a specialty leader, and its ability to build and grow upon the foundation we have established.

In addition, Dan Draper has been promoted to the new position of Group Chief Underwriting Officer, and he has joined our executive committee. Dan, who previously served as Group Head of Underwriting,

is guiding underwriting governance, portfolio management, technical underwriting pricing, and ceded reinsurance and retrocession purchasing. This is an important change that is providing consistent and enhanced access to data, improved information flow, fostering a single view of risk across our portfolio, and enabling faster adoption of innovations to improve our business and our service to customers and distribution partners.

Also in 2022, Ann Haugh was named Reinsurance CEO, reporting to Vince. Ann has an established track record in multiple leadership roles within AXIS Re, including President of Global Property and, prior to that, President of Global Markets. In addition, we named Linda Ventresca as Head of Digital, reflecting our ongoing commitment to deliver digitized solutions across the underwriting enterprise.

During the course of 2022, in connection with our strategic repositioning, we also announced the departure of several longtime executives. I express my deep appreciation to these individuals. In particular I extend my gratitude to former AXIS Insurance CEO Pete Wilson and AXIS Reinsurance CEO Steve Arora for their tremendous contributions to the Company. In addition, as part of our pivot towards being a specialty carrier, AXIS also bid farewell to several other colleagues, including those from our Property Reinsurance business. I would like to take this opportunity to express my deepest gratitude to these colleagues for their contributions to AXIS.

SPECIALISTS IN SPECIALTY

After a multi-year effort to reposition the business, AXIS today is a focused specialty underwriter, and vastly different from the company it was five years ago. Back then, a much higher proportion of our gross premiums written came from Reinsurance. In 2022, on a pro forma basis, 71% of our gross written premium was from Insurance, and we expect to report in excess of 75% this year.

To get there, we are building upon an already solid foundation: our established leadership in key specialty markets. For example, we are the #10 Syndicate at Lloyd's by capacity, #10 in Lloyd's Marine, #13 in U.S. Excess & Surplus lines, and hold leading positions in Cyber and Renewable Energy. We also are a top-15 carrier in Professional Lines in chosen markets of the U.S., London and Bermuda.

In 2022 we announced several initiatives to target additional attractive markets where we can forge leadership positions, better serve our customers, and provide increased value to our shareholders. Our efforts included launching a dedicated AXIS Wholesale Division, with a focus on further enhancing the products and risk solutions that we bring to customers across all of our distribution channels, and enhancing our operating infrastructure to be more responsive, integrated, and efficient.

\$8.2B

GPW

\$359M

UNDERWRITING INCOME

95.8%

COMBINED RATIO

A CULTURE OF COMMITMENT AND CITIZENSHIP

I noted earlier that we have positioned AXIS to be “ready for this moment.” Our moment has arrived, in large part, because of the recognition that we live in a world where people are facing increasing risk. We certainly saw that in the geopolitical, economic and public health challenges of the past year, including the Russia-Ukraine war and its attendant human suffering and global disruption, the resurgence of inflation, and the ongoing effects of the pandemic. Add to that the increasing frequency and severity of climate events, and we can see why there is more demand than ever for companies like AXIS that understand and can help mitigate complex risks. That is a vital part of our social purpose – and of our value to our society and economy.

As an organization that serves an essential social purpose, AXIS is also committed to the values of Corporate Citizenship. Our Citizenship program is designed to address key environmental, social and governance (ESG) issues, by focusing on the areas where we believe we can make the greatest impact: protecting our planet, promoting diversity,

equity, and inclusion (DEI), and supporting our communities. This is exemplified by the Company's commitment to phasing out thermal coal-related business, and more recently in setting standards for greenhouse gas (GHG) emissions and establishing goals for gender and ethnic representation through our DEI program. I encourage you to read more about our efforts in the Corporate Citizenship section of this report.

The Company's strong commitment to social purpose and citizenship is directly due to our people and culture. Ours is a receptive and inclusive culture where people can see themselves and their values reflected. We believe that the right way to run a business is by treating each other with respect, bringing our best to our customers and distribution partners, and contributing to our communities. Our people are proud of our culture – and I am proud of them. Importantly, this culture, which has been recognized by Forbes as one of America's Best Midsize Companies in 2022 and 2023 and Insurance Business as a Top Employer in 2023, has enabled us to recruit and retain top talent.

TRANSFORMATION AND TRANSITION

With our upcoming CEO transition, this will be my last Annual Report letter with you as President and CEO of AXIS.

I would like to take this opportunity to offer my heartfelt thanks to so many who have shared this journey with me and have contributed to making AXIS the exciting enterprise it is today.

To my AXIS colleagues, both past and present, I am most proud of our consistent ability over the years to face adversity and always rise to the challenge. I know you will continue to deepen customer and broker relationships by providing outstanding service and products that meet their evolving needs, build a balanced and resilient book of business, and foster a strong culture rooted in our values.

To the members of the Board, I am deeply grateful for your commitment and support for AXIS. Thank you for your guidance and sound wisdom as we embarked on our transformation journey and developed the right strategy for the future.

To our customers and distribution partners, it has been my pleasure to serve you. Together, we navigated through complex risk landscapes, and it has been a wonderful experience to see how our industry has evolved.

To our shareholders, thank you for your trust and partnership. I take great pride knowing that AXIS has strong momentum to deliver sustained profitable growth and increased shareholder value in the coming years.

Before I close this Annual Report, I would be greatly remiss without recognizing the impact of former longtime AXIS Chair, Michael Butt, who passed away in February 2023. Michael was a towering figure and a trailblazer in our industry, and played a pivotal role in launching our Company and helping guide our growth from start-up to emerging specialty leader. He was also a passionate advocate for climate change, sustainability, and education. On a more personal note, Michael was a counselor and a mentor, a compassionate leader, and a wonderful friend. The industry, AXIS, and I will miss him dearly.

Serving as President and CEO of AXIS for the last eleven years has truly been an honor – and the highlight of my career. As I embark on the next chapter of my life, I am confident that the future is bright for AXIS and its best days are yet to come.



Sincerely,
Albert A. Benchimol
President and
Chief Executive Officer

CHAIR LETTER

Dear fellow shareholders

CLEARLY, THE MOST SIGNIFICANT DEVELOPMENT FOR AXIS IN 2022 WAS OUR STRATEGIC REPOSITIONING AND THE ADVANCEMENT OF AXIS AS A LEADING SPECIALTY UNDERWRITER

– a multi-year exercise highlighted by our exit from the volatile property cat reinsurance market and our organizational repositioning to increase agility and alignment. This required significant changes across the Company and I want to express our deep appreciation to all the AXIS team members who helped make this massive effort a success.

As a result, AXIS is a different company today than it was even a year ago. We are now more highly focused on attractive, less volatile markets. But we also are a leaner and more agile company with a more streamlined leadership structure. Our team is working better together than at any time I can recall.

COMMITMENT TO SHAREHOLDER VALUE

Since our inception, we have always been a specialty underwriter. As we more sharply focused our strategy in the past year on advancing specialty leadership, we are encouraged by our results, in terms of premium growth in our selected lines, solid underwriting metrics, and profitability. We have more work to do – but we are excited about building on this foundation going forward. In addition, the Board is aware that our past performance has lagged behind our peers and we are very determined to drive improving returns for shareholders.

To get there, we are committed to successful execution: growing the current businesses where we believe we can get a good return, and adding promising new products and distribution channels, including

those powered by digital. One of our greatest strengths has always been the relationships we have with our customers and distribution partners, and we continue to work diligently to build on those relationships. Expense management also remains a high priority – not entirely through cost reductions, but also by continuing to grow premium while operating more efficiently across the organization.

Reflecting our ongoing commitment to our shareholders, in December 2022 our Board of Directors declared a one cent increase in the quarterly dividend to \$0.44 per common share marking this as the 19th successive annual increase in dividends.



TALENT AND CULTURE

We know that the key to successful execution is talent – retaining the quality employees we need to operate our existing businesses and attracting talented professionals to join our team. At AXIS, we believe that recruiting and retaining talent is only partially a matter of offering competitive compensation and benefits. We continue to invest in our people by creating an environment in which they feel appreciated, supported, listened to, and have an opportunity to make a difference.

We understand that our people have become adept at operating in a hybrid environment, so we created Flex for Your Day to help them find the right combination of time spent at the office and working virtually. We also have multiple programs aimed at supporting their physical and mental well-being, including an extensive network of Employee Resource Groups (ERGs) led by employee volunteers for members and allies of the following communities: ethnically diverse colleagues, LGBTQ+, parents and caregivers, women, and veterans.

LEADERSHIP TRANSITION

Your Board and I would like to take this opportunity to thank Albert Benchimol, AXIS President and CEO, for almost thirteen years of service with the Company, including eleven as CEO. Among his countless contributions, Albert has led our strategic repositioning, refocusing AXIS as a specialty leader while building a balanced and resilient portfolio and placing the Company on a pathway to lasting profitable growth. He also has been a great culture leader, growing a strong workplace environment. Under Albert's guidance, AXIS has become a top employer in the industry and fostered a customer-service mindset that has forged strong and enduring bonds with brokers and customers. Further, Albert reflects the Company's commitment to Bermuda through his contributions to the Association of Bermuda Insurers and Reinsurers (ABIR). He previously served as Chair from 2019-2020 and Vice-Chair from 2017-2018.

We also wish to express our gratitude to former AXIS Insurance CEO Pete Wilson and AXIS Reinsurance CEO Steve Arora, who both departed the Company in 2022, and thank them for their years of leadership. As part of our repositioning of the business, the Company also said farewell to a number of other staff, particularly within our Property Reinsurance business – and we would like to express our deep appreciation to these individuals for their contributions to AXIS.

As successor to Albert, your Board has named Vince Tizzio as the future President and CEO of AXIS, effective in May 2023, following our Annual General Meeting. During his first year with the Company, Vince has already made an impressive impact, challenging AXIS to build on our progress by driving further profitable premium growth for our Insurance business, identifying exciting growth opportunities including expanding our Lower Middle Market presence, and advancing efforts to become even more agile and efficient in our front-end operations.

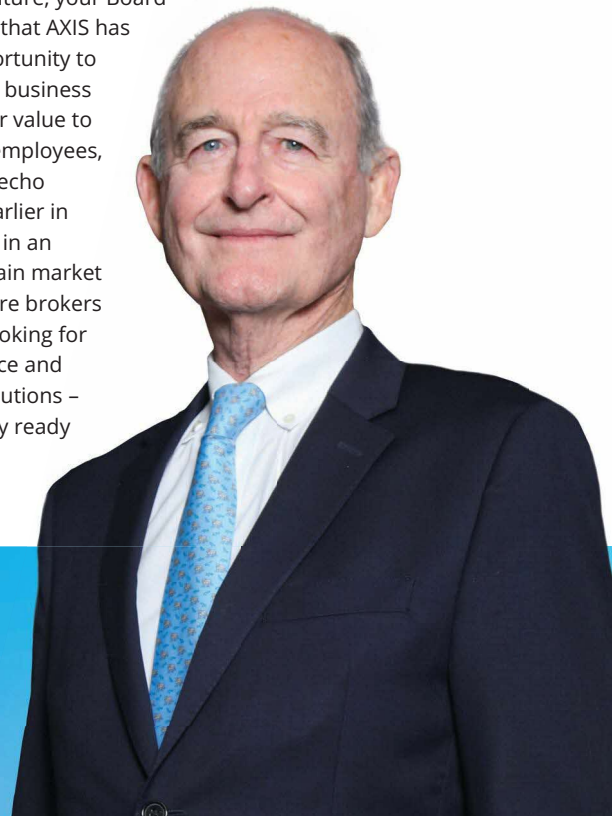
I have participated in some of their events, and I am impressed by the concern and care that people express for each other in this organization, and the positive impact it has on our culture.

It is important for our employees, customers and shareholders to know that AXIS is a company driven by deeply held values. We are taking meaningful action to enhance our ESG program. For example, we were an early adopter of underwriting and investment restrictions related to fossil fuels, supporting the transition to a low-carbon economy by investing in our Renewable Energy business where we are already a leading global player, and we are continuing to work toward greenhouse gas reductions. Our steadfast commitment to our values make AXIS a more diverse, resilient, and stronger company – and one that can be trusted to attract and develop talent, meet the needs of our customers, distribution partners and society, and deliver shareholder value.

Vince is deeply committed to our strategy of advancing AXIS as a leader in specialty underwriting. He also is an energizing people leader who will continue to help our team unlock the Company's significant potential.

Finally, your Board and I mourn the loss of longtime AXIS Chair, Michael Butt, who passed away in early 2023. Michael was appointed Chair of the AXIS Capital Board of Directors in September 2002, and played a foundational role not just in launching and growing AXIS but in helping to build the broader (re)insurance market in Bermuda, among numerous other achievements. Michael was an exceptional business leader, an accomplished humanitarian, and a dear friend. Though we deeply miss Michael, we continue his legacy through the values and culture at AXIS that he so deeply espoused.

As we look to the future, your Board and I are confident that AXIS has a tremendous opportunity to profitably grow our business and deliver superior value to our shareholders, employees, and customers. To echo comments made earlier in this Annual Report, in an increasingly uncertain market environment – where brokers and insureds are looking for specialized insurance and reinsurance risk solutions – we are quite literally ready for this moment.



Sincerely,
Henry B. Smith
Chair of the Board

CEO SPECIALTY INSURANCE AND REINSURANCE LETTER

Dear fellow shareholders

AXIS made meaningful progress in 2022 as we pursue our strategic aspiration: to deliver sustained profitable growth and increased shareholder value by operating as a leading global specialty underwriter and writing insurance and niche reinsurance with diversification by class and geography. Our transformation efforts over the past year included a major refocusing of our books of businesses, strengthening our capabilities in selected markets, and related changes in organization structure and leadership responsibilities.

We are confident that our recent strategic initiatives have been built upon a strong foundation, reflected in the Company's solid improvement in our underlying performance over the past year as detailed in an earlier section of this report. Although this was partly due to generally favorable market conditions, our prior years' portfolio repositioning initiatives played a significant role, setting the stage for improved performance in 2022.

INSURANCE – DRIVING ROBUST GROWTH

Our Insurance business generated \$5.6 billion of gross premium in 2022, an all-time production record and an increase of 15% over the prior year. Among the lines that enjoyed the most robust growth were Liability, Property, Cyber, Accident and Health, Marine and Aviation, while we saw premium growth across all of our lines of business. Our Insurance underwriting profit was \$327 million, an increase of 46% from the prior year despite adverse geopolitical conditions and severe weather events. Our combined ratio was 89.6% compared to 91.6% from last year. The accident year combined ratio ex-catastrophe and weather was 83.6%, an improvement of 2.3 points from a year ago.

To achieve our aspiration for the future of AXIS as a leading specialty underwriter, continued focused investment is critical.

In 2022, we added new products and resources to grow our long-standing Wholesale insurance business. Our new AXIS Wholesale Division brings together dedicated teams and resources focused specifically on the Wholesale channel.

In addition, we enter 2023 with a focus on enhancing the services and product capabilities that we provide to all of our distribution partners throughout the global markets in which we operate.

Looking to our International business, we have substantially grown our presence in the London market, where today we are a top quartile performer at Lloyd's. AXIS was also recognized as the Specialist Insurer of the Year by the 2022 British Insurance Awards hosted by the Insurance Post.

As part of our strategy to be a leading specialty underwriter, we have identified an opportunity to grow in the Lower Middle Market, coupled with investments in growing our digital capabilities. We are expanding our products for this under-served space to better cater to our distribution partners and access new customer markets. For example, we recently launched an insurance policy offering custom-built cyber and specialist liability coverage for companies with up to \$2 billion in revenue.

89.6%

INSURANCE COMBINED RATIO

\$5.6B

INSURANCE GPW

AXIS RE – SPECIALIST REINSURANCE FOCUS

In 2022, we shifted our focus to being a specialist reinsurer with a commitment to Accident and Health, Casualty, Credit and Surety, and Specialty lines.

Reinsurance gross premium for 2022 totaled \$2.6 billion. While the gross premiums written total decreased by 7% from the prior year, that was largely due to the refocusing of the business as a specialist reinsurer. Essentially, we exited Catastrophe and Property reinsurance lines, while delivering growth in the reinsurance lines we have targeted including Agriculture, Accident and Health, Credit and Surety. Reinsurance underwriting profit was \$31 million. Our combined ratio was 99.1% compared to 99.0% last year. The accident year combined ratio ex-catastrophe and weather increased 3.5 points from last year, to 89.8%.

Looking to the latest 1/1 renewal season, AXIS Re maintained relevance in our chosen product markets and geographies. Our team took great care to maintain an ongoing dialogue with our broker partners and customers, as well as with our teammates around our long-term commitment to our Reinsurance business. As a result, we successfully bound substantially all of the non-property related renewals that met our thresholds.

We believe our 1/1 performance speaks to the value that AXIS Re brings to the market through the knowledge and expertise of our underwriters and the deep relationships that we share with our customers. We enter 2023 with a disciplined growth mindset, focused on further optimizing our portfolio to achieve margin expansion. In addition, we expect to remain active in responding to evolving market conditions with a goal to deliver consistent financial performance.

99.1%

REINSURANCE COMBINED RATIO

\$2.6B

REINSURANCE GPW

ADVANCING LEADERSHIP IN SPECIALTY

As AXIS looks toward 2023, our industry is preparing for another year of disruption, underpinned by global financial and geopolitical uncertainty, financial and social inflation, the effects of climate change, and the ongoing impacts of high catastrophe loss activity. In response, the industry has tightened underwriting terms and conditions and premium pricing, while reinsurance capacity is becoming less available. This environment creates a unique opportunity for specialty underwriters like AXIS to deliver more value to the market while meeting the needs of society. Through the creation of tailored insurance products and risk solutions, coupled with the deep expertise of our underwriting team in their respective markets, AXIS is well-positioned to help our customers navigate the challenges of this dynamic environment.

In this market, AXIS will focus on tapping into our expertise in specialty risks to give customers the products, tools and solutions to operate their businesses with confidence. We will “meet” customers in different

channels of distribution with different methods of underwriting, be they digital, traditional or a hybrid. And, we will do this in a manner that will enhance our margin and underwriting income to deliver value to our shareholders.

Finally, I am honored to have been named the incoming President and CEO of AXIS, effective May 4, 2023, and to have an opportunity to grow the foundation built by Albert Benchimol and AXIS colleagues throughout the Company. I would like to take this opportunity to express my deepest gratitude to Albert, Henry Smith, the Board of Directors, and my colleagues at AXIS for placing their trust in me. In my time with AXIS, I have gotten to know the Company, its people, and its culture, and I am more energized than ever to step into this role. Indeed, as we look to 2023 and beyond, I am excited to be part of a company that is so clearly “ready for this moment.”

“AXIS will focus on tapping into our expertise in specialty risks to give customers the products, tools and solutions to operate their businesses with confidence.”



Sincerely,
Vincent C. Tizzio
CEO Specialty Insurance
and Reinsurance



THE AXIS JOURNEY

2023 AND BEYOND

Predominantly insurance focused
and recognized leader in specialty risk

2022

Employer Recognition

Named to Forbes America's Best
Midsize Employers List and Insurance
Business America Top Employers

AXIS Re Transformation

Exit from Reinsurance Catastrophe and
Reinsurance Property lines of business

2018

**Launch AXIS
Digital Ventures**

Accelerating Insurtech partnerships

**Formalized Corporate
Citizenship program**

To address ESG factors

2017

Novae Acquisition

Extended leadership position across
attractive specialty markets

2013

**Launch Third Party
Capital Platform**

Rebranded AXIS ILS in 2021

New Lloyd's Syndicate

Expanded global platform with
Lloyd's Syndicate 1686

2010

**Formation of
Renewable
Energy Team**

2009

**Launch AXIS Global
Accident & Health**

2004

**Launch Healthcare Unit providing
Professional Liability Insurance**

2003

Publicly listed on NYSE

2001

Start-up

Provider of larger capacity for
volatile lines in a "hard" market

CORPORATE CITIZENSHIP

At AXIS, our purpose is to help people and organizations navigate and manage risk in an increasingly complex and uncertain world. Consistent with that purpose, our Corporate Citizenship program, which aims to address ESG factors, is focused on making an impact across three key areas: Climate; Diversity, Equity, Inclusion (DEI); and Philanthropy.

ENVIRONMENT – PROTECTING OUR PLANET

Climate-related risks are among the most serious issues facing the world today. We are committed to taking a long-term sustainable approach to helping safeguard the environment and manage climate and environmental risks. Our 2022 climate initiatives built on the tangible progress AXIS has made in prior years, such as our leadership in Renewable Energy insurance – where AXIS is a top global player – and our commitments to phase out thermal coal business from our insurance, facultative reinsurance and investment portfolios. To that end, in 2022, our climate initiatives received top five industry rankings in scorecards from Insure our Future, and our Fossil Fuel Policy earned the ESG Initiative of the Year award from the Insider Honours.

An additional 2022 highlight was the publication of our inaugural Task Force on Climate-Related Financial Disclosures (TCFD)-aligned report – a reflection of our commitment to bolstering our ESG transparency and holding ourselves accountable to our goals. We also published our third disclosure report aligned with Sustainability Accounting Standards Board (SASB) framework.

In 2022, AXIS also adopted a formal ESG Investment Policy. Key elements of the Policy include incorporating ESG concerns into the Company's investment decisions, prohibiting investment in eco-unfriendly activities, and allocating capital to eco-positive investments.

During the past year, we worked to set goals for reducing the Company's greenhouse gas (GHG) emissions – the latest step in our ambition to transition to a low-carbon economy.

In addition, AXIS continued its participation in various organizations dedicated to climate-positive actions, including the Sustainable Markets Initiative Insurance Task Force, chaired by Lloyd's; the Insurance Development Forum, which works to extend the use of insurance to build more resilient communities; and the Climate Change & Environment Working Group of the Geneva Association, an insurance industry think tank.

DIVERSITY – FOSTERING EQUITY AND INCLUSION

At AXIS, we are focused on encouraging and promoting diverse, equitable, and inclusive practices, underpinned by a philosophy of valuing and actively embracing different perspectives and experiences. In 2022, guided by our Global DEI Council, we continued to grow our DEI efforts, using a five-part approach: internal education and awareness; recruitment and mobility; career development to support diverse colleagues; industry advocacy; and tools and measurement.

In the area of internal education, we are proud that close to half of our workforce attended our Annual DEI Forum with last year's theme focused on allyship – a concept that celebrates active efforts to promote diversity and eliminate roadblocks to inclusion. We also continued our ongoing DEI Learning Experience program that helps inform colleagues of relevant social issues. The program earned Gold honors in the Brandon Hall Group's 2022 Excellence in Technology Award for Best Advance in Rewards and Recognition Technology recognizing the innovative approach to promoting DEI and relevant social issues through technology.

To enhance recruitment and mobility, we provided resources to help managers work with their employees on career coaching and development plan options, including content specifically targeted at gender and ethnically diverse employees. We also continue to have highly engaged ERGs, led by volunteer staff, and covering such areas as ethnically diverse groups, LGBTQ+, parents and caregivers, veterans, and women.

Within our industry, AXIS continued to use our voice and influence to support the advancement of DEI, including serving as a Global Festival Partner in the 2022 Dive In Festival, an industry-wide initiative focused on DEI.

Recognizing the importance of setting measurable goals for our DEI progress, we have invested in tools to establish, report and track benchmark metrics. This includes measuring diverse hiring, turnover, promotions, and succession planning.

We are pleased to note that AXIS was recognized in the Bloomberg Gender-Equality Index for the third year in a row. To continue holding ourselves accountable, we also set goals to increase gender diversity within our organization.

Further, we implemented our Human Rights Policy restricting insurance coverage on projects undertaken on indigenous territories without Free, Prior, and Informed Consent (FPIC) in accordance with the United Nations Declaration on the Rights of Indigenous Peoples.

PHILANTHROPY – INVESTING IN OUR COMMUNITIES

Our Company's philanthropic efforts are designed to empower our people to give back at global, local and individual levels through partnerships, with approximately 75% allotted towards our focus areas of environmental and DEI causes.

Once again, we hosted our annual AXIS Global Giving Rally, enabling AXIS colleagues throughout the world to use paid time off to volunteer at local organizations. In addition, AXIS established the Michael A. Butt Fund for Business & Society housed at INSEAD, the global business school, with a \$250,000 endowment. Honoring former AXIS Board Chair Michael Butt, OBE, the Fund will support research on the intersection of business and society, aiming to provide fresh perspectives on critical global issues.

In summary, we are proud of the progress we've made in growing the AXIS Corporate Citizenship program, although we recognize that there is more work to be done as the industry and society continue to grapple with environmental and DEI challenges. In 2023 and beyond, we look forward to continuing our efforts to make a positive impact.



*Photo of Cathrin Merten,
AXIS Zurich Office Manager*

NON-GAAP FINANCIAL MEASURES RECONCILIATION (UNAUDITED)

Year ended December 31, 2022

Year ended December 31, 2021

Consolidated Key Ratios	Insurance	Reinsurance	Total	Insurance	Reinsurance	Total
Current accident year loss ratio excluding catastrophe and weather-related losses	51.0%	62.6%	55.5%	51.4%	59.9%	55.1%
Catastrophe and weather-related losses ratio	6.5%	9.7%	7.8%	6.4%	13.3%	9.5%
Current accident year loss ratio	57.5%	72.3%	63.3%	57.8%	73.2%	64.6%
Prior year reserve development ratio	(0.5%)	(0.4%)	(0.5%)	(0.7%)	(0.6%)	(0.7%)
Net losses and loss expenses ratio	57.0%	71.9%	62.8%	57.1%	72.6%	63.9%
Acquisition cost ratio	18.4%	21.9%	19.8%	18.3%	21.3%	19.6%
Underwriting-related general and administrative expense ratio	14.2%	5.3%	10.7%	16.2%	5.1%	11.3%
Corporate expense ratio			2.5%			2.7%
Combined ratio	89.6%	99.1%	95.8%	91.6%	99.0%	97.5%
Current accident year loss ratio excluding catastrophe and weather related losses	83.6%	89.8%	88.5%	85.9%	86.3%	88.7%

(in thousands)

Years ended

Operating Income	2022	2021
Net income available to common shareholders	\$192,833	\$588,359
Net investment (gains) losses ⁽¹⁾	456,789	(134,279)
Foreign exchange losses (gains) ⁽²⁾	(157,945)	315
Reorganization expenses ⁽³⁾	31,426	-
Interest in (income) loss of equity method investments ⁽⁴⁾	(1,995)	(32,084)
Income tax expense (benefit)	(23,177)	14,166
Operating income	\$497,931	\$436,477

⁽¹⁾ Tax expense (benefit) of \$(36) million and \$11 million for the years ended December 31, 2022 and 2021, respectively. Tax impact is estimated by applying the statutory rates of applicable jurisdictions, after consideration of other relevant factors including the ability to utilize capital losses.

⁽²⁾ Tax expense (benefit) of \$16 million and \$3 million for the years ended December 31, 2022 and 2021, respectively. Tax impact is estimated by applying the statutory rates of applicable jurisdictions, after consideration of other relevant factors including the tax status of specific foreign exchange transactions.

⁽³⁾ Tax expense (benefit) of \$(4) million and \$nil for the years ended December 31, 2022 and 2021, respectively. Tax impact is estimated by applying the statutory rates of applicable jurisdictions.

⁽⁴⁾ Tax expense (benefit) of \$nil for the years ended December 31, 2022 and 2021. Tax impact is estimated by applying the statutory rates of applicable jurisdictions.

(in thousands)

Year ended December 31, 2022

Year ended December 31, 2021

Consolidated Segmental Data	Insurance	Reinsurance	Total	Insurance	Reinsurance	Total
Gross premiums written	\$5,585,581	\$2,629,014	\$8,214,595	\$4,863,232	\$2,822,752	\$7,685,984
Net premiums written	3,377,906	1,885,150	5,263,056	2,894,885	2,031,739	4,926,624
Net premiums earned	3,134,155	2,026,171	5,160,326	2,651,339	2,058,511	4,709,850
Other insurance related income	559	12,514	13,073	1,662	21,633	23,295
Net losses and loss expenses	(1,785,854)	(1,456,556)	(3,242,410)	(1,514,998)	(1,493,785)	(3,008,783)
Acquisition costs	(577,838)	(444,179)	(1,022,017)	(484,344)	(437,490)	(921,834)
Underwriting-related general and administrative expenses ⁽⁵⁾	(443,704)	(106,585)	(550,289)	(429,282)	(107,552)	(536,834)
Underwriting income ⁽⁶⁾	\$327,318	\$31,365	\$358,683	\$224,377	\$41,317	\$265,694
Net investment income			418,829			454,301
Net investment gains (losses)			(456,789)			134,279
Corporate expenses ⁽⁵⁾			(130,054)			(126,470)
Foreign exchange (losses) gains			157,945			(315)
Interest expense and financing costs			(63,146)			(62,302)
Reorganization expenses			(31,426)			-
Amortization of value of business acquired			-			(3,854)
Amortization of intangible assets			(10,917)			(12,424)
Income before income taxes and interest in income of equity method investments			243,125			648,909
Income tax expense			(22,037)			(62,384)
Interest in income of equity method investments			1,995			32,084
Net income			223,083			618,609
Preferred share dividends			30,250			30,250
Net income available to common shareholders			\$192,833			\$588,359

⁽⁵⁾ Underwriting-related general and administrative expenses is a non-GAAP financial measure as defined in SEC Regulation G. The reconciliation to general and administrative expenses, the most comparable GAAP financial measure, also included corporate expenses of \$130 million and \$126 million for the years ended December 31, 2022 and 2021, respectively. Underwriting-related general and administrative expenses and corporate expenses are included in the general and administrative expense ratio.

⁽⁶⁾ Consolidated underwriting income (loss) is a non-GAAP financial measure as defined in SEC Regulation G. The reconciliation to net income (loss), the most comparable GAAP financial measure, is presented in the table above.

RATIONALE FOR THE USE OF NON-GAAP FINANCIAL MEASURES

We present our results of operations in a way we believe will be meaningful and useful to investors, analysts, rating agencies and others who use our financial information to evaluate our performance. Some of the measurements we use are considered non-GAAP financial measures under SEC rules and regulations. In this report, we present underwriting-related general and administrative expenses, consolidated underwriting income (loss) and operating income (loss) which are non-

GAAP financial measures as defined in SEC Regulation G. We believe that these non-GAAP financial measures, which may be defined and calculated differently by other companies, help explain and enhance the understanding of our results of operations. However, these measures should not be viewed as a substitute for those determined in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

UNDERWRITING-RELATED GENERAL AND ADMINISTRATIVE EXPENSES

Underwriting-related general and administrative expenses include those general and administrative expenses that are incremental and/or directly attributable to our underwriting operations. While this measure is presented in the *'Segment Information'* note to our Consolidated Financial Statements, it is considered a non-GAAP financial measure when presented elsewhere on a consolidated basis.

Corporate expenses include holding company costs necessary to support our worldwide insurance and reinsurance operations and costs associated with operating as a publicly-traded company. As these costs are not incremental and/or directly attributable to our underwriting

operations, these costs are excluded from underwriting-related general and administrative expenses, and therefore, consolidated underwriting income (loss). General and administrative expenses, the most comparable GAAP financial measure to underwriting-related general and administrative expenses, also includes corporate expenses.

The reconciliation of underwriting-related general and administrative expenses to general and administrative expenses, the most comparable GAAP financial measure, is presented in the *'Consolidated Segmental Data'* section of this report.

CONSOLIDATED UNDERWRITING INCOME (LOSS)

Consolidated underwriting income (loss) is a pre-tax measure of underwriting profitability that takes into account net premiums earned and other insurance related income (loss) as revenues and net losses and loss expenses, acquisition costs and underwriting-related general and administrative expenses as expenses. While this measure is presented in the *'Segment Information'* note to our Consolidated Financial Statements, it is considered a non-GAAP financial measure when presented elsewhere on a consolidated basis.

We evaluate our underwriting results separately from the performance of our investment portfolio. As a result, we believe it is appropriate to exclude net investment income and net investment gains (losses) from our underwriting profitability measure.

Foreign exchange losses (gains) in our consolidated statements of operations primarily relate to the impact of foreign exchange rate movements on our net insurance-related liabilities. However, we manage our investment portfolio in such a way that unrealized and realized foreign exchange losses (gains) on our investment portfolio, including unrealized foreign exchange losses (gains) on our equity securities, and foreign exchange losses (gains) realized on the sale of our available for sale investments and equity securities recognized in net investment gains (losses), and unrealized foreign exchange losses (gains) on our available for sale investments recognized in other comprehensive income (loss), generally offset a large portion of the foreign exchange losses (gains) arising from our underwriting portfolio, thereby minimizing the impact of foreign exchange rate movements on total shareholders' equity. As a result, we believe that foreign exchange losses (gains) in our consolidated statements of operations in isolation are not a meaningful contributor to our underwriting performance, therefore, foreign exchange losses (gains) are excluded from consolidated underwriting income (loss).

Interest expense and financing costs primarily relate to interest payable on our debt. As these expenses are not incremental and/or directly attributable to our underwriting operations, these expenses are excluded from underwriting-related general and administrative expenses, and therefore, consolidated underwriting income (loss).

Reorganization expenses include compensation-related costs and software asset impairments mainly attributable to our exit from catastrophe and property reinsurance lines of business, part of an overall approach to reduce our exposure to volatile catastrophe risk, announced in June 2022. Reorganization expenses are primarily driven by business decisions, the nature and timing of which are not related to the underwriting process, therefore, these expenses are excluded from consolidated underwriting income (loss).

Amortization of intangible assets including value of business acquired ("VOBA") arose from business decisions, the nature and timing of which are not related to the underwriting process, therefore, these expenses are excluded from consolidated underwriting income (loss).

We believe that the presentation of underwriting-related general and administrative expenses and consolidated underwriting income (loss) provides investors with an enhanced understanding of our results of operations by highlighting the underlying pre-tax profitability of our underwriting activities. The reconciliation of consolidated underwriting income (loss) to net income (loss), the most comparable GAAP financial measure, is presented in the *'Consolidated Segmental Data'* section of this report.

OPERATING INCOME (LOSS)

Operating income (loss) represents after-tax operational results exclusive of net investment gains (losses), foreign exchange losses (gains), reorganization expenses, and interest in income (loss) of equity method investments.

Although the investment of premiums to generate income and investment gains (losses) is an integral part of our operations, the determination to realize investment gains (losses) is independent of the underwriting process and is heavily influenced by the availability

of market opportunities. Furthermore, many users believe that the timing of the realization of investment gains (losses) is somewhat opportunistic for many companies.

Foreign exchange losses (gains) in our consolidated statements of operations primarily relate to the impact of foreign exchange rate movements on net insurance-related liabilities. However, we manage our investment portfolio in such a way that unrealized and realized foreign exchange losses (gains) on our investment portfolio, including

unrealized foreign exchange losses (gains) on our equity securities, and foreign exchange losses (gains) realized on the sale of our available for sale investments and equity securities recognized in net investment gains (losses), and unrealized foreign exchange losses (gains) on our available for sale investments recognized in other comprehensive income (loss), generally offset a large portion of the foreign exchange losses (gains) arising from our underwriting portfolio, thereby minimizing the impact of foreign exchange rate movements on total shareholders' equity. As a result, we believe that foreign exchange losses (gains) in our consolidated statements of operations in isolation are not a meaningful contributor to the performance of our business, therefore, foreign exchange losses (gains) are excluded from operating income (loss).

Reorganization expenses include compensation-related costs and software asset impairments mainly attributable to our exit from catastrophe and property reinsurance lines of business, part of an overall approach to reduce our exposure to volatile catastrophe risk, announced in June 2022. Reorganization expenses are primarily driven by business decisions, the nature and timing of which are not related to the underwriting process, therefore, these expenses are excluded from operating income (loss).

Interest in income (loss) of equity method investments is primarily driven by business decisions, the nature and timing of which are not related to the underwriting process, therefore, this income (loss) is excluded from operating income (loss).

Certain users of our financial statements evaluate performance exclusive of after-tax net investment gains (losses), foreign exchange losses (gains), reorganization expenses, and interest in income (loss) of equity method investments to understand the profitability of recurring sources of income.

We believe that showing net income (loss) available (attributable) to common shareholders exclusive of after-tax net investment gains (losses), foreign exchange losses (gains), reorganization expenses, and interest in income (loss) of equity method investments reflects the underlying fundamentals of our business. In addition, we believe that this presentation enables investors and other users of our financial information to analyze performance in a manner similar to how our management analyzes the underlying business performance. We also believe this measure follows industry practice and, therefore, facilitates comparison of our performance with our peer group. We believe that equity analysts and certain rating agencies that follow us, and the insurance industry as a whole, generally exclude these items from their analyses for the same reasons. The reconciliation of operating income (loss) to net income (loss) available (attributable) to common shareholders, the most comparable GAAP financial measure, is presented in the 'Non-GAAP Financial Measures Reconciliation' section of this report.

GROUP CONSOLIDATED DATA - EXCLUDING REINSURANCE CATASTROPHE AND PROPERTY

(in thousands)	Group Total Year-to-date		Reinsurance Catastrophe and Property ^(a) Year-to-date		Group Total excluding Reinsurance Catastrophe and Property ^(a) Year-to-date	
	Q4 2022	Q4 2021	Q4 2022	Q4 2021	Q4 2022	Q4 2021
Underwriting Revenues						
Gross written premiums	\$8,214,595	\$7,685,984	\$326,303	\$705,804	\$7,888,292	\$6,980,181
Ceded premiums written	(2,951,539)	(2,759,360)	(144,766)	(295,065)	(2,806,773)	(2,464,295)
Net premiums written	5,263,056	4,926,624	181,537	410,738	5,081,519	4,515,886
Gross premiums earned	7,936,382	7,281,709	445,881	772,405	7,490,501	6,509,304
Ceded premiums earned	(2,776,056)	(2,571,859)	(154,168)	(302,537)	(2,621,888)	(2,269,321)
Net premiums earned	5,160,326	4,709,850	291,713	469,868	4,868,613	4,239,983
Other insurance related income (loss)	13,073	23,295	218	(188)	12,855	23,484
Total underwriting revenues	5,173,399	\$4,733,145	\$291,931	469,679	4,881,468	4,263,466
Underwriting Expenses						
Net losses and loss expenses	3,242,410	3,008,783	203,955	411,495	3,038,455	\$2,597,288
Acquisition costs	1,022,017	921,834	51,846	81,891	970,171	839,943
Underwriting-related general and administrative expenses	550,289	536,834	13,312	12,672	536,977	524,162
Total underwriting expenses	4,814,716	4,467,451	269,113	506,059	4,545,602	3,961,392
Underwriting income (loss)	\$358,683	\$265,694	\$22,818	(\$36,379)	\$335,866	\$302,074

^(a) Underwriting-related general and administrative expenses reflect the expected allocation of corporate costs necessary to support ongoing Specialty Reinsurance operations.

AXIS DIRECTORS

Albert A. Benchimol

President and Chief Executive Officer, AXIS Capital

- *Executive Committee*

Henry B. Smith

Chair of the Board, AXIS Capital and former CEO, Bank of Bermuda Limited, and W.P. Stewart & Co., Ltd.

- *Executive Committee, Chair*

W. Marston Becker

Former Chairman, QBE Insurance Group

- *Executive Committee*
- *Human Capital and Compensation Committee*
- *Risk Committee, Chair*

Charles A. Davis

Chief Executive Officer, Stone Point Capital LLC

- *Executive Committee*
- *Finance Committee*
- *Risk Committee*

Anne Melissa Dowling

Former Director of Insurance, State of Illinois

- *Finance Committee, Chair*
- *Risk Committee*

Elanor R. Hardwick

Former Chief Digital Officer, UBS

- *Corporate Governance, Nominating and Social Responsibility Committee*
- *Human Capital and Compensation Committee*

Michael Millegan

Founder and CEO, Millegan Advisory Group 3 LLC and former President of Verizon Global Wholesale Group

- *Finance Committee*
- *Human Capital and Compensation Committee, Chair*

Thomas C. Ramey

Former Chairman and President, Liberty International, Liberty Mutual Group

- *Audit Committee*
- *Corporate Governance, Nominating and Social Responsibility Committee*

Axel Theis

Former Member of Allianz SE Board of Management

- *Audit Committee*
- *Risk Committee*

Barbara A. Yastine

Former Chair, President and Chief Executive Officer, Ally Bank

- *Audit Committee*
- *Corporate Governance, Nominating and Social Responsibility Committee, Chair*

Lizabeth H. Zlatkus

Former Chief Financial Officer and Former Chief Risk Officer, The Hartford Financial Services Group, Inc.

- *Audit Committee, Chair*
- *Executive Committee*
- *Finance Committee*

EXECUTIVE OFFICERS

Albert A. Benchimol

President and Chief Executive Officer

Vincent C. Tizzio

CEO Specialty Insurance and Reinsurance
Future Group CEO effective May 4, 2023

Peter J. Vogt

Chief Financial Officer

Conrad D. Brooks

General Counsel

David S. Phillips

Chief Investment Officer

Dan Draper

Group Chief Underwriting Officer





Courtesy of the NYSE

SHAREHOLDER INFORMATION

Annual Meeting

Date:

May 4, 2023 at 8:30 a.m. ADT

Location:

AXIS House, 92 Pitts Bay Road
Pembroke HM 08, Bermuda

Independent Registered Public Accounting Firm

Deloitte Ltd.

Corner House, 20 Parliament Street
Hamilton HM 12, Bermuda

Investor Relations

For copies of AXIS Capital's Annual Report, Forms 10-K and 10-Q or other reports filed with or furnished to the Securities and Exchange Commission:

Visit:

The Investors section of www.axiscapital.com

Email:

Investor Relations Department of AXIS Capital
at investorrelations@axiscapital.com

For Other Investor Relations Inquiries

Write to:

Head of Investor Relations
AXIS Capital Holdings Limited
AXIS House, 92 Pitts Bay Road
Pembroke HM 08, Bermuda

Call:

1.441.496.2600

Email:

investorrelations@axiscapital.com

Transfer Agent and Registrar

The Transfer Agent for AXIS Capital is Computershare.
For shareholder inquiries, please contact Computershare:

By regular mail:

P.O. Box 43006
Providence, RI 02940-3006

By overnight delivery:

150 Royall Street Suite 101
Canton, MA 02021

Call:

1.800.522.6645 (within the U.S.)
1.201.680.6578 (outside the U.S.)
Hearing Impaired TDD: 1.800.952.9245

Website:

www.computershare.com

This report contains forward-looking statements within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical facts included in this report, including statements regarding our estimates, beliefs, expectations, intentions, strategies or projections are forward-looking statements. We intend these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements in the United States federal securities laws. In some cases, these statements can be identified by the use of forward-looking words such as "may", "should", "could", "anticipate", "estimate", "expect", "plan", "believe", "predict", "potential", "intend" or similar expressions. These forward-looking statements are not historical facts, and are based on current expectations, estimates and projections, and various assumptions, many of which, by their nature, are inherently uncertain and beyond management's control. These statements include, among other things, statements about our mix of business, product offerings, catastrophe losses and strategic initiatives. Results may differ materially from those expressed or implied by forward-looking statements. Factors that can cause results to differ materially include those described under "Forward Looking Statements" in AXIS Capital's most recent Form 10-K and Form 10-Qs filed with the SEC and available on our website. AXIS Capital undertakes no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.



2022 FORM 10-K

READY *for this* MOMENT



**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-K

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to
Commission file number 001-31721

AXIS CAPITAL HOLDINGS LIMITED

(Exact name of registrant as specified in its charter)

Bermuda

(State or other jurisdiction of incorporation or organization)

98-0395986

(I.R.S. Employer Identification No.)

92 Pitts Bay Road, Pembroke, Bermuda HM 08

(Address of principal executive offices and zip code)

(441) 496-2600

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common shares, par value \$0.0125 per share	AXS	New York Stock Exchange
Depository shares, each representing a 1/100th interest in a 5.50% Series E preferred share	AXS PRE	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes No

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, computed by reference to the closing price at the last business day of the registrant's most recently completed second fiscal quarter, June 30, 2022, was approximately \$4.8 billion.

At February 22, 2023, there were 84,710,662 common shares outstanding, \$0.0125 par value per share, of the registrant.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A relating to the annual meeting of shareholders to be held on May 4, 2023 are incorporated by reference in response to items 10, 11, 12, 13 and 14 in Part III of this Form 10-K. The definitive proxy statement will be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year ended December 31, 2022.

AXIS CAPITAL HOLDINGS LIMITED

TABLE OF CONTENTS

	Page
PART I	
Item 1. Business	4
Item 1A. Risk Factors	32
Item 1B. Unresolved Staff Comments	54
Item 2. Properties	54
Item 3. Legal Proceedings	54
Item 4. Mine Safety Disclosures	54
PART II	
Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	55
Item 6. Reserved	55
Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations	56
Item 7A. Quantitative and Qualitative Disclosure About Market Risk	106
Item 8. Financial Statements and Supplementary Data	109
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	223
Item 9A. Controls and Procedures	223
Item 9B. Other Information	225
Item 9C. Disclosure Regarding Foreign Jurisdictions That Prevent Inspections	225
PART III	
Item 10. Directors, Executive Officers and Corporate Governance	225
Item 11. Executive Compensation	225
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	225
Item 13. Certain Relationships and Related Transactions, and Director Independence	226
Item 14. Principal Accounting Fees and Services	226
PART IV	
Item 15. Exhibits and Financial Statement Schedules	226
Item 16. Form 10-K Summary	231

Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical facts included in this report, including statements regarding our estimates, beliefs, expectations, intentions, strategies or projections are forward-looking statements. We intend these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements in the United States ("U.S.") federal securities laws. In some cases, these statements can be identified by the use of forward-looking words such as "may", "should", "could", "anticipate", "estimate", "expect", "plan", "believe", "predict", "potential", "intend" or similar expressions. These forward-looking statements are not historical facts, and are based on current expectations, estimates and projections, and various assumptions, many of which, by their nature, are inherently uncertain and beyond management's control.

Forward-looking statements contained in this report may include, but are not limited to, information regarding our estimates for catastrophes and other weather-related losses, including losses related to the COVID-19 pandemic, measurements of potential losses in the fair market value of our investment portfolio and derivative contracts, our expectations regarding the performance of our business, our financial results, our liquidity and capital resources, the outcome of our strategic initiatives including our exit from catastrophe and property reinsurance lines of business, our expectations regarding pricing, and other market and economic conditions including inflation, our growth prospects, and valuations of the potential impact of movements in interest rates, credit spreads, equity securities' prices, and foreign currency exchange rates.

Forward-looking statements only reflect our expectations and are not guarantees of performance. These statements involve risks, uncertainties and assumptions. Accordingly, there are or will be important factors that could cause actual events or results to differ materially from those indicated in such statements.

We believe that these factors include, but are not limited to, those described below in *'Summary of Risk Factors'* and in more detail under Item 1A, *'Risk Factors'* of this report, as those factors may be updated from time to time in our periodic and other filings with the Securities and Exchange Commission (the "SEC"), which are accessible on the SEC's website at www.sec.gov.

We undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

In this Form 10-K, references to "AXIS Capital" refer to AXIS Capital Holdings Limited and references to "we", "us", "our", "AXIS", the "Group" or the "Company" refer to AXIS Capital Holdings Limited and its direct and indirect subsidiaries and branches.

Summary of Risk Factors

Investing in our common stock involves substantial risks, and our ability to successfully operate our business is subject to numerous risks, including those that are generally associated with operating in the insurance/reinsurance industry. Some of the more significant material challenges and risks include the following:

Insurance Risk

Insurance risk is the inherent uncertainty as to the occurrence, amount and timing of insurance and reinsurance liabilities transferred to us through the underwriting process.

- The insurance and reinsurance business is historically cyclical, and we expect to experience periods with excess underwriting capacity and unfavorable premium rates.
- We may be adversely impacted by a wide variety of natural catastrophes or man-made catastrophes. The incidence and severity of catastrophes are inherently unpredictable, and losses from catastrophes could be substantial. Our exposure to natural catastrophe losses may be increased by climate change, where we may have exposure to physical, transition and liability risks, as well as increasing regulation in the area of climate change. Other man-made catastrophes, such as cyber-attacks, remain relatively new and fast-evolving and therefore incorporate high degrees of uncertainty around the extent of their impact.
- We may be adversely affected by the effects of emerging claims, systemic risks and coverage issues and/or if actual claims exceed our reserves for losses and loss expenses ("loss reserves"). The actual final cost of settling outstanding claims, as well as claims expected to arise from the unexpired period of risk, is uncertain. There are many other factors

that would cause loss reserves to increase or decrease, which include, but are not limited to, emerging claims, systemic risks and coverage issues such as changes in claim severity, changes in the expected level of reported claims, judicial action changing the scope and/or liability of coverage, changes in the legislative, regulatory, social and economic environment, and unexpected changes in loss costs due to inflation.

- We may be adversely impacted by inflation. Our operations, like those of other insurers and reinsurers, are susceptible to the effects of inflation because premiums are established before the ultimate amounts of losses and loss expenses are known.
- We may be adversely affected by the failure of our loss limitation strategy, including the use of reinsurance.
- We may be adversely affected by the failure of models used to support key decisions.

Strategic Risk

Strategic risks affect or are created by an organization's business strategy and strategic objectives. Our review of strategic risk evaluates not only internal and external challenges that might cause our chosen strategy to fail but also evaluates major risks that could affect our long-term performance and position.

- We may be adversely affected by competition and consolidation in the insurance and reinsurance industry. Increased competition could result in fewer submissions, lower premium rates, less favorable policy terms and conditions, and greater costs of customer acquisition and retention.
- We have been and may continue to be adversely affected by a deterioration in global economic conditions. Economic uncertainty and market turmoil has affected and may in the future affect, among other aspects of our business, the demand for and claims made under our products, the ability of customers, counterparties and others to establish or maintain their relationships with us, our ability to access and efficiently use internal and external capital resources and our investment performance and portfolio. A persistent low interest rate environment may reduce our profitability as investment income falls.
- We may be adversely affected by the exit of the United Kingdom ("U.K.") from the E.U.
- We may be adversely affected by loss of business provided by a major broker.
- We may be adversely affected by a downgrade in our financial strength or credit rating. If we experience a credit rating downgrade, withdrawal or negative watch/outlook in the future, we could incur higher borrowing costs and may have more limited means to access capital. It could also result in a substantial loss of business for us.
- We may be adversely affected by the increasing scrutiny and evolving expectations from investors, customers, regulators, policymakers and other stakeholders regarding environmental, social and governance matters.

COVID-19

We have been and may continue to be adversely affected by the ongoing novel coronavirus (COVID-19) pandemic. The pandemic continues to pose a risk and the impacts from the pandemic potentially interact with all areas of our business and exacerbate many of the other risk factors described in this report. The threat and outcome are better understood now than in the earlier stages, but the ultimate scale and scope remain uncertain and the impact on our business, results of operations, financial condition and liquidity could be material.

Market Risk

Market risk is the risk that our financial instruments may be negatively impacted by movements in financial market prices or foreign currency exchange rates.

- Our investment and derivative instrument portfolios may be adversely impacted by capital markets risk related to changes in interest rates, credit spreads, equity securities' prices and other factors.
- Our operating results may be adversely affected by foreign currency exchange rate fluctuations.

Liquidity Risk

Liquidity risk is the risk that we may not have sufficient cash to meet our obligations when they are due, or would have to incur excessive costs to do so.

- Our underwriting activities may expose us to liquidity risk. This stems mainly from the need to pay claims on potential extreme loss events and regulatory constraints that limit the flow of funds within the Group.

Credit Risk

Credit risk represents the risk of incurring financial loss due to the diminished creditworthiness (reduced financial strength and, ultimately, possibly default) of our third-party counterparties.

- We may be adversely impacted if we are unable to collect amounts due to us from our counterparties – most materially reinsurers, but also including brokers, agents and customers.

Operational Risk

Operational risk represents the risk of loss as a result of inadequate processes, system failures, human error or external events, including but not limited to direct or indirect financial loss, reputational damage, customer dissatisfaction, and legal and regulatory penalties.

- We may be adversely impacted by failure of the processes, people or systems that we rely on to maintain our operations and manage the operational risks inherent to our business, including those outsourced to third parties.

Regulatory Risk

Regulatory risk represents the risk arising from our failure to comply with legal, statutory or regulatory obligations.

- Our insurance and reinsurance subsidiaries conduct business globally and are subject to varying degrees of regulation, including data protection and privacy laws, in multiple jurisdictions. We may be adversely affected if we fail to comply fully with, or obtain exemption from, relevant regulations.

Risks Related to the Ownership of our Securities

- In addition to the risks to our business listed above, there are certain other risks related to the ownership of our securities, for example relating to our holding company structure or provisions in our organizational documents and bye-laws.

Risks Related to Taxation

- We may be adversely impacted by changes in tax rules or changes in the interpretation of existing tax rules in the multiple jurisdictions in which we operate.

Readers should carefully consider the risks noted above together with the risks detailed in Item 1A, 'Risk Factors' and all of the other information included in this report.

Website and Social Media Disclosure

We use our website (www.axiscapital.com) and our corporate LinkedIn (AXIS Capital) and Twitter (@AXIS_Capital) accounts as channels of distribution of Company information. The information we post through these channels may be deemed material. Accordingly, investors should monitor these channels, in addition to following our press releases, SEC filings and public conference calls and webcasts. In addition, e-mail alerts and other information about AXIS Capital may be received by those enrolled in our "E-mail Alerts" program, which can be found in the Investor Information section of our website (www.axiscapital.com). The contents of our website and social media channels are not part of this Annual Report on Form 10-K.

PART I

ITEM 1. BUSINESS

In this Form 10-K, references to "AXIS Capital" refer to AXIS Capital Holdings Limited and references to "we", "us", "our", "AXIS", the "Group" or the "Company" refer to AXIS Capital Holdings Limited and its direct and indirect subsidiaries and branches, including: AXIS Specialty Holdings Bermuda Limited, AXIS Specialty Limited ("AXIS Specialty Bermuda"), AXIS Specialty Limited (Singapore Branch), AXIS Specialty Investments Limited, AXIS Specialty Investments II Limited, AXIS Specialty UK Holdings Limited, AXIS Managing Agency Ltd., AXIS Corporate Capital UK Limited (corporate member which provides 70% capital support to AXIS Syndicate 1686 ("Syndicate 1686")), Novae Group Limited, AXIS UK Services Limited, AXIS UK Services Limited (Irish Branch), AXIS Underwriting Limited, AXIS Corporate Capital UK II Limited (corporate member which provides 30% capital support to Syndicate 1686), AXIS ILS, Ltd. (formerly AXIS Ventures Limited ("AXIS Ventures")), AXIS Reinsurance Managers Limited ("AXIS Reinsurance Managers"), AXIS Specialty Holdings Ireland Limited, AXIS Specialty Europe SE ("AXIS Specialty Europe"), AXIS Specialty Europe SE (U.K. Branch), AXIS Specialty Europe SE (Belgium Branch), AXIS Re SE, AXIS Re SE, Dublin (Zurich Branch) ("AXIS Re Europe"), AXIS Re SE Escritório de Representação No Brasil Ltda., AXIS Specialty Global Holdings Limited, AXIS Specialty U.S. Holdings, Inc., AXIS Reinsurance Company ("AXIS Re U.S."), AXIS Reinsurance Company (Canadian Branch), AXIS Specialty U.S. Services, Inc., AXIS Specialty U.S. Services, Inc. (U.K. Branch), AXIS Specialty Canada Services, ULC, AXIS Group Services, Inc., AXIS ILS, Inc. (formerly AXIS Specialty Underwriters, Inc.), AXIS Insurance Company ("AXIS Insurance Co."), AXIS Surplus Insurance Company ("AXIS Surplus"), AXIS Group Benefits LLC (formerly Ternian Insurance Group LLC), AXIS Specialty Insurance Company ("AXIS Specialty U.S."), AXIS Specialty Finance LLC and AXIS Specialty Finance PLC, unless the context suggests otherwise.

Unless otherwise noted, tabular dollars are in thousands. Amounts may not reconcile due to rounding differences.

General

AXIS is a global specialty underwriter and provider of insurance and reinsurance solutions with operations in Bermuda, the United States ("U.S."), Europe, Singapore and Canada. Our underwriting operations are organized around our global underwriting platforms, AXIS Insurance and AXIS Re.

The markets in which we operate have historically been cyclical. During periods of reduced underwriting capacity, pricing and policy terms and conditions are generally more favorable for insurers and reinsurers. Conversely, during periods of excess underwriting capacity, defined by the availability of capital, competition can result in lower pricing and less favorable policy terms and conditions for insurers and reinsurers. Historically, underwriting capacity has been impacted by a range of factors, including systemic risks such as industry losses and catastrophes, as well as changes in legal, regulatory and rating agency guidelines, investment results, and the financial strength and ratings of competitors.

In 2022, we leveraged firming market conditions to increase our relevance in a number of attractive specialty lines insurance and treaty reinsurance markets and we continued to re-balance our portfolio towards less volatile lines of business. At December 31, 2022, we had common shareholders' equity of \$4.1 billion, total capital of \$6.0 billion and total assets of \$27.6 billion.

Our Business Strategy

We are a global specialty underwriter and provider of insurance and reinsurance solutions and are a leader in many of the markets where we choose to compete. We provide our clients and distribution partners with a broad range of risk transfer products and services, and strong capacity, backed by excellent financial strength. We manage our portfolio holistically, aiming to construct the optimum balance of risks, consistent with our risk appetite and the development of our franchise. We nurture an ethical, entrepreneurial, disciplined and diverse culture that promotes outstanding client service, intelligent risk taking, operating efficiency, corporate citizenship and the achievement of superior risk-adjusted returns for our shareholders. We believe that the achievement of our objectives will position us as a global leader in specialty risks, enabling us to deliver sustained profitable growth and increased shareholder value.

We aim to execute on our business strategy through the following multi-pronged approach:

We offer a diversified range of products and services across market segments and geographies: Our position as a global specialty underwriter and provider of insurance and reinsurance solutions gives us insight into the opportunities and challenges in a variety of markets. We are headquartered in Bermuda and have locations in the U.S., Canada and Europe including Dublin, London, Zurich and Brussels. Our Singapore office serves as our regional hub in Asia and provides specialty insurance and reinsurance solutions in the Asia Pacific region. We service the Latin America specialty insurance and facultative reinsurance market through London and our other locations.

We underwrite a balanced portfolio of risks, including complex and volatile lines, moderating overall volatility with risk limits, diversification and risk management: Risk management is a strategic priority embedded in our organizational structure and we are continuously monitoring, reviewing and refining our enterprise risk management practices. We combine judgment and experience with data-driven analysis, enhancing our overall risk selection process.

We modulate our risk appetite and deployment of capital across the underwriting cycle, commensurate with available market opportunities and returns: In response to market dynamics, we recognize opportunities as they develop and react quickly as new trends emerge. Our risk analytics provide important and continuous feedback, further assisting with the ongoing assessment of our risk appetite and strategic capital deployment. We have been successful in extending our product lines, finding new distribution channels and entering new geographies. When we do not find sufficiently attractive uses for our capital, we may return excess capital to our shareholders through share repurchases and dividends.

We develop and maintain deep, trusting and mutually beneficial relationships with clients and distribution partners, offering high levels of service and effective solutions for risk management needs: Our management team has extensive industry experience, deep product knowledge, long-standing market relationships and a top caliber claims capability. We primarily transact in specialty markets, where risks are complex, and are also growing our transactional specialty business targeting the lower middle market. We invest in data and technology capabilities and tools to empower our underwriters and enhance the service that we provide to our customers. Our intellectual capital and proven client-service capability attract clients and distribution partners looking for solutions.

We maintain excellent financial strength, characterized by financial discipline and transparency: Our total capital of \$6.0 billion at December 31, 2022, as well as our high-quality and liquid investment portfolio and our operating subsidiary ratings of "A+" ("Strong") by Standard & Poor's and "A" ("Excellent") by the A.M. Best Company, Inc. ("A.M. Best") are key indicators of our financial strength.

We attract, develop, retain and motivate teams of experts: We aim to attract and retain top talent in the industry and to motivate our employees to make decisions that are in the best interest of our clients and shareholders. We cultivate a culture that prioritizes ethics, risk awareness and achievement, while also promoting diversity, professionalism, responsibility, integrity, discipline and entrepreneurship. As a result, we believe that our staff is well-positioned to make the best underwriting and strategic decisions for AXIS.

In 2022, our key financial metrics for performance measurement of the Company included operating return on average common equity ("operating ROACE"), which is reconciled to the most comparable GAAP financial measure, return on average common equity ("ROACE"), in Item 7 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Non-GAAP Financial Measures Reconciliation', on an annual basis and relative total shareholder return ("TSR") over the long-term. We believe that the successful execution against long-term strategic plans should drive an increase in TSR over the long-term, and that TSR directly correlates to other relevant key performance metrics, including growth in book value per diluted common share adjusted for dividends. Our goal is to deliver sustained profitable growth and increased shareholder value.

Segment Information

Our underwriting operations are organized around our global underwriting platforms, AXIS Insurance and AXIS Re. We have determined that we have two reportable segments, insurance and reinsurance. We do not allocate assets by segment, with the exception of goodwill and intangible assets.

Refer to Item 7 'Management's Discussion and Analysis of Financial Condition and Results of Operations' for additional information relating to our reportable segments and Item 8, Note 3 to the Consolidated Financial Statements 'Segment Information' for additional information relating to our reportable segments and a description of the geographic distribution of gross premiums written based on the location of our subsidiaries.

The table below presents gross premiums written in each of our reportable segments for each of the most recent three years:

Year ended December 31,	2022	2021	2020
Insurance	\$ 5,585,581	\$ 4,863,232	\$ 4,018,399
Reinsurance	2,629,014	2,822,752	2,808,539
Total	\$ 8,214,595	\$ 7,685,984	\$ 6,826,938

Insurance Segment

Lines of Business and Distribution

Our insurance segment offers specialty insurance products to a variety of niche markets on a worldwide basis. The following are the lines of business in our insurance segment:

- *Professional Lines:* provides directors' and officers' liability, errors and omissions liability, employment practices liability, fiduciary liability, crime, professional indemnity, medical malpractice and other financial insurance related covers for public and private commercial enterprises, financial institutions, not-for-profit organizations and other professional service providers. This business is predominantly written on a claims-made basis.
- *Property:* provides physical loss or damage, business interruption and machinery breakdown cover for virtually all types of property, including commercial buildings, residential premises, construction projects, and onshore renewable energy installations, and physical damage and business interruption following an act of terrorism. This line of business includes primary and excess risks, some of which are catastrophe-exposed.
- *Liability:* primarily targets primary and low to mid-level excess and umbrella commercial liability risks in the U.S. wholesale markets in addition to primary and excess of loss employers, public, and products liability business predominately in the U.K. Target industry sectors include construction, manufacturing, transportation and trucking, and other services.
- *Cyber:* provides cover for cyber, technology errors and omissions, media and miscellaneous professional liability. Cover is provided for a range of risks including data recovery and bricking, cyber-crime, liability and regulatory actions, business interruption, extortion, reputational harm, Payment Card Industry Data Security Standard and media liability.
- *Marine and Aviation:* Marine provides cover for traditional marine classes, including offshore energy, renewable offshore energy, cargo, liability including kidnap and ransom, fine art, specie, and hull war. Offshore energy coverages include physical damage, business interruption, operator's extra expense and liability coverage for all aspects of offshore upstream energy from exploration and construction through the operation and distribution phases. Aviation provides hull and liability, and specific war cover primarily for passenger airlines but also for cargo operations, general aviation operations, airports, aviation authorities, security firms and product manufacturers.
- *Accident and Health:* includes personal accident, travel insurance and specialty health products for employer and affinity groups, and pet insurance.
- *Credit and Political Risk:* provides credit and political risk insurance products for banks, commodity traders, corporations and multilateral and export credit agencies. Cover is provided for a range of risks including sovereign and corporate credit default, political violence, currency inconvertibility and non-transfer, expropriation, aircraft non-repossession and contract frustration due to political events.

We produce business primarily through wholesale and retail brokers worldwide. Some of our insurance products are also distributed through managing general agents ("MGAs") and managing general underwriters ("MGUs"). In the U.S., we have the ability to write business on an admitted basis using forms and rates filed with state insurance regulators and on a non-admitted or surplus lines basis, which provides flexibility in forms and rates, as these are not filed with state regulators. Our ability to write business on a non-admitted basis in the U.S. provides us with the pricing flexibility needed to write non-standard coverages. Substantially all of our insurance business is subject to aggregate limits, in addition to event limits.

Gross premiums written by broker, shown individually where premiums by broker were 10% or more of the total in any of the last three years, were as follows:

Years ended December 31,	2022		2021		2020	
Aon plc	\$ 697,103	12 %	\$ 621,879	13 %	\$ 485,113	12 %
Marsh & McLennan Companies Inc.	630,085	11 %	548,964	11 %	496,913	12 %
AmWINS Group Inc.	605,727	11 %	491,690	10 %	409,951	10 %
Other brokers	2,746,828	50 %	2,423,379	50 %	1,900,736	48 %
Managing general agencies and underwriters	905,838	16 %	777,320	16 %	725,686	18 %
Total	\$ 5,585,581	100 %	\$ 4,863,232	100 %	\$ 4,018,399	100 %

No insured accounted for more than 10% of the gross premiums written in the insurance segment.

Competitive Environment

In our insurance segment, where competition is focused on price, service, availability of capacity, appetite and distribution, among other considerations, we compete globally and locally with North American and non-North American carriers. We believe we can achieve positive differentiation through underwriting expertise in our chosen lines of business and market segments, providing customized solutions for our strategic partners and top caliber claims service levels to our customers. In addition, our investment in building an agile business model is expected to enable us to more quickly bring innovative products and services to market while delivering value to our customers and driving profitable growth.

Reinsurance Segment

Lines of Business and Distribution

Our reinsurance segment provides treaty reinsurance to insurance companies on a worldwide basis, written on an excess of loss or a proportional basis. For excess of loss business, we typically indemnify the reinsured for a portion of losses, individually and in the aggregate, in excess of a specified individual or aggregate loss deductible. For proportional business, we assume an agreed percentage of the underlying premiums and accept liability for the same percentage of losses and loss expenses. Our business is primarily produced through reinsurance brokers worldwide. The following are the lines of business in our reinsurance segment:

- *Liability*: provides protection to insurers of admitted casualty business, excess and surplus lines casualty business and specialty casualty programs. The primary focus of the underlying business is general liability, workers' compensation, auto liability, and excess casualty.
- *Accident and Health*: includes personal accident, specialty health, accidental death, travel, life and disability reinsurance products which are offered on a proportional and catastrophic or per life excess of loss basis.
- *Professional Lines*: provides protection for directors' and officers' liability, employment practices liability, medical malpractice, professional indemnity, environmental liability, cyber, and miscellaneous errors and omissions insurance risks. The underlying business is predominantly written on a claims-made basis. This business is written on a proportional and excess of loss basis.
- *Credit and Surety*: Credit reinsurance provides reinsurance of trade credit insurance products and includes proportional and excess of loss structures. The underlying insurance indemnifies sellers of goods and services in the event of a payment default by the buyer of those goods and services. Surety reinsurance provides protection for losses arising from a broad array of surety bonds issued by insurers to satisfy regulatory demands or contract obligations in a variety of jurisdictions around the world. Mortgage reinsurance is provided to mortgage guaranty insurers and U.S. government-sponsored entities for losses related to credit risk transfer into the private sector.

- *Motor*: provides protection to insurers for motor liability and property damage losses arising out of any one occurrence. A loss occurrence can involve one or many claimants where the ceding insurer aggregates the claims from the occurrence. Traditional proportional and non-proportional reinsurance as well as structured solutions are offered.
- *Agriculture*: provides protection for risks associated with the production of food and fiber on a global basis for primary insurance companies writing multi-peril crop insurance, crop hail, and named peril covers, as well as custom risk transfer mechanisms for agricultural dependent industries with exposures to crop yield and/or price deviations. This business is written on a proportional and aggregate stop loss reinsurance basis.
- *Marine and Aviation*: Marine includes specialty marine classes such as cargo, hull, pleasure craft, marine liability, inland marine and offshore energy. The principal perils covered by policies in this portfolio include physical loss, damage and/or liability arising from natural perils of the seas or land, man-made events including fire and explosion, stranding/sinking/salvage, pollution, shipowners and maritime employers liability. This business is written on a non-proportional and proportional basis. Aviation provides cover for airline, aerospace and general aviation exposures. This business is written on a proportional and non-proportional basis. The Company exited Aviation business effective January 1, 2023.

Run-off lines

- *Catastrophe*: provides protection for most catastrophic losses that are covered in the underlying insurance policies written by our cedants. The underlying policies principally cover property-related exposures but other exposures including workers compensation and personal accident are also covered. The principal perils covered by policies in this portfolio include hurricane and windstorm, earthquake, flood, tornado, hail and fire. In some instances, terrorism may be a covered peril or the only peril. This business is written on a proportional and an excess of loss basis. The Company exited this line of business in June 2022.
- *Property*: provides protection for property damage and related losses resulting from natural and man-made perils that are covered in the underlying personal and commercial lines insurance policies written by our cedants. The predominant exposure is to property damage, but other risks, including business interruption and other non-property losses, may also be covered when arising from a covered peril. The most significant perils covered by policies in this portfolio include windstorm, tornado and earthquake, but other perils such as freezes, riots, floods, industrial explosions, fires, hail and a number of other loss events are also included. This business is written on a proportional and excess of loss basis. The Company exited this line of business in June 2022.
- *Engineering*: provides protection for all types of construction risks and risks associated with erection, testing and commissioning of machinery and plants during the construction stage. This line of business also includes cover for losses arising from operational failures of machinery, plant and equipment, and electronic equipment as well as business interruption. The Company exited this line of business in 2020.

Gross premiums written by broker, shown individually where premiums by broker were 10% or more of the total in any of the last three years, were as follows:

Years ended December 31,	2022		2021		2020	
Marsh & McLennan Companies Inc.	\$ 739,380	28 %	\$ 858,049	30 %	\$ 818,821	29 %
Aon plc	659,811	25 %	716,585	25 %	694,712	25 %
Arthur J. Gallagher & Co	379,822	14 %	164,678	6 %	188,909	7 %
Willis Tower Watson PLC	—	— %	367,973	13 %	435,498	16 %
Other brokers	231,200	9 %	350,058	13 %	393,459	13 %
Direct	444,930	17 %	187,583	7 %	105,777	4 %
Managing general agencies and underwriters	173,871	7 %	177,826	6 %	171,363	6 %
Total	\$ 2,629,014	100 %	\$ 2,822,752	100 %	\$ 2,808,539	100 %

- (1) Effective December 1, 2021, Arthur J. Gallagher & Co. completed the acquisition of substantially all of the treaty reinsurance brokerage operations from Willis Towers Watson plc. and the combined businesses commenced trading as Gallagher Re. The above table includes gross premiums written by Willis Towers Watson plc. for the eleven-month period ended November 30, 2021.

No cedant accounted for more than 10% of the gross premiums written in the reinsurance segment.

Competitive Environment

In our reinsurance segment, competition tends to be focused on availability, service, financial strength and price. We compete with major North American and non-North American reinsurers and reinsurance departments of numerous multi-line insurance organizations. In addition to traditional market participants, we also compete with new market entrants supported by alternative capital sources offering risk transfer solutions on a collateralized or other non-traditional basis. Our clients may also acquire reinsurance protection through capital market products such as catastrophe bonds and insurance loss warranties. We believe that we achieve a competitive advantage through our diversified global product offerings, responsiveness to customer needs and ability to provide sophisticated and innovative products. We offer excellent claims management, strong financial strength ratings and an ability to leverage our balance sheet and relationships with strategic capital partners to provide strong capacity.

Cash and Investments

We seek to balance the investment portfolio's objectives of increasing book value with the generation of relatively stable investment income, while providing sufficient liquidity to meet our claims and other obligations. Liquidity needs arising from potential claims are of primary importance and are considered in asset class participation and the asset allocation process. A significant portion of our investment portfolio is dedicated to investment grade fixed maturities that will generate cash flows that match expected claim payouts.

To diversify risk and optimize the growth in book value, we may invest in other asset classes such as equity securities, high yield securities and alternative investments (e.g., private equity funds), which provide higher potential total rates of return. These individual investment classes involve varying degrees of risk, including the potential for more volatile returns and reduced liquidity. However, as part of a balanced portfolio, they also provide diversification from interest rate and credit risk.

With regard to our investment portfolio, we primarily utilize third-party investment managers for security selection and trade execution functions, subject to guidelines and objectives for each asset class. This enables us to actively manage our investment portfolio with access to top performers specializing in various products and markets. We select managers based on various criteria including investment style, performance history and corporate governance. In addition, we monitor approved investment asset classes for each subsidiary through analysis of our operating environment, including expected volatility of cash flows, overall capital position, regulatory and rating agency considerations. The Finance Committee of our Board of Directors approves overall group asset allocation targets and investment policy to ensure that they are consistent with our overall goals, strategies and objectives. We also have an Investment and Finance Committee, comprised of members of our senior management team, which oversees the implementation of our investment strategy.

Refer to Item 7 '*Management's Discussion and Analysis of Financial Condition and Results of Operations – Cash and Investments*' and Item 8, Note 5 to the Consolidated Financial Statements '*Investments*' for additional information regarding our investment portfolio.

Refer to '*Risk and Capital Management*' for additional information regarding the management of investment risk.

REGULATION

General

Our insurance and reinsurance entities are regulated in most countries, although the degree and type of regulation varies significantly from one jurisdiction to another. We may become subject to regulation in new jurisdictions or to additional regulations in existing jurisdictions. To the extent we are aware of impending changes in regulation, our project teams prepare us to comply with such anticipated changes on a timely basis. The following describes the current material regulations under which the Company operates.

Bermuda

Our Bermuda insurance operating subsidiary, AXIS Specialty Bermuda, is a Class 4 general business insurer subject to the Insurance Act 1978 of Bermuda and related regulations, as amended (the "Insurance Act"). The Insurance Act provides that no person may carry on any insurance or reinsurance business in or from within Bermuda unless registered as an insurer by the Bermuda Monetary Authority (the "BMA") under the Insurance Act. The Insurance Act imposes upon Bermuda insurance companies' solvency and liquidity standards, and auditing and reporting requirements, and grants the BMA powers to supervise, investigate, require information and demand the production of documents and intervene in the affairs of insurance companies.

Significant requirements pertaining to Class 4 insurers include the appointment of an independent auditor, the appointment of a loss reserve specialist, the appointment of a principal representative in Bermuda, the filing of annual Statutory Financial Returns together with annual GAAP financial statements and an annual Capital and Solvency Return, compliance with minimum and enhanced capital requirements, together with certain restrictions on reductions of capital and the payment of dividends and distributions as well as group solvency and supervision rules, if applicable, and compliance with the Insurance Code of Conduct.

Effective January 1, 2016, the BMA was granted full "equivalence" under Solvency II (refer to 'Ireland' below) for Bermuda's commercial insurance sector, including Class 4 insurers.

The BMA acts as group supervisor of AXIS Capital and has designated AXIS Specialty Bermuda as the 'designated insurer' of the Group. In accordance with the group supervision and insurance group solvency rules, AXIS Capital is required to prepare and submit an annual group Statutory Financial Return, annual audited group GAAP financial statements, an annual group Capital and Solvency Return and quarterly group unaudited GAAP financial statements, and to appoint a group actuary and a group auditor. AXIS Capital also files an annual capital and solvency return and must ensure compliance with minimum and enhanced capital requirements.

On July 30, 2018, the Insurance Amendment (No. 2) Act 2018 amended the Insurance Act to provide for the prior payment of policyholders' liabilities ahead of general unsecured creditors in the event of the liquidation or winding up of an insurer. Effective January 1, 2019, this amendment applies to general business insurers and provides that, subject to certain statutorily preferred debts, the insurance debts of an insurer must be paid in priority to all other unsecured debts of the insurer. Insurance debt is defined as a debt to which an insurer is or may become liable pursuant to an insurance contract, excluding debts owed to an insurer under an insurance contract where the insurer is the person insured.

In December 2018, Bermuda enacted the Economic Substance Act 2018 (as amended) of Bermuda and its related regulations (together, the "ES Act"). The ES Act came into force on December 31, 2018, and requires resident registered entities that carry on as a business any one or more of the "relevant activities" referred to in the ES Act to comply with economic substance requirements. The list of "relevant activities" includes carrying on as a business any one or more of the following activities: banking, insurance, fund management, financing and leasing, headquarters, shipping, distribution and service center, intellectual property, and holding entity. Under the ES Act, if a company is engaged in one or more "relevant activities" as a business, it is required to maintain a substantial economic presence in Bermuda and to comply with the economic substance requirements set forth in the ES Act.

In October 2020, the BMA established the Insurance Sector Operational Cyber Risk Management Code of Conduct. All Bermuda insurers, insurance managers and insurance intermediaries registered under the Insurance Act are required to comply with the BMA's Insurance Sector Operational Cyber Risk Management Code of Conduct, which established duties, requirements and standards in relation to operational cyber risk management.

In August 2022, the BMA published a revised version of the Insurance Code of Conduct ("Insurance Code"). Overall, the amendments aim to improve and enhance the Insurance Code and its application, while at the same time incorporating various administrative changes. The most substantive changes to the Insurance Code relate to:

- (i) Corporate Governance, including a new requirement that the board of directors of an insurer that is a subsidiary of a Bermuda registered insurance group, such as AXIS Specialty Bermuda, must have an appropriate number of non-executive directors;
- (ii) Risk Management Framework, including the addition of a definition of "Environment, Social and Governance Risk"; and
- (iii) Outsourcing, including enhanced requirements for material outsourcing arrangements.

The Insurance Code, as amended, came into force on September 1, 2022. Bermuda insurers and insurance groups are required to be compliant with sections 1 through 7 of the Insurance Code by September 1, 2023 and applicable parts of section 8 of the Insurance Code by March 1, 2023.

AXIS Reinsurance Managers is regulated by the BMA as an insurance manager. As an insurance manager, AXIS Reinsurance Managers is required to register with the BMA pursuant to the Insurance Act. AXIS Reinsurance Managers is also required to comply with the Insurance Manager Code of Conduct.

AXIS Capital, AXIS Specialty Bermuda, AXIS Specialty Holdings Bermuda Limited, AXIS Specialty Investments Limited, AXIS ILS Ltd., AXIS Specialty Investments II Limited and AXIS Reinsurance Managers must comply with provisions of the Bermuda Companies Act 1981 of Bermuda, as amended (the "Companies Act"), regulating the payment of dividends and distributions. A Bermuda company may not declare or pay a dividend or make a distribution out of contributed surplus if there are reasonable grounds for believing that:

- (a) the company is, or would after the payment be, unable to pay its liabilities as they become due; or
- (b) the realizable value of the company's assets would thereby be less than its liabilities.

The Singapore branch of AXIS Specialty Bermuda, AXIS Specialty Limited (Singapore Branch), established in 2008, is regulated by the Monetary Authority of Singapore (the "MAS") pursuant to The Insurance Act of Singapore, which imposes significant regulations relating to capital adequacy, risk management, governance, audit and actuarial requirements. AXIS Specialty Limited (Singapore Branch) is registered by the Accounting and Corporate Regulatory Authority ("ACRA") as a foreign company in Singapore and is also regulated by ACRA pursuant to the Singapore Companies Act. Prior to establishing its Singapore branch, AXIS Specialty Bermuda had maintained a representative office in Singapore since 2004.

AXIS Specialty Bermuda has reinsurance permissions in China and the Netherlands. AXIS Specialty Limited (Singapore Branch) has separate reinsurance permissions in China.

AXIS Re SE may write reinsurance in Bermuda under Solvency II equivalence between Bermuda and the E.U.

AXIS Managing Agency Ltd. may write general insurance and reinsurance in Bermuda using Lloyd's of London ("Lloyd's") licenses (refer to '*U.K. and Lloyd's of London*' below).

United States

U.S. Insurance Holding Company Regulation of AXIS Capital's Insurance Subsidiaries

As members of an insurance holding company system, each of AXIS Insurance Co., AXIS Re U.S., AXIS Specialty U.S. and AXIS Surplus, (collectively the "U.S. Insurance Subsidiaries") are subject to the insurance holding company laws and regulations of the states in which they do business. These laws generally require each of the U.S. Insurance Subsidiaries to register with its domestic state insurance department and to furnish financial and other information which may materially affect the operations, management or financial condition within the holding company system. All transactions within a holding company system that involve an insurance company must be fair and equitable. Notice to the applicable insurance department is required prior to the consummation of transactions affecting the ownership or control of an insurer and of certain material transactions between an insurer and an entity in its holding company system, and certain transactions may not be consummated without the department's prior approval.

State Insurance Regulation

AXIS Re U.S. is licensed to transact insurance and reinsurance throughout the U.S. and in Puerto Rico. AXIS Re U.S. is also authorized to transact insurance and reinsurance throughout Canada through its Canadian branch and has reinsurance permissions in Argentina, Brazil, Colombia, Ecuador, Guam, Guatemala, Panama and Mexico. AXIS Insurance Co. is licensed to transact insurance and reinsurance throughout the U.S. AXIS Specialty U.S. is licensed to transact insurance and reinsurance throughout the U.S., except California, Iowa, Maine, New Mexico, New York and Wyoming. AXIS Surplus is eligible to write insurance on a surplus lines basis throughout the U.S., Puerto Rico and the U.S. Virgin Islands.

Our U.S. Insurance Subsidiaries are subject to regulation and supervision by their respective states of domicile and by other jurisdictions in which they do business. The regulations generally are derived from statutes that delegate regulatory and supervisory powers to an insurance official. The regulatory framework varies from state to state, but generally relates to approval of policy forms and rates, the standards of solvency that must be met and maintained, including risk-based capital standards, material transactions between an insurer and its affiliates, the licensing of insurers, agents and brokers, restrictions on insurance policy terminations, the nature of and limitations on the amount of certain investments, limitations on the net amount of insurance of a single risk compared to the insurer's surplus, deposits of securities for the benefit of policyholders, methods of accounting, periodic examinations of the financial condition and market conduct of insurance companies, the form and content of reports of financial condition required to be filed, reserves for unearned premiums, losses, expenses and other obligations.

Our U.S. Insurance Subsidiaries are required to file detailed quarterly statutory financial statements with state insurance regulators in each of the states in which they conduct business. In addition, the U.S. Insurance Subsidiaries' operations and accounts are subject to financial condition and market conduct examination at regular intervals by state regulators.

Regulators and rating agencies use statutory surplus as a measure to assess our U.S. Insurance Subsidiaries' ability to support business operations and pay dividends. Our U.S. Insurance Subsidiaries are subject to various state statutory and regulatory restrictions that limit the amount of dividends that may be paid from earned surplus without prior approval from regulatory authorities. These restrictions differ by state, but generally are based on calculations using statutory surplus, statutory net income and investment income. In addition, many state regulators use the National Association of Insurance Commissioners promulgated risk-based capital requirements as a means of identifying insurance companies that may be under-capitalized.

Although generally the insurance industry is not directly regulated by the federal government, federal legislation and initiatives can affect the industry and our business. Certain sections of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 ("Dodd-Frank") pertain to the regulation and business of insurance. Specifically, the Federal Insurance Office ("FIO") has limited authority to collect information and report on the business of insurance to Congress. In addition, Dodd-Frank contains the Non-Admitted and Reinsurance Reform Act of 2010 ("NRRRA"). NRRRA attempts to coordinate the payment of surplus lines taxes, simplify the granting of alien insurers to become surplus lines authorized and coordinates the credit for certain reinsurance. The Company continues to monitor the implementation of Dodd-Frank.

AXIS Group Benefits LLC, a leading provider of voluntary, limited benefit, affordable health plans and other employee benefits coverage for hourly and part-time workers and their families, is an authorized insurance producer in all 50 American states except Hawaii. As a resident insurance producer in Arizona, AXIS Group Benefits LLC is subject to regulation and supervision by the Arizona Department of Insurance and is also subject to the regulation and supervision of the other states in which AXIS Group Benefits LLC transacts business.

AXIS Specialty Underwriters, Inc., was a Florida licensed reinsurance intermediary. Following the closure of our Florida office in 2021, AXIS Specialty Underwriters' coverholder agreement with Syndicate 1686 was terminated, effective December 31, 2021. All regulatory licenses in Florida for AXIS Specialty Underwriters, Inc. were terminated in 2022, however, the entity remained registered in Delaware and was renamed AXIS ILS, Inc. This entity is now utilized as a marketing services company for AXIS' insurance linked securities.

U.S. Authorizations of our Non-U.S. Insurance Subsidiaries

The insurance laws of each state of the U.S. regulate or prohibit the sale of insurance and reinsurance by insurers and reinsurers that are not admitted to do business within their jurisdictions or otherwise conduct business pursuant to exemptions. AXIS Specialty Europe is eligible to write surplus lines business throughout the U.S. and in Puerto Rico. AXIS Managing Agency Ltd. is eligible to use Lloyd's licenses to (i) write surplus lines business throughout the U.S. and in all U.S. territories, (ii) write insurance business, except life insurance business, in the states of Illinois, Kentucky and in the U.S. Virgin Islands and (iii) write non-life reinsurance business throughout the U.S. and in all U.S. territories, except for accident and health reinsurance in New York.

In addition to the regulatory requirements imposed by the jurisdictions in which they are licensed, reinsurers' business operations are affected by regulatory requirements in various states of the U.S. governing "credit for reinsurance" that are imposed on their ceding companies. In general, a ceding company obtaining reinsurance from a reinsurer that is licensed or approved by the jurisdiction or state in which the ceding company files statutory financial statements is permitted to reflect in its statutory financial statements a credit in an aggregate amount equal to the ceding company's liability for unearned premiums (which is that portion of premiums written which applies to the unexpired portion of the policy period), loss reserves and loss expense reserves ceded to the reinsurer. The great majority of states, however, permit a credit to statutory surplus resulting from reinsurance obtained from a non-licensed or non-accredited reinsurer to be recognized to the extent that the reinsurer provides a letter of credit, trust fund or other acceptable security arrangement. A few states do not allow credit for reinsurance ceded to non-licensed reinsurers except in certain limited circumstances, and others impose additional requirements that make it difficult to become accredited. In connection with the establishment of a Multi-Beneficiary Reinsurance Trust, AXIS Specialty Bermuda obtained accredited or trustee reinsurer status in all U.S. jurisdictions except for New York.

During 2022, AXIS Specialty Bermuda obtained reciprocal jurisdiction reinsurer status with Missouri as its lead state. Reinsurers licensed in reciprocal jurisdictions (which include European Union member states, Bermuda, Japan and Switzerland) are not required to post reinsurance collateral if approved as reciprocal jurisdiction reinsurers. With its approval from Missouri, AXIS Specialty Bermuda has started to submit passporting applications in additional states. "Passporting" refers to the process under which a state has the discretion to defer to the determination by another state that a reinsurer is a reciprocal jurisdiction reinsurer, thereby excusing the approved reinsurer from collateral requirements in such state.

Ireland

Our Ireland domiciled insurer and reinsurer are subject to the Solvency II Directive (Directive 2009/138/EC), as amended. Solvency II represents a consolidation and modernization of existing European Commission Solvency I insurance and reinsurance regulation and supervision and includes a harmonized risk-based solvency and reporting regime for the insurance/reinsurance sector. Solvency II covers three main areas: (i) the valuation of assets and liabilities and related solvency capital requirements; (ii) governance requirements including key functions of compliance, internal audit, actuarial and risk management; and (iii) legal entity and European Union ("E.U.") group reporting and disclosure requirements including public disclosures. The capital requirement must be computed using the Solvency II standard formula unless the Central Bank of Ireland ("CBI") has previously authorized a company to use its own internal model. Certain of our European legal entities are subject to Solvency II.

AXIS Specialty Europe

AXIS Specialty Europe is a European public limited liability company incorporated as a non-life insurer under the laws of Ireland. It is a Societas Europaea (SE), or European society company, and has been registered in accordance with E.U. law. As an SE company, AXIS Specialty Europe can more easily merge with companies in European member states and also transfer its domicile to other Member States of the E.U. AXIS Specialty Europe is authorized and regulated by the CBI pursuant to the Insurance Acts 1909 to 2000, as amended, repealed or replaced, the Central Bank Acts 1942 – 2014, as amended, repealed or replaced, and E.U. regulation relating to general insurance and statutory instruments made thereunder. AXIS Specialty Europe is authorized to conduct business in 16 non-life insurance classes throughout the E.U. and the European Economic Area ("EEA"), which includes each of the Member States of the E.U. with the addition of Iceland, Liechtenstein and Norway. AXIS Specialty Europe may also write reinsurance business within the classes of insurance business for which it is authorized.

AXIS Specialty Europe is subject to Solvency II. In accordance with Solvency II, AXIS Specialty Europe is permitted to provide insurance services to clients located in any EEA Member State ("Freedom of Services"), subject to compliance with any "general good requirements" as may be established by the applicable EEA Member State regulator. AXIS Specialty Europe has notified the CBI of its intention to provide insurance services on a Freedom of Services basis in all EEA countries.

Solvency II also permits AXIS Specialty Europe to carry on insurance business in any EEA Member State under the principle of "Freedom of Establishment" subject to the prior approval of the CBI. AXIS Specialty Europe operates under Freedom of Establishment in Belgium through its branch established in this jurisdiction. AXIS Specialty Europe also has a U.K. branch that transacts general insurance business in the U.K. and trades as AXIS Specialty London. The U.K. withdrew from the E.U. on January 31, 2020 and is now considered a third-country. In order to maintain business continuity, AXIS Specialty Europe submitted an application to the Prudential Regulatory Authority (the "PRA") in 2018 for authorization of a third-country

branch. This application was approved on October 28, 2022, and the UK Branch of AXIS Specialty Europe is now fully regulated by both the PRA and the Financial Conduct Authority ("FCA").

Effective January 1, 2019, Compagnie Belge d'Assurances Aviation NV/SA merged into AXIS Specialty Europe by way of merger by absorption and thereby dissolved without going into liquidation (the "Aviabel Merger"). In connection with the Aviabel Merger, AXIS Specialty Europe established two new branches in Belgium and the Netherlands (see '*Belgium*' and the '*Netherlands*' below).

AXIS Specialty Europe has local regulatory permission to carry on insurance business in Jersey and has reinsurance permissions in India, China, Argentina, Mexico, Panama, Paraguay, Honduras, Ecuador, Colombia and Guatemala.

AXIS Re SE

AXIS Re SE is a European public limited liability company incorporated as a reinsurer under the laws of Ireland. AXIS Re SE is also a Societas Europaea (SE), or European society company, registered in accordance with E.U. law. AXIS Re SE is authorized by the CBI as a composite reinsurer (non-life and life) in accordance with the Insurance Acts 1909 to 2000, as amended, repealed or replaced, the Central Bank Acts 1942 – 2014, as amended, repealed or replaced, and E.U. regulation applicable to reinsurance and statutory instruments made thereunder. AXIS Re SE is authorized to transact reinsurance throughout the E.U. and the EEA and is subject to Solvency II.

AXIS Re SE conducts business through its branch in Zurich, Switzerland, trading as AXIS Re Europe (see '*Switzerland*' below).

AXIS Re SE Escritório de Representação No Brasil Ltda. was established in Brazil as a subsidiary of AXIS Re SE to facilitate the Brazilian Superintendence of Private Insurance ("SUSEP") regulatory requirements for approval of a representative office of AXIS Re SE and for the registration of AXIS Re SE with SUSEP as an Admitted Reinsurer.

AXIS Re SE has reinsurance permissions in Argentina, Bolivia, Brazil, China, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, India, Mexico, Nicaragua, Panama, Paraguay, Peru and Venezuela.

AXIS Specialty Holdings Ireland Limited

AXIS Specialty Holdings Ireland Limited is the limited liability holding company for AXIS Specialty Europe, AXIS Re SE, and Contessa Limited.

AXIS Specialty Global Holdings Limited

AXIS Specialty Global Holdings Limited is the limited liability holding company for AXIS Capital's U.S. Insurance subsidiaries.

Other AXIS Entities

AXIS Specialty Bermuda may write reinsurance under Solvency II equivalence granted to Bermuda by the E.U.

AXIS Managing Agency Ltd. is eligible to write insurance (except permanent health) and reinsurance business in Ireland through Lloyd's Europe (see '*Regulatory Impact Due to Brexit*' below).

U.K. and Lloyd's of London

In the U.K., under the Financial Services and Markets Act 2000 ("FSMA"), no person may carry on a regulated activity unless authorized or exempt. Effecting or intermediating contracts of insurance or reinsurance are regulated activities requiring authorization. Effecting contracts of insurance requires authorization by the PRA and is regulated by the FCA. Intermediating contracts of insurance requires authorization by the FCA.

Under the Financial Services Act 2012, the FCA is a conduct regulator for all U.K. firms carrying on regulated activity in the U.K. while the PRA is the prudential regulator of U.K. banks, building societies, credit unions, insurers and major investment firms. As a prudential regulator, the PRA's general objective is to promote the safety and soundness of the firms it regulates. The PRA rules require financial firms to hold sufficient capital and have adequate risk controls in place.

The FCA's statutory strategic objective is to ensure that relevant markets function well and have operational objectives to protect consumers, protect financial markets and promote competition. It makes rules covering how the firm must be

managed and requirements relating to the firm's systems and controls, how business must be conducted and the firm's arrangements to manage financial crime risk. The PRA and the FCA require regular and ad hoc reporting and monitor compliance with their respective rule books through a variety of means including the collection of data, industry reviews and site visits. The directors and senior managers of AXIS Managing Agency Ltd. must be "approved persons" under FSMA, making them directly and personally accountable for ensuring compliance with the requirements of the PRA and the FCA.

AXIS Managing Agency Ltd.

AXIS Managing Agency Ltd. is authorized and regulated by the PRA and regulated by the FCA to conduct insurance and reinsurance business and is a Lloyd's managing agent authorized by Lloyd's to manage our syndicate, Syndicate 1686.

To consolidate our Lloyd's business under Syndicate 1686, Novae Syndicate 2007 ("Syndicate 2007") ceased accepting new business and was placed into run-off on January 1, 2019. The final underwriting year of Syndicate 2007, and of SPA 6129, a third-party Lloyd's special purpose arrangement, closed by way of reinsurance to close arrangements that took effect on January 1, 2021.

Lloyd's is a society of corporate and individual members that underwrite insurance and reinsurance as members of syndicates. A syndicate is made up of one or more members that form a group to accept insurance and reinsurance risks. Each syndicate is managed by a managing agent. Managing agents write insurance business on behalf of the members of the syndicate, which members receive profits or bear losses in proportion to their respective shares in the syndicate for each underwriting year of account.

Lloyd's is subject to U.K. law and is authorized under the FSMA. The Lloyd's Act 1982 defines the governance structure and rules under which the society operates. Under the Lloyd's Act 1982, the Council of Lloyd's is responsible for the management and supervision of the Lloyd's market and supports the Lloyd's market. Lloyd's manages and protects the Lloyd's network of international licenses. Lloyd's agrees to syndicates' business plans and evaluates performance against those plans. Syndicates are required to underwrite only in accordance with their agreed business plans. If they fail to do so, Lloyd's can take a range of actions including, as a last resort, prohibiting a syndicate from underwriting. Lloyd's also monitors syndicates' compliance with Lloyd's minimum standards and is responsible for setting both member and central capital levels.

Lloyd's has a global network of licenses and authorizations, and underwriters at Lloyd's may write business in and from countries where Lloyd's has authorized status or exemptions available to non-admitted insurers or reinsurers. Lloyd's licenses can only be used if the Syndicate Business Forecast, agreed annually with Lloyd's, names those countries.

AXIS Managing Agency Ltd. operated an underwriting division at Lloyd's Insurance Company (China) Limited, a wholly-owned subsidiary of the Corporation of Lloyd's which allowed it to underwrite reinsurance in China. Syndicate 1686 ceased underwriting business on the Lloyd's China platform effective December 31, 2021. This business was placed in run-off effective January 1, 2022.

AXIS Corporate Capital UK Limited

AXIS Corporate Capital UK Limited is a corporate member of Syndicate 1686, providing 70% capital support. Syndicate 1686 is managed by AXIS Managing Agency Ltd.

AXIS Corporate Capital UK II Limited (formerly Novae Corporate Underwriting Limited)

AXIS Corporate Capital UK II Limited is a corporate member of Syndicate 1686, providing 30% capital support.

AXIS Underwriting Limited

AXIS Underwriting Limited, formerly known as Novae Underwriting Limited, is authorized and regulated by the FCA as an insurance intermediary and underwrites insurance on behalf of AXIS Specialty Europe and at Lloyd's on behalf of Syndicate 1686.

Contessa Limited

Effective December 2019, Contessa Limited ceased writing insurance on behalf of AXIS Specialty Europe. AXIS Specialty Europe now manages this book of business on a run-off basis.

In January 2021, Contessa Limited surrendered its license as an insurance intermediary with the FCA and is currently in liquidation.

AXIS Specialty UK Holdings Limited

AXIS Specialty UK Holdings Limited is a limited liability holding company for AXIS Managing Agency Ltd., AXIS Corporate Capital UK Limited and Novae Group Limited, and is incorporated under the laws of England and Wales.

Regulatory Impact Due to Brexit

On June 23, 2016, the U.K. voted to exit the E.U. ("Brexit") and on January 31, 2020, the U.K. completed its withdrawal from the E.U. Although an agreement was reached between the E.U. and the U.K., this agreement does not cover financial services. The following addresses the current impact to our insurers and reinsurers as a result of the U.K.'s withdrawal from the E.U.

Insurance

AXIS Specialty Europe established its branch in the U.K. in 2003 pursuant to the right to Freedom of Establishment under E.U. law. As it was anticipated that AXIS Specialty Europe would lose its authorization to conduct business in the U.K. as a result of the U.K.'s exit from the E.U., an application for authorization of a third-country branch was submitted to the PRA in 2018. This application was approved on October 28, 2022, and the UK Branch of AXIS Specialty Europe is now fully regulated by the PRA and FCA.

In preparation for Brexit, Lloyd's established Lloyd's Insurance Company S.A in Brussels ("Lloyd's Europe") to retain access to the EEA markets and transferred all EEA risks to Lloyd's Europe. Lloyd's Europe has been approved by the National Bank of Belgium ("NBB") and the Belgian conduct regulator, the Financial Services and Markets Authority ("Belgian FSMA") with authorization to write non-life insurance risks throughout the EEA. Lloyd's Europe has a third country branch established in the UK, regulated by the PRA and FCA. Effective with Brexit, all EEA risks are written by Lloyd's Europe. AXIS Managing Agency Ltd. has retained its access to the EEA markets through Lloyd's Europe.

In January 2021, Lloyd's Europe updated Lloyd's managing agents on its ongoing discussions with Lloyd's, NBB and the Belgian FSMA regarding Lloyd's Europe's operating model and the activities performed on behalf of Lloyd's Europe by Lloyd's managing agents. EEA business is now written through Lloyd's Europe's UK Branch by AXIS underwriters seconded to Lloyd's Europe. This model is to be reviewed by the NBB, and we continue to work with Lloyd's Europe on this operating model.

Reinsurance

AXIS Managing Agency Ltd. remains able to conduct non-life facultative, proportional and excess of loss reinsurance throughout the EEA via Lloyd's Europe. The E.U. has yet to make equivalence decisions for the U.K. under Solvency II. As a result, UK regulated firms' access to E.U. markets generally depends on the rules each Member State applies to third country regulated firms.

AXIS Re SE currently transacts reinsurance business in the EEA pursuant to European law. In November 2020, the U.K. granted equivalence under Solvency II to EEA supervised reinsurers, including AXIS Re SE, allowing such reinsurers to continue operations without interruption.

Switzerland

AXIS Re SE's branch in Zurich, Switzerland trades as AXIS Re Europe and is registered in Zurich as AXIS Re SE, Dublin (Zurich Branch). The CBI remains responsible for the prudential supervision of the branch. The Swiss Financial Market Supervisory Authority does not impose additional regulation upon a Swiss branch of an EEA reinsurer.

AXIS Managing Agency Ltd. is eligible to use Lloyd's licenses to write all classes of insurance business, except life, sickness and legal expenses, and is authorized to write all classes of reinsurance business in Switzerland.

Singapore

AXIS Specialty Bermuda conducts insurance and reinsurance business from its branch in Singapore, AXIS Specialty Limited (Singapore Branch), subject to the supervision of the BMA and the MAS which imposes significant regulations relating to capital adequacy, risk management, governance and audit and actuarial requirements. AXIS Specialty Limited (Singapore Branch) is registered by ACRA as a foreign company in Singapore and regulated by ACRA pursuant to the Singapore Companies Act.

AXIS Managing Agency Ltd. is eligible to use Lloyd's licenses to write insurance from Singapore with the exception of certain compulsory classes and life business. Singapore business may also be written from outside Singapore in certain circumstances where it is placed with a Singapore intermediary licensed by the MAS to place business at Lloyd's or by dealing directly with the insured.

Canada

AXIS Re U.S. conducts insurance and reinsurance business from its branch in Canada, AXIS Reinsurance Company (Canadian Branch), subject to the supervision of the New York State Department of Financial Services and the Office of the Superintendent of Financial Institutions Canada ("OSFI"), the federal regulatory authority that supervises federal Canadian and non-Canadian insurance companies operating in Canada pursuant to the Insurance Companies Act (Canada). The branch is authorized by OSFI to transact insurance and reinsurance. In addition, the branch is subject to the laws and regulations of each of the provinces and territories in which it is licensed.

AXIS Managing Agency Ltd. is eligible to use Lloyd's licenses subject to the laws and regulations of each of the provinces and territories in which it is licensed and to write insurance in or from Canada, with the following exceptions: hail insurance in respect of crop in the province of Quebec; home warranty insurance in the province of British Columbia; life insurance; credit protection insurance; title insurance; surety; and mortgage default insurance. Syndicate 1686, through Lloyd's, is authorized to write reinsurance in or from Canada subject to certain restrictions relating to life reinsurance.

Belgium

AXIS Specialty Europe conducts insurance from its Belgium branch, AXIS Specialty Europe SE (Belgium Branch), which is subject to CBI prudential supervision and limited regulation by the NBB.

AXIS Specialty Europe also has permission to write insurance and reinsurance on a Freedom of Services basis in Belgium.

AXIS Re SE has permission to write reinsurance on a Freedom of Services basis in Belgium. AXIS Managing Agency Ltd. is eligible to write insurance (except permanent health) and reinsurance business in Belgium through Lloyd's Europe (see '*Regulatory Impact Due to Brexit*' above).

Netherlands

AXIS Specialty Europe (Netherlands Branch) was established as part of the Aviabel merger and commenced trading on January 1, 2019. AXIS Specialty Europe (Netherlands Branch) closed effective December 31, 2021 and has been deregistered from the local commercial register.

AXIS Specialty Europe has permission to write insurance and reinsurance on a Freedom of Services basis in the Netherlands.

AXIS Re SE has permission to write reinsurance on a Freedom of Services basis in the Netherlands.

AXIS Managing Agency Ltd. is eligible to write insurance (except permanent health) and reinsurance business in the Netherlands through Lloyd's Europe (see '*Regulatory Impact Due to Brexit*' above).

Dubai

AXIS Reinsurance (DIFC) Limited was granted a prudential Category 4 license by the Dubai Financial Services Authority in December 2017 and operated as an intermediary under binding authority granted by the Board of Directors of AXIS Re SE to underwrite accident and health reinsurance. In December 2020, AXIS Reinsurance (DIFC) Limited surrendered its license and was liquidated effective March 8, 2021.

AXIS Managing Agency Ltd. is eligible to use Lloyd's licenses to write reinsurance in or from Dubai with certain exceptions.

Non-Admitted Insurance and Reinsurance

The Company also insures and reinsures risks in many countries, including the above countries, pursuant to regulatory permissions and exemptions available to non-admitted insurers and reinsurers.

AXIS Managing Agency Ltd. is eligible to use Lloyd's licenses to write insurance and reinsurance business where Lloyd's has authorized status or pursuant to regulatory exemptions available to non-admitted insurers and reinsurers.

HUMAN CAPITAL MANAGEMENT

AXIS Capital's mission is not only to deliver strong financial results, but also to help our clients, brokers and partners navigate the challenges of a volatile world. We believe our employees distinguish us from our competitors and are critical to our success as an insurance and reinsurance company that leads with purpose. Our workforce's strength is grounded in our One AXIS culture, which celebrates collaboration, diversity and integrity, as well as relentless execution and continuous learning, adapting and improving. We recognize that our strength lies in our people, and therefore, one of our core strategies is to invest in and support our employees, including in the following areas of focus:

Health, Safety and Wellness

We are committed to the health, safety and wellness of our workforce and offer our employees a variety of tools to support their physical, emotional and financial well-being. Examples include access to mental health resources, back-up child and elder care and on-demand fertility, maternity, postpartum and return-to-work assistance.

During the COVID-19 pandemic, our successful transition to remote work led us to adopt our current Flex for Your Day policy. Flex for Your Day is a hybrid work model that is designed to provide our employees with flexible working schedules that work best for them and their teams. We strive to be an employer of choice, and we expect this approach will help us recruit and retain talent.

Diversity, Equity and Inclusion

We see diversity, equity and inclusion as a strategic imperative that is core to our business and our culture. We aim to create a culture of inclusion that is grounded in the strength and diversity of our employees. By actively embracing a variety of perspectives, experiences and backgrounds and ensuring equal treatment for all, we strive to make AXIS a more rewarding place to work.

Our Approach – AXIS continues to scale up its diversity, equity and inclusion efforts through a formalized approach.

- *Internal Education and Awareness:* AXIS hosted a variety of diversity, equity and inclusion educational initiatives throughout the year, including promotional videos, social media posts, philanthropy campaigns and learning experiences to promote awareness, such as unconscious bias training and the launch of a mental health and wellness series. We also launched new internal sites highlighting our Ethnically Diverse Group of Employees (EDGE) and Women's Employee Resource Groups (ERGs) to build internal awareness and highlight our culture externally. Collectively, our five ERGs hosted over 20 events in 2022 offering education, networking and career development topics. Our annual DEI Forum on allyship featured an external insurance professional who moderated a discussion with representatives from our five ERGs and was attended by nearly half of our workforce.
- *Recruitment and Mobility:* AXIS continues to prioritize diverse interview slates, identify internal career mobility opportunities for existing staff, establish relationships with relevant universities and organizations, and participate in apprenticeship programs. We distributed a toolkit of career and leadership development options for managers to provide during recent talent reviews. This toolkit included resources specifically targeted at gender and ethnically diverse employees and targeted 50% diverse participation for the coaching program. We continued to encourage employee advocacy on diverse recruitment with our Talent Acquisition team's completion of a recruiter certification program focused on finding diverse pools of candidates and developing pipelines for underrepresented groups. We strive to include diverse talent in each of our candidate slates.

- ***Career Development:*** AXIS provides resources to help colleagues in their careers such as access to AXIS Academy, our learning and development hub, financing professional development opportunities, early careers programs and mentoring events. We also offer development programming for colleagues worldwide, such as leadership coaching programs and interview guides, materials and toolkits. In addition, the DEI Council sponsored its second annual Mentor Event with over 120 participants.
- ***Tools and Measurement:*** In an effort to foster transparency and improve our efforts, we invested in tools to establish, report and benchmark progress against our diversity, equity and inclusion goals. We continue to measure diverse hiring, turnover, promotions, succession planning and candidate slates monthly and we conduct regular gender pay equity audits. To continue holding ourselves accountable, we have set goals to increase gender diversity within our organization.
- ***Our Voice:*** AXIS continues to raise awareness and promote diversity, equity and inclusion issues, policies and initiatives to drive change across the insurance/reinsurance industry.
 - In 2022, AXIS signed the CEO Action for Diversity & Inclusion pledge, reflecting our commitment to fostering a culture of inclusion.
 - AXIS was proud to be a Gold sponsor of Bermuda Pride in an effort to promote inclusivity in Bermuda and at AXIS.
 - AXIS continues to support Dive In, the insurance/reinsurance industry's festival for diversity, equity and inclusion. In 2022, AXIS was a Gold Festival Partner for Dive In and had two colleagues participating as panelists at the Festival.
 - AXIS was also proud to support its colleagues as they continued leadership positions in a variety of industry organizations dedicated to advancing diversity, equity and inclusion, such as Insider Progress, the National African American Insurance Association, the Association of Professional Insurance Women and the WSIA Insurance Industry Diversity Foundation.
 - AXIS sponsored a team that placed 2nd out of 14 at the National African American Insurance Association Talent Competition with St. John's University.
 - AXIS was included in the Bloomberg Gender Equality Index (GEI) for the third year in a row.

Additionally, in our 2022 philanthropy, we supported our global partners, International Medical Corps and Doctors Without Borders, each of whose dedicated staff is on the ground in Ukraine working to provide emergency relief and medical care. In addition, AXIS Parents and Caregivers ERG created a matching drive for Ukraine relief which raised over \$30,000 from employee giving, AXIS' matching gift program and additional AXIS funding. In 2022, we also launched a Global Giving tool to make volunteering and giving easier for our AXIS community. Since its launch in May 2022, AXIS has matched \$83,000 of employee donations.

Talent Development

At AXIS, investing in our people is a top priority. We provide our employees with a variety of professional development resources to help them achieve their career goals. Some of our 2022 initiatives in furtherance of this goal are described below:

- ***Career Mobility Within the Organization:*** In 2022, 18% of our employees progressed in their AXIS careers either through a promotion, transfer or role expansion.
- ***AXIS Academy:*** We provide our employees access to AXIS Academy, which serves as our learning and development hub and reflects our commitment to continuing education. AXIS Academy includes over 9,400 online training courses.
- ***Professional Development:*** We offer financial assistance for external professional development opportunities and tuition reimbursement for certain part-time business-related degree programs. Additionally, as noted above, we distributed a toolkit of career and leadership development options to managers to provide during recent talent reviews.
- ***Early Careers Program:*** Our Early Careers Program aims to build a strong pipeline of early career talent through our internship and development programs.
- ***AXIS Careers:*** We created AXIS Careers to ensure our people feel empowered to "own their careers." AXIS Careers offers employees a comprehensive suite of professional development tools, resources and training modules to help

navigate career experiences and upskilling across our global organization. This includes leadership development, mentoring programs, and job secondments, shadows and swaps. In 2022, AXIS employees completed over 13,500 on-demand or instructor-led virtual learning and development courses through AXIS Academy and AXIS Careers.

Employee Engagement

We understand that employee engagement leads to a more satisfying and fulfilling workplace and motivates employees to do their best work. Our employee engagement initiatives include:

- AXIS Applause (our global recognition program to recognize the contributions of other AXIS members and drive strong employee performance);
- Community building events for AXIS employees and their families; and
- Employee-led charitable giving program which helps our employees give back to their communities.

In addition, to provide an open and frequent line of communication between senior management and our employees, we host all-employee calls led by our CEO on a monthly basis and we encourage our people managers to periodically check in with their employees.

Each year, we conduct an enterprise-wide engagement survey to better understand and improve the employee experience and identify opportunities to strengthen our culture. Managers and teams reflect on the survey results and develop enterprise-wide and local action plans to address areas identified for growth. In 2022, on average 80% of employees participated in our biannual employee surveys. We are proud to have maintained strong survey engagement and scores in a year of organizational change.

Compensation and Benefits

To attract and retain our industry's top talent, we offer employees a total rewards program that is designed to incentivize exceptional performance. Our compensation packages align with our pay-for-performance philosophy and are assessed on an annual basis through year-end performance reviews. Our packages are also regularly benchmarked against similarly sized insurance, reinsurance and financial services companies in each of our talent markets. Compensation components include market competitive salaries and short-term annual incentive programs (i.e., bonus payments) and, for senior level employees, long-term incentives such as equity grants. Our comprehensive benefits packages include health and welfare plans for employees and their families, flexible spending accounts, retirement savings plans with employer contributions and work-life benefits, including parental leave policies, flexible work arrangements for eligible employees and charitable matching programs. We offer a 401(k) plan to eligible employees with an annual employer match of up to 4% of eligible earnings and, in 2022, a discretionary employer contribution of an additional 6%.

At AXIS, we are committed to fair pay and delivering equal pay for equal work regardless of gender, race or other personal characteristics. In support of our commitment to equal pay practices, we conduct regular gender pay equity audits, as mentioned above, and take action to address any areas of concern. We have published the results of our global gender pay equity audits in connection with our participation in the Bloomberg Gender Equality Index.

Succession Planning

We have a robust talent and succession planning process. On an annual basis, management conducts a talent and succession plan for each member of our Executive Committee and their direct reports, focusing on high performing and high potential talent, diverse talent and the succession plan for each position. On an annual basis, our Board receives a comprehensive succession plan for each member of our Executive Committee.

Employees

At December 31, 2022, we had 2,064 employees. During 2022, the number of employees decreased by approximately 1% and our voluntary turnover rate was approximately 12.7%.

Below is a summary of our employees by region at December 31, 2022:

	Employees
North America (including Bermuda)	1,295
Europe, Middle East and Africa	747
Asia Pacific	22
Total employees	2,064

At December 31, 2022, our global employees had approximately the following gender demographics:

	Women	Men
Total employees ⁽¹⁾	45%	54%

(1) <1% of employees did not identify.

At December 31, 2022, our U.S. employees had approximately the following racial and ethnic demographics:

	All U.S. Employees⁽¹⁾
African American / Black	16%
Asian	11%
Hispanic / Latinx	5%
White	59%
Multiracial, Native American and Pacific Islander	2%
No Response / Not Disclosed	7%
Total employees	100%

(1) This information is presented for U.S. employees only. We continue to gather global demographic information in compliance with laws and regulations to demonstrate our racial and ethnic diversity.

TRADEMARKS

We use our trademarks, including among others, our "AXIS" trademarks for the global marketing of our products and services, and we believe that we sufficiently safeguard our trademark portfolio to protect our rights.

INFORMATION SECURITY

Information security is one of our highest priorities. Our information security ecosystem is designed to evolve with the changing security threat environment through ongoing assessment and measurement. We use commercial and proprietary security monitoring technologies and techniques to continuously monitor and respond to cyber threats. We also regularly engage independent third-party security auditors to test our systems and controls against relevant security standards and regulations.

Our employees and contractors are required to comply with our IT End User policy and certify their compliance annually. Information security awareness training is mandatory for all new hires and for existing employees and contractors on a regular basis.

Our Board of Directors, along with the Risk Committee and Audit Committee of the Board of Directors, oversee our information security program. In 2022, our Board of Directors and Risk and Audit Committees received periodic updates throughout the year on cybersecurity matters, and these updates are part of their standing agendas.

AVAILABLE INFORMATION

Our Internet website address is www.axiscapital.com. Information contained in our website is not part of this report.

We make available free of charge, through our internet website, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC.

RISK AND CAPITAL MANAGEMENT

Risk Management Framework – Overview

Mission and Objectives

The mission of Enterprise Risk Management ("ERM") at the Company is to promptly identify, assess, manage, monitor, and report risks that affect the achievement of our strategic, operational, and financial objectives. The key objectives of our risk management framework are to:

- Protect our capital base and earnings by monitoring our risks against our stated risk appetite and limits;
- Promote a sound risk management culture through disciplined and informed risk taking;
- Enhance value creation and contribute to an optimal risk-return profile by providing the basis for efficient capital deployment;
- Support our group-wide decision-making process by providing reliable and timely risk information; and
- Safeguard our reputation.

The risk management framework applies to all lines of business and corporate functions across our Company.

Risk Governance

At the heart of our risk management framework is a governance process with responsibilities for identifying, assessing, managing, monitoring, and reporting risks. We articulate roles and responsibilities for risk management throughout the organization, from the Board of Directors and the Chief Executive Officer to our business and corporate functions, thus embedding risk management throughout the Company (refer to '*Risk Governance and Risk Management Organization*' below).

Our risk policies are a formal set of documents that we use to specify our approach and risk mitigation/control philosophy for managing individual and aggregate risks. Our qualitative and quantitative risk reporting framework provides transparency and early warning indicators to senior management with regard to our overall risk profile, adherence to risk appetite and limits and management actions at the Group and operating entity level.

Various governance and control bodies coordinate to help ensure that objectives are being achieved, risks are identified, and appropriately managed, and internal controls are in place and operating effectively.

Internal Capital Model

An important aspect of our risk management framework is our internal capital model. Utilizing this modeling framework provides us with a holistic view of the capital we put at risk in any year by allowing us to understand the relative interaction among the known risks impacting us. This integrated approach recognizes that a single risk factor can affect different sub-portfolios and that different risk factors can have different mutual dependencies. We continuously review and update our model and its parameters as our risk landscape and external environment continue to evolve.

As well as being used to measure internal risk capital (refer to '*Capital Management*' below), our internal capital model is used as a tool in managing our business, specifically to help allocate capital to the businesses that will provide the best returns. We also use the internal model to support portfolio monitoring, reinsurance and retrocession (collectively referred to as "reinsurance") purchasing, and investment asset allocations.

Our internal capital model is an integral part of the business planning process which provides an assessment as to whether our prospective business and investment strategies are in line with our defined risk appetite and objectives at the Group and operating entity level. The model also provides a basis for optimizing our risk-return profile by providing consistent risk measurement across the Group. The model outputs are reviewed and supplemented with management's judgment and business experience and expertise. The internal capital model is subject to regular updates and validations.

Risk Diversification

As a global insurer and reinsurer with a wide product offering across different businesses, diversification is a key component of our business model and risk framework. Diversification enhances our ability to manage our risks by limiting the impact of a single event and contributing to relatively stable long-term results and our general risk profile. The degree to which the diversification effect can be realized depends not only on the correlation between risks but also the level of relative concentration of those risks. Therefore, our aim is to maintain a balanced risk profile without any disproportionately large risks. Our internal capital model considers the level of correlation and diversification between individual risks, and we measure concentration risk consistently across our business in terms of pre/post diversified internal risk capital requirements.

Risk Appetite and Limit Framework

Our integrated risk management framework considers material risks that arise from our operations. Material risks that might accumulate and have the potential to produce substantial losses are subject to our group-wide risk appetite and limit framework. Our risk appetite, as authorized by the Board of Directors, represents the amount of risk that we are willing to accept in pursuit of our strategic objectives, within the constraints imposed by our capital resources as well as the expectations of our stakeholders as to the type of risks we hold within our business. At an annual aggregated level, we also monitor and manage the potential financial loss from the accumulation of risk exposure in any one year.

Specific risk limits are defined and translated into a consistent framework across our identified risk categories and across our operating entities and are intended to limit the impact of individual risk types or accumulations of risk. Individual limits are established through an iterative process to ensure that the overall framework complies with our group-wide requirements on capital adequacy and risk accumulation.

We monitor risk through, for example, risk dashboards and limit consumption reports. These are intended to allow us to detect potential deviations from our internal risk limits at an early stage.

External Perspectives

Various external stakeholders, among them regulators, rating agencies, investors and accounting bodies, place emphasis on the importance of sound risk management in the insurance/reinsurance industry. We monitor developments in the external environment and evolve our risk management practices accordingly.

Risk Governance and Risk Management Organization

The key elements of our governance framework, as it relates specifically to risk management, are described below:

Board of Directors' Level

The Risk Committee of the Board of Directors ("Risk Committee") assists the directors in overseeing the integrity and effectiveness of our ERM framework and ensuring that our risk mitigation activities are consistent with that framework. The Risk Committee reviews, approves and monitors our overall risk strategy, risk appetite, and key risk limits, and receives regular reports from the Group Risk Management function ("Group Risk") to ensure any significant risk issues are being addressed by management. The Risk Committee further reviews, with management and Internal Audit, the Group's risk policies and satisfies itself that effective systems of risk management and controls are established and maintained.

Among its other responsibilities, the Risk Committee reviews and approves our annual Own Risk and Solvency Assessment ("ORSA") report. The Risk Committee also assesses the independence and objectivity of our Group Risk function, approves its terms of reference, and reviews its ongoing activities. In addition, the Risk Committee conducts a review and provides a

recommendation to the Board of Directors regarding the appointment and/or removal of the Chief Risk Officer. The Risk Committee meets with the Chief Risk Officer in separate executive sessions on a regular basis.

The Finance Committee of the Board of Directors oversees the Group's investment of funds and adequacy of financing facilities. This includes approval of the Group's strategic asset allocation plan.

The Audit Committee of the Board of Directors, which is supported by Internal Audit, is responsible for overseeing internal controls and compliance procedures, and also reviews with management and the Chair of the Risk Committee the Group's policies regarding risk assessment and risk management.

Group Executive Level

The Executive Committee formulates our business objectives and risk strategy within the overall risk appetite set by the Board of Directors. It allocates capital resources and sets limits across the Group, with the objective of balancing return and risk. While the Executive Committee is responsible overall for risk management, it has delegated some authority to the executive level Risk Management Committee ("RMC") consisting of the Chief Executive Officer, Chief Financial Officer, Chief Underwriting Officer, Chief Risk Officer, Group Chief Actuary and General Counsel & Corporate Secretary.

The RMC is responsible for overseeing the integrity and effectiveness of the Group's ERM framework and ensuring that the Group's risk mitigation activities are consistent with that framework, including a review of the annual business plan relative to our risk limits. In addition to the RMC, there is an established framework of separate yet complementary management committees and subcommittees, focusing on particular aspects of ERM including the following:

Management Committees

- The Business Council oversees underwriting strategy and performance, establishes return targets, and manages risk/exposure constraints across each line of business, consistent with the Company's strategic goals.
- The Investment & Finance Committee oversees the Group's investment activities, which includes monitoring market risks, the performance of our investment managers and the Group's asset-liability management, liquidity positions and investment policies and guidelines. The Investment & Finance Committee also prepares the Group's strategic asset allocation and presents it to the Finance Committee of the Board of Directors for approval.
- The Capital Management Committee oversees the integrity and effectiveness of the Company's capital management policy, including the capital management policies of the Company's legal entities and branches, and oversees the availability of capital within the Group.
- The Group Reserving Committee ensures appropriate oversight and validation of the Group loss reserves.

RMC Sub-Committees

- The Natural Catastrophe Committee oversees the Group's natural catastrophe risk management framework, including the validation of modeling and accumulation practices.
- The Non-Natural Catastrophe Committee oversees the Group's non-natural catastrophe risk management framework, including the validation of modeling and accumulation practices.
- The Reinsurance Security Committee ("RSC") sets out the financial security requirements of our reinsurance counterparties and approves counterparties, as needed.
- The Internal Model Committee oversees the Group's internal model framework, including the key model assumptions, methodology and validation framework.
- The Operational Risk Committee oversees the Group's operational risk framework for identifying, assessing, managing, monitoring, and reporting of operational risk and facilitates the embedding of effective operational risk management practices throughout the Group.
- The Emerging Risks Working Group oversees the processes for identifying, assessing, managing, monitoring, and reporting current and potential emerging risks.

- The Climate Change Working Group focuses specifically on climate-related risks and oversees the implementation of our climate risk management framework.

Group Risk Management Organization

As a general principle, management in each of the lines of business and corporate functions is responsible in the first instance for the risks and returns of its decisions. Management is the 'owner' of risk management processes and is responsible for managing our business within defined risk limits.

The Chief Risk Officer, who reports to the Chief Financial Officer and the Chair of the Risk Committee leads our independent Group Risk function, and is responsible for oversight and implementation of the Group's ERM framework, as well as providing guidance and support for risk management practices. Group Risk is responsible for developing methods and processes for identifying, assessing, managing, monitoring, and reporting risk. This forms the basis for informing the Risk Committee and RMC of the Group's risk profile. Group Risk develops our risk management framework and oversees the adherence to this framework at the Group and operating entity level. Our Chief Risk Officer regularly reports risk matters to the Chief Financial Officer, Executive Committee, RMC, and the Risk Committee.

Internal Audit, an independent, objective function, reports to the Audit Committee of the Board of Directors on the effectiveness of our risk management framework. This includes assurance that key business risks have been adequately identified and managed appropriately and that our system of internal control is operating effectively. Internal Audit also provides independent assurance around the validation of our internal capital model and coordinates risk-based audits, compliance reviews and other specific initiatives to evaluate and address risk within targeted areas of our business.

Our risk governance structure is further complemented by our legal team which seeks to mitigate legal and regulatory compliance risks with support from other teams. This includes ensuring that significant developments in law and regulation are observed and that we react appropriately to impending legislative and regulatory changes and applicable court rulings.

Risk Landscape

Our risk landscape comprises insurance, strategic, market, liquidity, credit, and operational risks that arise as a result of undertaking our business activities. We provide definitions of these risk categories as well as descriptions of management of these risks below. Across these risk categories, we identify and evaluate emerging threats and opportunities through a framework that includes the assessment of potential surprise factors that could affect exposures.

Our risk landscape is reviewed on a regular basis to ensure that it remains up-to-date based on the evolving risk profile of the Company. In addition, we undertake ongoing risk assessments across all enterprise risks, the output of which is captured in our risk register, which is reviewed and reported through our governance structure.

Insurance Risk

Insurance risk is the inherent uncertainty as to the occurrence, amount and timing of insurance and reinsurance liabilities transferred to us through the underwriting process.

Since our inception in 2001, we have expanded our international presence, with underwriting offices in Bermuda, the U.S., Europe, Singapore, and Canada. Our disciplined underwriting approach coupled with a peer review process has enabled us to manage this growth in a controlled and consistent manner.

A key component of the Group's underwriting risk governance is our peer review processes, which allow for a collaborative review of risk and pricing, and ensure that underwriting is within established guidelines and procedures. Underwriting guidelines are in place to provide a framework for consistent pricing and risk analysis and to ensure alignment to the Group's risk appetite. Limits are set on underwriting capacity and cascade authority to individuals based on their specific roles and expertise.

We also have significant audit coverage across our lines of business, including Management Initiated Audits ("MIAs"). MIAs are audits of underwriting and claims files performed by teams independent of those who originated the transactions, the purpose of which is to test the robustness of our underwriting and claims processes and to recognize any early indicators of future trends in our operational risk environment.

Reinsurance Purchasing

Another key component of our mitigation of insurance risk is the purchase of reinsurance to protect our short and long-tail lines of business on a treaty (covering a portfolio of risks) and facultative (single risk) basis.

For treaty reinsurance, we purchase proportional and non-proportional cover.

Under proportional reinsurance, we cede an agreed percentage of the premiums and the losses and loss expenses on the policies we underwrite. We primarily use proportional reinsurance on our liability, professional lines and cyber portfolios, as well as on select property portfolios, where we protect against higher loss frequency rather than specific events. We also purchase proportional reinsurance for our casualty and credit and surety portfolios, which includes cessions to our Strategic Capital Partners. In 2022, we also purchased proportional reinsurance on our assumed catastrophe and property reinsurance portfolio, which will not be required in the future due to our exit from these lines of business in June 2022.

We use non-proportional reinsurance, whereby losses up to a certain amount (i.e., our retention) are borne by us. By using non-proportional reinsurance, we can limit our liability with a retention, which reflects our willingness and ability to bear risk, and is therefore in line with our risk appetite. We primarily purchase the following forms of non-proportional reinsurance:

- Excess of loss per risk – the reinsurer indemnifies us for loss amounts of all individual policies effected, defined in the treaty terms and conditions. Per-risk treaties are an effective means of risk mitigation against large single losses (e.g., a large fire claim).
- Catastrophe excess of loss – provides aggregate loss cover for our insurance portfolio against the accumulation of losses incurred from a single event (e.g., windstorm).

We have a centralized risk funding department, which coordinates external treaty reinsurance purchasing (including retrocession) across the Group and a separate AXIS ILS (Insurance Linked Securities) team, which coordinates the sourcing and structuring of third-party capital to support AXIS underwriting. Risk funding and AXIS ILS is overseen by our Reinsurance Purchasing Group ("RPG"). The RPG, which includes, among others, our Chief Executive Officer, Chief Financial Officer, Chief Risk Officer, Chief Underwriting Officer and representatives from the business leadership team, approves each treaty placement and aims to ensure that appropriate diversification exists within our RSC approved counterparty panels.

Facultative reinsurance is case by case risk transfer. In certain circumstances, we use facultative reinsurance to complement treaty reinsurance by covering additional risks above and beyond what is already covered by treaties. Facultative reinsurance is monitored by the risk funding team.

Natural Peril Catastrophe Risk

Natural catastrophes such as hurricanes, windstorms, earthquakes, floods, tornados, hail and fire represent a challenge for risk management due to their accumulation potential and occurrence volatility. In managing natural catastrophe risk, our internal risk limit framework aims to limit the loss of capital due to a single event and the loss of capital that would occur from multiple (but perhaps smaller) events in any year. Within this framework, we have an established risk limit for single event, single zone probable maximum loss ("PML") within defined zones and at various return periods. For example, at the 1-in-250-year return period, we are not willing to expose more than 10% of common equity to a single event within a single zone.

The table below shows our net PML to a single natural peril catastrophe event within certain defined single zones which correspond to peak industry catastrophe exposures at January 1, 2023 and 2022:

Estimated Net Exposures (millions of U.S. dollars)		January 1, 2023			January 1, 2022		
		50 Year Return Period	100 Year Return Period	250 Year Return Period	50 Year Return Period	100 Year Return Period	250 Year Return Period
Territory	Peril						
<i>Single zone, single event</i>							
Southeast	U.S. Hurricane	\$ 74	\$ 96	\$ 125	\$ 131	\$ 186	\$ 262
Northeast	U.S. Hurricane	11	35	72	39	115	238
Mid-Atlantic	U.S. Hurricane	26	59	99	71	193	362
Gulf of Mexico	U.S. Hurricane	67	86	121	119	164	234
Europe	Windstorm	39	57	77	90	124	165
Japan	Windstorm	39	106	146	75	144	166
Japan	Earthquake	50	115	195	82	204	318
California	Earthquake	65	98	144	123	240	327

The return period refers to the frequency with which losses of a given amount or greater are expected to occur. A zone is a geographic area in which the insurance risks are considered to be correlated to a single catastrophic event. Estimated losses from a modeled event are grouped into a single zone, as shown above, based on where the majority of the total estimated industry loss is expected to occur. In managing zonal concentrations, we aim to ensure that the geography of single events is suitably captured, but distinct enough that they track specific types of events. For example, our definition of Southeast wind encompasses five states, including Florida, while our definition of Gulf Wind encompasses four states, including Texas.

Our PMLs take into account the fact that an event may trigger claims in a number of lines of business. For instance, our U.S. hurricane modeling includes the estimated pre-tax impact to our financial results arising from our catastrophe, property, engineering, energy, marine and aviation lines of business. Our PMLs include assumptions regarding the location, size and magnitude of an event, the frequency of events, the construction type and a property's susceptibility to damage and the cost of rebuilding the property. Loss estimates for non-U.S. zones will be subject to foreign exchange rates, although we may mitigate this currency variability from a book value perspective.

As indicated in the table above, our modeled single occurrence 1-in-100-year return period PML for a Southeast U.S. hurricane, net of reinsurance, is approximately \$96 million. According to our modeling, there is a one percent chance that on an annual basis losses incurred from a Southeast U.S. hurricane event could be in excess of \$96 million. Conversely, there is a 99% chance that on an annual basis the loss from a Southeast U.S. hurricane will fall below \$96 million.

PMLs are based on results of stochastic models that consider a wide range of possible events, their losses and probabilities. It is important to consider that an actual event does not necessarily resemble one of the stochastic events and the specific characteristics of an actual event can lead to substantial differences between actual and modeled loss.

We have developed our PML estimates by combining judgment and experience with the outputs from the catastrophe model, commercially available from Verisk Analytics, Inc., which we also use for pricing catastrophe risk. This model covers the major peril regions where we face potential exposure. Additionally, we have included our estimate of non-modeled perils and other factors, which we believe provides us with a more complete view of catastrophe risk.

Our PML estimates are based on assumptions that are inherently subject to significant uncertainties and contingencies. These uncertainties and contingencies can affect actual losses and could cause actual losses to differ materially from those expressed above. We aim to reduce the potential for model error in a number of ways, the most important of which is by ensuring that management's judgment supplements the model outputs. Models are continuously validated at the line of business and at a group level by our catastrophe model validation team. These validation procedures include sensitivity testing of models to understand their key variables and, where possible, back testing the model outputs to actual results.

Estimated net losses from peak zone catastrophes may change from period to period as a result of several factors, which include but are not limited to, updates to vendor catastrophe models, changes to internal modeling, underwriting portfolios, reinsurance purchasing strategy and foreign exchange rates.

Man-Made Catastrophe Risk

Consistent with our management of natural peril catastrophe exposures, we take a similarly focused and analytical approach to the management of man-made catastrophes. Man-made catastrophes, which include such risks as train collisions, airplane crashes or terrorism, and other intentionally destructive acts, including cyber-attacks, are harder to model in terms of assumptions regarding intensity and frequency. For these risks we couple the vendor models, where available with our bespoke modeling and underwriting judgment and expertise. This allows us to take advantage of business opportunities related to man-made catastrophe exposures particularly where we can measure and limit the risk sufficiently as well as obtain risk-adequate pricing.

As an example of our approach, our assessment of terrorism risk is based on a mixture of qualitative and quantitative data (e.g., for estimating property damage, business interruption, mortality and morbidity subsequent to an attack of a predefined magnitude), which we use to limit and manage our aggregate terrorism exposure. We use commercially available vendor modeling and bespoke modeling tools to measure accumulations around potential terrorism accumulation zones on a deterministic and probabilistic basis. We supplement the results of our modeling with underwriting judgment.

Reserving Risk

The estimation of reserves for losses and loss expenses ("loss reserves") is subject to uncertainty as the settlement of claims that arise before the balance sheet date is dependent on future events and developments. There are many factors that would cause loss reserves to increase or decrease, which include, but are not limited to emerging claims and coverage issues, changes in the legislative, regulatory, social and economic environment and unexpected changes in loss inflation. The estimation of loss reserves could also be adversely affected by the failure of our loss limitation strategy and/or the failure of models used to support key decisions.

We calculate loss reserves in accordance with actuarial best practice based on substantiated methodologies and assumptions. In addition, we have well established processes in place for determining loss reserves, which we ensure are consistently applied. Our loss reserving process demands data quality and reliability and requires a quantitative and qualitative review of overall reserves and individual large claims. Within a structured control framework, claims information is communicated on a regular basis throughout our organization, including to senior management, to provide an increased awareness of losses that have occurred throughout the insurance markets. The detailed and analytical reserving approach that follows is designed to absorb and understand the latest information on reported and unreported claims, to recognize the resultant exposure as quickly as possible, and to record appropriate loss reserves in our consolidated financial statements.

Reserving for long-tail lines of business represents a significant component of reserving risk. When loss trends prove to be higher than those underlying our reserving assumptions, the risk is greater because loss reserves recorded in our consolidated financial statements cover claims arising from several years of underwriting activity and these reserves are likely to be adversely affected by unfavorable loss trends. We manage and mitigate reserving risk on long-tail business in a variety of ways. First, the long-tail business we write is part of a well-balanced and diversified global portfolio of business. In 2022, long-tail net premiums written (namely liability and motor business) represented 22% of total net premiums written, and long-tail net loss reserves represented 35% of total net loss reserves. We also purchase reinsurance on liability business to manage our net positions. Second, we follow a disciplined underwriting process that utilizes available information, including industry trends.

Another significant component of reserving risk relates to the estimation of losses in the aftermath of a major catastrophe event. Refer to Item 7 *'Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Estimates – Reserves for Losses and Loss Expenses'* for further details. Refer also to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses – Reserving Methodology – Reserving for Catastrophic Events'* for further details.

Claims Handling Risk

In accepting risk, we are committing to the payment of claims and therefore these risks must be understood and controlled. We have claims teams embedded in our main lines of business. Our claim teams include a diverse group of experienced professionals, including claims adjusters and attorneys. We also use approved external service providers, such as independent adjusters and appraisers, surveyors, accountants, investigators, and specialist attorneys, as appropriate.

We maintain claims handling guidelines, which include details on claims reporting controls and claims reporting escalation procedures, for all our claims teams. Large claims matters are reviewed during weekly claims meetings. The minutes from

each meeting are circulated to our underwriters, senior management and others involved in the reserving process. To maintain communication between underwriting and claims teams, claims personnel regularly report at underwriting meetings and frequently attend client meetings.

We foster a strong culture of review among our claims teams. This includes MIAs, whereby senior claims handlers audit a sample of claim files. The process is designed to ensure consistency between the claims teams and to develop group-wide best practices.

When we receive notice of a claim, regardless of size, it is recorded in our claims and underwriting systems. In addition, we produce alerts regarding significant events and potential losses, regardless of whether we have exposure. These alerts allow a direct notification to be communicated to underwriters and senior management worldwide. Similarly, for natural peril catastrophes, we have developed a catastrophe database, along with catastrophe coding in certain systems, that allows for the gathering, analyzing, and reporting of loss information as it develops from early modeled results to fully adjusted and paid losses.

Strategic Risk

Strategic risks affect or are created by an organization's business strategy and strategic objectives. Our review of strategic risk evaluates not only internal and external challenges that might cause our chosen strategy to fail but also evaluates major risks that could affect our long-term performance and position.

We believe it is imperative that we consider the business risks associated with, and mitigated by, each strategy. We also view strategic risk not only as the negative impact of risk but also the sub-optimization of gain. Fundamentally, we believe that we are set up for success if we analyze both value protection and value creation.

Environmental, Social and Governance (ESG) and sustainability have become major topics that encompass a wide range of issues, including climate change and other environmental risks. In line with our strategy, we have put in place a number of measures in order to identify, assess and manage potential exposure to climate risks, for example physical, transition and liability risks.

At least on a quarterly basis, the Executive Committee meets and receives holistic information about execution against strategy and makes decisions to adjust and/or advance strategy. In addition, strategies employed throughout our business in support of the broader enterprise strategy are reviewed in the context of a broader governance structure by the Business Council and business leadership and are ultimately approved by the Board of Directors.

Market Risk

Market risk is the risk that our financial instruments may be negatively impacted by movements in financial market prices or rates, such as interest rates, credit spreads, equity securities' prices and foreign currency exchange rates. Fluctuations in market prices or rates primarily affect our investment portfolio.

Through asset-liability management, we aim to ensure that market risks influence the economic value of our investments and our loss reserves and other liabilities in the same way, thus mitigating the effect of market fluctuations. For example, we reflect important features of our liabilities, such as maturity patterns and currency structures, on the asset side of the balance sheet by acquiring investments with similar characteristics.

We supplement our asset-liability management with various internal policies and limits. As part of our strategic asset allocation process, different asset strategies are simulated and stressed in order to evaluate the 'optimal' portfolio, given return objectives and risk constraints. Our investments team manages asset classes to control aggregation of risk and provide a consistent approach to constructing portfolios and the selection process of external asset managers. We have limits on the concentration of investments by single issuers and certain asset classes, and we limit the level of illiquid investments (refer to '*Liquidity Risk*' below).

We stress test our investment portfolios using historical and hypothetical scenarios to analyze the impact of unusual market conditions and to ensure potential investment losses remain within our risk appetite. At an annual aggregated level, we manage the total risk exposure of our investment portfolio so that the 'total return' investment loss in any one year is unlikely to exceed a defined percentage of our common equity at a defined return period.

We mitigate foreign currency risk by seeking to match our estimated insurance and reinsurance liabilities payable in foreign currencies with assets, including cash and investments that are denominated in the same currencies. Where necessary, we use

derivative financial instruments for economic hedging purposes. For example, in certain circumstances, we use forward contracts to economically hedge portions of our un-matched foreign currency exposures.

Liquidity Risk

Liquidity risk is the risk that we may not have sufficient cash to meet our obligations when they are due or would have to incur excessive costs to do so.

As an insurer and reinsurer, our core business generates liquidity primarily through premiums, investment income and the maturity/sale of investments. Our exposure to liquidity risk stems mainly from the need to pay claims on potential extreme loss events and regulatory constraints that limit the flow of funds within the Group. To manage these risks, we have a range of liquidity policies and procedures in place which are described below:

- We maintain cash and cash equivalents and a high quality, liquid investment portfolio to meet expected outflows, as well as those that could result from a range of potential stress events. We place limits on the maximum percentage of cash and investments that may be in an illiquid form as well as on the minimum percentage of unrestricted cash and liquid investment grade fixed maturity securities.
- We maintain committed borrowing facilities, as well as access to diverse funding sources, to cover contingencies. Funding sources include liquid cash and invested assets, external debt issuances and lines of credit.

Credit Risk

Credit risk represents the risk of incurring financial loss due to the diminished creditworthiness (reduced financial strength and, ultimately, possibly default) of our third-party counterparties.

We distinguish between various forms of credit exposure including the risk of issuer default from instruments in which we invest, such as corporate bonds, counterparty exposure in a direct contractual relationship, such as reinsurance, the credit risk related to our premium receivables, including those from brokers and other intermediaries, and the risk we assume through our insurance contracts, such as our credit and political risk, and credit and surety lines of business.

Credit Risk Aggregation

Refer to Item 8, Note 8 to the Consolidated Financial Statements 'Commitment and Contingencies' – Concentration of Credit Risk – Credit Risk Aggregation

Credit Risk Relating to Cash and Investments

Refer to Item 8, Note 8 to the Consolidated Financial Statements 'Commitment and Contingencies' – Concentration of Credit Risk – Cash and Investments

Credit Risk Relating to Reinsurance Recoverable Assets

Refer to Item 8, Note 8 to the Consolidated Financial Statements 'Commitment and Contingencies' – Concentration of Credit Risk – Reinsurance Recoverable on Unpaid and Paid Losses and Loss Expenses

Credit Risk Relating to Premium Receivables

Refer to Item 8, Note 8 to the Consolidated Financial Statements 'Commitment and Contingencies' – Concentration of Credit Risk – Insurance and Reinsurance Premium Balances Receivable

Credit Risk Relating to our Underwriting Portfolio

In the insurance segment, we provide credit insurance primarily for lenders (financial institutions) and commodity traders seeking to mitigate the risk of non-payment from their borrowers and trading counterparties. This product complements our traditional political risk insurance business. For the credit insurance contracts, it is necessary for the buyer of the insurance, most often a bank or commodity trader, to hold an insured asset, most often an underlying loan, or sale and purchase contract in order to claim compensation under the insurance contract. The majority of the credit insurance provided is for single-name illiquid risks that can be individually analyzed and underwritten, primarily in the form of senior secured bank loans but also unsecured payment obligations in the case of shorter term trade credit. As part of the underwriting process, an evaluation of creditworthiness and reputation of the obligor is critical. We generally require our clients to retain a share of each transaction

that we insure. A key element to our underwriting analysis is the assessment of recovery in the event of default, and, accordingly, the strength of the collateral and the enforceability of rights to the collateral are paramount.

Generally, we do not underwrite insurance for structured finance products that would expose us to mark-to-market losses. In addition, our credit insurance contracts typically do not include terms which would introduce liquidity risk, most notably in the form of a collateralization requirement upon a ratings downgrade.

We also provide protection against sovereign default or sovereign actions that result in impairment of cross-border investments for banks and corporations. Our contracts generally include conditions precedent to our liability relating to the enforceability of the insured transaction and restricting amendments to the transaction documentation, obligations on the insured to prevent and minimize losses, subrogation rights, including rights to have the insured asset transferred to us, and waiting periods. Under most of our policies, a loss payment is made in the event that the debtor failed to pay our client when payment is due subject to a waiting period of up to 180 days.

In the reinsurance segment, we provide reinsurance of credit and surety bond insurers exposed to the risks of financial loss arising from non-payment of trade receivables covered by a policy (credit insurance) or non-performance of obligations (surety). Our credit insurance exposures are concentrated primarily within developed economies, while our surety bond exposures are concentrated primarily in Latin America and developed economies. We also provide coverage to the mortgage industry through insurance and reinsurance of mortgage insurance companies and U.S. government-sponsored entity credit risk sharing transactions. We focus on credit risk transfer from Federal Home Loan Mortgage Corporation and Federal National Mortgage Association, in the single-family, fixed rate, conforming mortgage space. We provide this cover globally on a proportional and non-proportional basis. Our exposure to mortgage risk is monitored and managed through robust underwriting within defined parameters for mortgage credit quality and concentration, continuous monitoring of the housing market, as well as limits on our PML resulting from a severe economic downturn in the housing market.

Operational Risk

Operational risk represents the risk of loss as a result of inadequate processes, system failures, human error or external events, including but not limited to direct or indirect financial loss, reputational damage, customer dissatisfaction, and legal and regulatory penalties.

Group Risk is responsible for coordinating and overseeing a group-wide framework for operational risk management. As part of this oversight, we maintain an operational loss-event database which helps us monitor and analyze potential operational risk issues, identify any trends, and, where necessary, put in place improvement actions to avoid occurrence or recurrence of operational loss events.

We manage transaction type operational risks through the application of process controls throughout our business. In testing these controls, we supplement the work of our internal audit team with regular underwriting and claim MIAs, as discussed above.

We have specific processes and systems in place to focus on high priority operational matters, such as managing business resilience, information security, and third-party vendor risk, which are described below:

- Major failures and disasters that could cause a severe disruption to working environments, facilities, and personnel, represent a significant operational risk to us. Our Business Continuity Management framework strives to protect critical business services and the functions that support these business services from these effects to enable us to carry out our core tasks in time and at the quality required.
- We have developed a number of Information Technology ("IT") platforms, applications and security controls to support our business activities worldwide. Dedicated security standards are in place for our IT systems to ensure the proper use, availability and protection of our information assets.
- Our use of third-party vendors exposes us to a number of increased operational risks, including the risk of security breaches, fraud, non-compliance with laws and regulations or internal guidelines and inadequate service. We manage material third-party vendor risk, by, among other things, performing a thorough risk assessment on potential large vendors, reviewing a vendor's financial stability, ability to provide ongoing service and business resilience planning.

Capital Management

Our capital management strategy is to maximize long-term shareholder value by, among other things, optimizing capital allocation and minimizing our cost of capital. We manage our capital in accordance with our Target Capital Range ("TCR") concept. The TCR defines the preferred level of capital needed to absorb shock losses and still satisfy our minimum solvency targets in relation to key capital benchmarks including our "own view" of risk from our internal capital model and regulatory and rating agency capital requirements, which are described below:

- Internal risk capital - We use our internal capital model to assess the capital consumption of our business, measuring and monitoring the potential aggregation of risk at extreme return periods.
- Regulatory capital requirements - In each country in which we operate, the local regulator specifies the minimum amount and type of capital that each of the regulated entities must hold in support of their liabilities and business plans. We target to hold, in addition to the minimum capital required to comply with the solvency requirements, an adequate buffer to ensure that each of our operating entities meets its local capital requirements. Refer to Item 8, Note 21 to the Consolidated Financial Statements '*Statutory Financial Information*' for further details.
- Rating agency capital requirements - Rating agencies apply their own models to evaluate the relationship between the required risk capital of a company and its available capital resources. The assessment of capital adequacy is usually an integral part of the rating agency process. Meeting rating agency capital requirements and maintaining strong credit ratings are strategic business objectives of the Company. Refer to Item 7 '*Management's Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources*' for further details.

The TCR identifies the point at which management needs to consider raising capital, amending our business plan or executing capital management activities well before capital approaches the minimum requirements ("early warning indicator"). This allows us to take appropriate measures to ensure the continued strength and appropriateness of our capital and solvency positions, and enables us to take advantage of opportunities as they arise. Such measures are performed as and when required and include traditional capital management tools (e.g., dividends, share buy-backs, issuance of shares or debt) or through changes to our risk exposure (e.g., recalibration of our investment portfolio or changes to our reinsurance purchasing strategy).

The TCR also considers an amount of capital beyond which capital could be considered "excess". Where we do not find sufficiently attractive opportunities and returns for our excess capital, we may return capital to our shareholders through share repurchases and/or dividends. In doing so, we seek to maintain an appropriate balance between higher returns for our shareholders and the security provided by a sound capital position.

ITEM 1A. RISK FACTORS

Insurance Risk

Insurance risk is the inherent uncertainty as to the occurrence, amount and timing of insurance and reinsurance liabilities transferred to us through the underwriting process.

The insurance/reinsurance business is historically cyclical, and we expect to experience periods with excess underwriting capacity and unfavorable premium rates.

The insurance/reinsurance business historically has been a cyclical industry characterized by periods of intense price competition due to excess underwriting capacity, as well as periods when shortages of capacity permitted favorable premium levels. An increase in premium rates is often offset by an increased supply of insurance and reinsurance capacity, via capital provided by new entrants, new capital market instruments and structures and/or the commitment of additional capital by existing insurers and reinsurers. Any of these factors could lead to a significant reduction in premium rates, less favorable policy terms and fewer submissions for our underwriting services. In addition to these considerations, changes in the frequency and severity of losses suffered by insureds and insurers may affect the cycles of the insurance/reinsurance business significantly.

Results of operations, financial condition or liquidity could be adversely affected by the occurrence of natural and man-made disasters, as well as outbreaks of pandemic or contagious diseases.

While we exited the catastrophe and property reinsurance lines of business in 2022, we continue to have exposure to unexpected losses resulting from natural disasters, man-made catastrophes and other catastrophe events. Catastrophes can be caused by various events, including hurricanes, typhoons, earthquakes, tsunamis, hailstorms, floods, severe winter weather, fires, drought and other natural disasters and outbreaks of pandemic or contagious diseases, including the COVID-19 pandemic. Catastrophes can also be man-made, such as terrorist attacks and other intentionally destructive acts, including those involving nuclear, biological, chemical or radiological events, cyber-attacks, explosions and infrastructure failures. The incidence and severity of catastrophes are inherently unpredictable and losses from catastrophes could be substantial.

Increases in the values and concentrations of insured property, particularly in coastal regions, and increases in the cost of construction materials required to rebuild affected properties, may continue to increase the impact of natural catastrophe events. Changes in global climate conditions may further increase the frequency and severity of natural catastrophe activity and losses. Similarly, changes in global political and economic conditions may increase both the frequency and severity of man-made catastrophe events. Other man-made catastrophes, such as cyber-attacks, are fast-evolving, and therefore the extent of their impact is highly uncertain. The impact of catastrophe events in years 2022, 2021 and 2020 included the recognition of the net losses and loss expenses of:

- \$403 million in the aggregate, primarily related to Hurricane Ian, the Russia-Ukraine war, Winter Storm Elliot, June European Convective Storms, and the COVID-19 pandemic in 2022;
- \$443 million, in the aggregate, primarily related to Hurricane Ida, U.S. Winter Storms Uri and Viola, and July European Floods in 2021; and
- \$774 million, in the aggregate, primarily related to the COVID-19 pandemic, Hurricanes Laura, Sally, Zeta and Delta, Midwest derecho, and wildfires across the West Coast of the United States in 2020.

These events materially reduced net income in the years noted. Although we manage our exposure to such events through the use of underwriting controls and the purchase of third-party reinsurance protection, catastrophe events are inherently unpredictable and the actual nature of such events when they occur could be more frequent or severe than contemplated in our pricing and risk management expectations. As a result, the occurrence of one or more catastrophe events could have a material adverse effect on our results of operations, financial condition or liquidity.

Cyber events are man-made perils and as such the threat landscape is dynamic and evolving. This risk of cyber-attacks could be exacerbated by geopolitical tensions, including hostile actions taken by nation-states and terrorist organizations. There is a risk that increases in the frequency and severity of losses to our clients from cyber events could adversely affect our results of operations, financial condition or liquidity. The losses incurred from this risk are also dependent on our clients' cybersecurity practices and defenses and the interaction of our policy wordings with the evolving threat landscape. In addition, our exposure to cyber events potentially includes exposure through 'non-affirmative' coverages, meaning risks and potential losses associated with policies where cyber risk is not explicitly included or excluded in the policy wording. As this is a relatively new peril, even in cases where losses from cyber events are explicitly excluded, there can be no assurance that a court or arbitration panel will interpret policy language in line with the intention of the exclusion.

We may be adversely impacted by inflation.

Our operations, like those of other insurers and reinsurers, are susceptible to the effects of inflation because premiums are established before actual losses and loss expenses are known. Although we consider the potential effects of inflation when setting premium rates, premiums may not fully offset the effects of inflation and thereby essentially result in underpricing the risks we insure and reinsure. Loss reserves include assumptions about future payments for settlement of claims and claims-handling expenses, such as the value of replacing property, associated labor costs for the property business we write and litigation costs. To the extent inflation causes costs to increase above loss reserves established for claims, we will be required to increase loss reserves with a corresponding reduction in net income in the period in which the deficiency is identified, which may have a material adverse effect on our results of operations or financial condition. Unanticipated higher inflation could also lead to higher interest rates, which would negatively impact the value of our fixed income securities and potentially other investments.

Global climate change, as well as increasing regulation in the area of climate change, may have an adverse effect on our results of operations, financial condition or liquidity.

We are potentially exposed to different aspects of climate risk, specifically, physical, investment, liability and transition risks, as a result of climate change.

Physical risks describe weather-related events and longer-term shifts in climate and emanate primarily from underwriting of property insurance and reinsurance. Climate change has added to the unpredictability and frequency of natural disasters in certain parts of the world and has created additional uncertainty as to future trends and exposures. Although the loss experience of catastrophe insurers and reinsurers has historically been characterized as low frequency, there is a growing concern today that climate change increases the frequency and severity of severe weather events. In recent years, the frequency of severe weather-related events has increased, and this trend may continue in the future. Climate change is likely to expose us to an increased frequency and/or severity of weather-related losses, and there is a risk that our pricing of these perils or our management of the associated aggregations does not appropriately allow for changes in climate. Over the longer term, climate change may have an impact on the economic viability of certain lines of business if suitable adjustments in price and coverage cannot be achieved.

Additionally, catastrophic events and the effects of climate change could result in increased credit exposure to reinsurers and other counterparties with whom we transact business, declines in the value of investments we hold and disruptions to our physical infrastructure, systems and operations.

Changes in security asset prices such as real estate, stocks and long-term bonds may impact the value of our investments, resulting in realized or unrealized losses on our invested assets. Climate-related risks to security asset prices can include, but are not limited to: (i) changes in supply/demand characteristics for fossil fuels (e.g., coal, oil, natural gas); (ii) advances in low-carbon technology and renewable energy development; (iii) effects of extreme weather events on the physical and operational exposure of issuers; and the (iv) transition that these companies make towards addressing climate risk in their own businesses.

We may also be exposed to liability risks. Liability risks relate to losses or damages suffered by our insureds from physical or transition risks, such as losses stemming from climate-related litigation in liability lines. These risks could arise from management and boards of directors not fully considering or responding to the impacts of climate change, or not appropriately disclosing current and future risks.

There is additionally a risk that certain elements of our business cease to be viable as a result of climate change 'transition' risks, which relate to losses driven by changes in technology, measures adopted by governments and regulators to encourage and support this transition, and society as a whole adapting to a lower-carbon economy. Recognizing the importance of this transition, effective 2020, AXIS Capital ceased underwriting risks for (and investing in the securities of) companies whose primary activity relates to thermal coal mining or power generation, or tar sands extraction, and in 2021, AXIS Capital announced a commitment to not underwrite new insurance or facultative reinsurance contracts, or provide investment support, for projects covering the exploration, production or transportation of oil and gas in the Arctic National Wildlife Refuge. Further, effective 2022, AXIS Capital committed to phasing out of the thermal coal business from its insurance, facultative reinsurance, and investment portfolios, ending all such activities no later than 2040. AXIS Capital has additionally committed to stop insuring any company developing a coal mine, or its dedicated infrastructure. There remains a risk that our financial condition or operating performance may be impacted by changes in our business model arising from climate change transition and by the performance of strategies we put in place to manage this transition.

Environmental, social and governance ("ESG") and sustainability have become major topics that encompass a wide range of issues, including climate change and other environmental risks. We are also subject to complex and changing laws, regulations and public policy debates relating to climate change which are difficult to predict and quantify and may have an adverse impact on our business. Changes in regulations relating to climate change or our own leadership decisions implemented as a result of assessing the impact of climate change on our business may result in an increase in the cost of doing business or a decrease in premiums.

We could face unanticipated losses from war, terrorism, political unrest, and geopolitical uncertainty, and these or other unanticipated losses could have an adverse effect on our results of operations, financial condition or liquidity.

We have substantial exposure to unexpected losses resulting from war, acts of terrorism, political unrest and geopolitical instability, including, but not limited to, events related to Russia's invasion of Ukraine and in many regions of the world. Russia's invasion of Ukraine is having a profound impact on energy markets, particularly in Europe, which is impacting and

may continue to impact economic conditions and investment returns. In certain instances, we specifically insure and reinsure risks resulting from acts of terrorism. Even in cases where we attempt to exclude losses from terrorism and certain other similar risks from some coverages written by us, there can be no assurance that a court or arbitration panel will interpret policy language or otherwise issue a ruling favorable to us. Accordingly, we can offer no assurance that our loss reserves will be adequate to cover losses should they materialize beyond expectation.

We have limited terrorism coverage in our own reinsurance program for our exposure to catastrophe losses related to acts of terrorism. On December 20, 2019, the President of the United States signed the Terrorism Risk Insurance Program Reauthorization Act of 2019 ("TRIP"), extending the program through December 31, 2027. Although TRIP provides benefits in the event of certain acts of terrorism, those benefits are subject to a deductible and to other limitations. Under TRIP, once losses attributable to certain acts of terrorism exceed 20% of direct commercial property and liability insurance premiums for the preceding calendar year, the federal government will reimburse insurers for 80% of losses in excess of this deductible.

Notably, TRIP does not provide coverage for reinsurance losses. Given the unpredictable frequency and severity of terrorism losses, as well as the limited terrorism coverage in our own reinsurance program, future losses from acts of terrorism could materially and adversely affect our results of operations, financial condition or liquidity in future periods.

Our credit and political risk insurance line of business protects insureds with interests in foreign jurisdictions in the event that governmental action prevents them from exercising their contractual rights, and may also protect their assets against physical damage perils. The insurance provided may include cover for losses arising from expropriation, forced abandonment, license cancellation, trade embargo, contract frustration, non-payment, war on land or political violence (including terrorism, revolution, insurrection and civil unrest).

Our credit and political risk line of business also provides non-payment coverage on specific loan obligations. We insure sovereign non-payment and corporate non-payment as a result of commercial as well as political risk events. The vast majority of the corporate non-payment credit insurance provided is for single-named illiquid risks, primarily in the form of senior bank loans that can be individually analyzed and underwritten. We avoid insurance for structured finance products defined by pools of risks and insurance for synthetic products that would expose us to mark-to-market losses. We also avoid terms in our credit insurance contracts that introduce liquidity risk, most notably, in the form of a collateralization requirement upon a ratings downgrade. We also manage our exposure by, among other things, setting credit limits by country, region, industry and individual counterparty, and regularly reviewing our aggregate exposures. However, due to globalization, political instability in one region can spread to other regions. Geopolitical uncertainty regarding a variety of domestic and international matters, such as the U.S. political and regulatory environment, the potential for default by one or more European sovereign debt issuers and the United Kingdom's exit from the European Union, or "Brexit", could have a material adverse effect on our results of operations, financial condition or liquidity.

The effects of emerging claim and coverage issues on our business are uncertain.

As industry practices and legal, judicial, social, political, technological and other environmental conditions change, unexpected issues related to systemic risks, claims and coverage may emerge. These issues may adversely affect our business by either extending coverage beyond our underwriting intent or by increasing the frequency and/or severity of claims. For example, the last global financial crisis resulted in a higher level of claim activity on professional lines insurance and reinsurance business. Moreover, legislative, regulatory, judicial or social influences may impose new obligations on insurers or reinsurers in connection with the COVID-19 pandemic or climate change that extend coverage beyond the intended contractual obligations, or result in an increase in the frequency or severity of claims beyond expected levels, as described in the COVID-19 and the climate change risk factors. In some instances, the effects of these changes may not become apparent until after we have issued the impacted insurance or reinsurance contracts. In addition, actual losses may vary materially from the current estimate of losses based on a number of factors (refer to '*If actual claims exceed our loss reserves, our financial results could be adversely affected*' below). As a result, the full extent of liability under an insurance or reinsurance contract may not be known for many years after the contract is issued and a loss occurs.

If actual claims exceed loss reserves, our financial results could be adversely affected.

While we believe that loss reserves at December 31, 2022 are adequate, new information, events or circumstances, unknown at the original valuation date, may lead to future developments in ultimate losses being significantly greater or less than the loss reserves currently provided. The actual final cost of settling claims outstanding at December 31, 2022, as well as claims expected to arise from the unexpired period of risk, is uncertain. For example, our loss reserves recorded in 2022 associated with the COVID-19 pandemic remain subject to significant uncertainty. There are many factors that would cause loss reserves to increase or decrease, which include, but are not limited to changes in claim severity, changes in the expected level

of reported claims, judicial action changing the scope and/or liability of coverage, changes in the legislative, regulatory, social and economic environment and unexpected changes in loss inflation.

When establishing our single point best estimate of loss reserves at December 31, 2022, management considered actuarial estimates and applied informed judgment regarding qualitative factors that may not be fully captured in actuarial estimates. Such factors included, but were not limited to, the timing of the emergence of claims, volume and complexity of claims, social and judicial trends, potential severity of individual claims and the extent of internal historical loss data versus industry information.

Changes to previous estimates of prior year loss reserves can adversely impact the reported calendar year underwriting results if loss reserves prove to be insufficient or can favorably impact reported results if loss reserves prove to be higher than actual claim payments. If net income is insufficient to absorb a required increase in loss reserves, we would incur a net loss and could incur a reduction in capital.

The failure of our loss limitation strategy could have an adverse effect on our results of operations, financial condition or liquidity.

We seek to mitigate loss exposure through multiple methods. For example, we write a number of reinsurance contracts on an excess of loss basis. Excess of loss reinsurance indemnifies the reinsured for losses in excess of a specified amount. We generally limit the line size for each client and line of business on our insurance business and purchase reinsurance for many of our lines of business. In the case of proportional reinsurance treaties, we seek per occurrence limitations or losses and loss expenses ratio caps to limit the impact of losses from any one event. In proportional reinsurance, the reinsurer shares a proportional part of the premiums and losses of the reinsured. We also seek to limit our loss exposure through geographic diversification. Geographic zone limitations involve significant underwriting judgments, including the determination of the area of the zones and the inclusion of a particular policy within a particular zone's limits. In addition, various provisions of our insurance policies and reinsurance contracts, such as limitations or exclusions from coverage or choice of forum negotiated to limit our risks, may not be enforceable in the manner we intend. We cannot be sure that these loss limitation methods will effectively prevent a material loss exposure, which could have a material adverse effect on our results of operations, financial condition or liquidity.

If we choose to purchase reinsurance, we may be unable to do so.

We purchase reinsurance for our insurance and reinsurance operations in order to mitigate the volatility of losses on our financial results. From time to time, market conditions have limited, and in some cases have prevented, insurers and reinsurers from obtaining the types and amounts of reinsurance that they consider adequate for their business needs. There is no guarantee that our desired amounts of reinsurance or retrocessional reinsurance will be available in the marketplace in the future. In the current environment, our ability to renew our current reinsurance or retrocessional reinsurance arrangements or obtain desired amounts of new or replacement coverage on favorable terms may be substantially reduced as a result of the impact of inflation, industry catastrophic losses to reinsurer capital and the appetite for certain lines of business. In addition to capacity risk, the remaining capacity may not be on terms we deem appropriate or acceptable or with companies with whom we want to do business. If we are unable to renew our current reinsurance or retrocessional reinsurance or purchase new or replacement coverage, the amount of business we are willing to write may be limited or our protection from losses due to large loss events may be materially reduced.

We utilize models to assist our decision making in key areas such as underwriting, reserving, investment management, capital assessment, risk management, reinsurance purchasing and the evaluation of our catastrophe risk, and we could be adversely impacted if these models are inadequate or unfit for the purpose for which they are being used.

We employ various modeling techniques (for example, scenarios, predictive, stochastic and/or forecasting) to analyze and estimate exposures and risks associated with our assets and liabilities. We utilize modeled outputs and related analyses to assist us in decision-making, for example, related to underwriting and pricing, reserving, investment, capital assessment, risk management, reinsurance purchasing and the evaluation of our catastrophe risk through estimates of probable maximum losses, or "PMLs". The modeled outputs and related analyses, both from proprietary and third-party models, are subject to various assumptions, professional judgment, uncertainties and the inherent limitations of any statistical analysis, including the use and quality of historical internal and industry data. These models may turn out to be inadequate representations of the underlying subject matter and consequently, actual losses from loss events, whether from individual components (for example, wind, flood, earthquake, etc.) or in the aggregate, may differ materially from modeled results. If, based upon these models or other factors, we misprice our products or underestimate the frequency and/or severity of loss events, our results of operations, financial condition or liquidity may be adversely affected. In addition, PMLs are based on results of stochastic

models that consider a wide range of possible events, their losses and probabilities. It is important to consider that stochastic events are not an exact representation of actual events. Thus, an actual event does not necessarily resemble one of the stochastic events, and the specific characteristics of the actual event can lead to substantial differences between actual and modelled losses.

With respect to the evaluation of our catastrophe risk, our modeling utilizes a mix of historical data, scientific theory and mathematical methods. Output from multiple commercially available vendor models serves as a key input in our PML estimation process. We believe that there is considerable inherent uncertainty in the data and parameter inputs for these vendor models. In that regard, there is no universal standard in the preparation of insured data for use in the models and the running of modeling software. In our view, the accuracy of the models depends heavily on the availability of detailed insured loss data from actual recent large catastrophes. Due to the limited number of events, there is significant potential for substantial differences between the modeled loss estimate and actual company experience for a single large catastrophe event. This potential difference could be even greater for perils with limited or no modeled annual frequency. We perform our own vendor model validation (including sensitivity analysis and backtesting, where possible) and supplement model output with historical loss information and analysis and management judgment. In addition, we derive our own estimates for non-modeled perils. Despite this, our PML estimates are subject to a high degree of uncertainty, and actual losses from catastrophe events may differ materially.

We could be adversely affected if managing general agents, general agents, coverholders, other producers and third-party administrators in our program business exceed their underwriting and/or claims settlement authorities or otherwise breach obligations owed to us.

In program business conducted by the insurance segment, following our underwriting, financial, claims and information technology due diligence reviews, we authorize managing general agents, general agents, coverholders and other producers to write business and settle claims on our behalf within prescribed authorities. Once a program/coverholder commences, we must rely on the underwriting, operational and claims controls of these entities to write business within the authorities provided by us. Although we monitor our programs/coverholders on an ongoing basis, our monitoring efforts may not be adequate or these entities may exceed their underwriting or claims settlement authorities or otherwise breach obligations owed to us. To the extent that these entities exceed their authorities or otherwise breach obligations owed to us in the future, our results of operations or financial condition could be materially adversely affected.

Strategic Risk

Strategic risks affect or are created by an organization's business strategy and strategic objectives. Our review of strategic risk evaluates not only internal and external challenges that might cause our chosen strategy to fail but also evaluates major risks that could affect our long-term performance and position.

Competition and consolidation in the insurance/reinsurance industry could reduce our growth and profitability.

The insurance/reinsurance industry is highly competitive. We compete on an international and regional basis with major U.S., Bermuda, European and other international insurers and reinsurers, including Lloyd's syndicates, some of which have greater financial, marketing and management resources. We also compete with new companies that enter the insurance/reinsurance markets. In addition, capital market participants have created alternative products that are intended to compete with insurance and reinsurance products. New and alternative capital inflows in the insurance/reinsurance industry and the retention by insured and cedants of more business may cause an excess supply of insurance and reinsurance capital. There has been a large amount of merger and acquisition activity in the insurance/reinsurance sector in recent years, which may continue; we may experience increased competition as a result of that consolidation with consolidated entities having enhanced market power. Increased competition could result in fewer submissions, lower premium rates, less favorable policy terms and conditions and greater costs of customer acquisition and retention. If industry pricing does not meet our hurdle rate, we may reduce our future underwriting activities. These factors could have a material adverse effect on our growth and profitability.

The insurance industry is undergoing extensive technological change. There is increasing focus by traditional insurance industry participants, technology companies, including new insurance technology companies ("InsurTech") and others on using technology and innovation to disrupt and/or enhance current business models. We expect this trend to enable enhanced customer focus, greater efficiencies, delivery of more relevant products and other sources of competitive advantage. If we do not adapt to these technological changes, it could harm our ability to compete, which could have a material adverse impact on our growth or profitability.

Furthermore, enhanced competition could drive innovation, technological change and changing customer preferences in the markets in which we operate, and these changes could pose other risks to our businesses. For example, they could result in increasing expenses as we make investments to innovate our products and services.

In addition, certain of our strategic choices, including our exit from catastrophe and property reinsurance lines of business in 2022, could impact our competitive position, which could have an impact on existing relationships and market share.

Global economic conditions could adversely affect our business, results of operations or financial condition.

Worldwide financial markets can be volatile, and the COVID-19 pandemic has set off a period of increased volatility with respect to global economic conditions. During 2022, inflation reached and stayed unusually high in many parts of the world, and central banks in the U.S. and other countries aggressively raised interest rates to counter inflation by slowing economic activity. Monetary policy tightening actions are ongoing at December 31 2022, and their long-term impact on financial markets and the real economy is still uncertain. Uncertainty and market turmoil has affected and may in the future affect, among other aspects of our business, the demand for and claims made under our products, the ability of customers, counterparties and others to establish or maintain their relationships with us, our ability to access and efficiently use internal and external capital resources and our investment performance and portfolio. We also provide coverage to the mortgage industry through insurance and reinsurance of mortgage insurance companies and U.S. government sponsored entity credit risk sharing transactions, and deteriorating economic conditions could cause mortgage insurance losses to increase and adversely affect our results of operations or financial condition.

In addition, steps taken by central banks to control inflation and/or governments to stabilize financial markets and improve economic conditions may be ineffective, and actual or anticipated efforts to continue to unwind some of such steps could disrupt financial markets and/or could adversely impact the value of our investment portfolio. Further increases in interest rates would decrease unrealized gains and/or increase unrealized losses on our debt securities portfolio, partially offset by our ability to earn higher rates of return on reinvested funds. Higher inflation could lead to even higher interest rates, which would continue to negatively impact the value of our existing fixed income or other investments.

Given the ongoing global economic uncertainties, evolving market conditions may continue to affect our results of operations, financial condition, and capital resources. In the event that there is additional deterioration or volatility in financial markets or general economic conditions, our results of operations, financial condition, capital resources, and competitive landscape could be materially and adversely affected.

Acquisitions that we made or may make could turn out to be unsuccessful.

As part of our strategy, we have pursued and may continue to pursue growth through acquisitions. For example, as part of our strategy to develop a market leading international specialty insurance business, we acquired Novae, a specialty insurer and reinsurer that operated through Lloyd's in 2017. The negotiation of potential acquisitions as well as the integration of an acquired business or new personnel could result in a substantial diversion of management resources. Successful integration will depend on, among other things, our ability to effectively integrate acquired businesses or new personnel into our existing risk management and financial and operational reporting systems, our ability to effectively manage any regulatory issues created by our entry into new markets and geographic locations, our ability to retain key personnel and other operational and economic factors. There can be no assurance that the integration of acquired businesses or new personnel will be successful, that we will realize anticipated synergies, cost savings and operational efficiencies, or that the business acquired will prove to be profitable or sustainable. The failure to integrate acquired businesses successfully or to manage the challenges presented by the integration process may adversely impact our financial results. Acquisitions could involve numerous additional risks such as potential losses from unanticipated litigation or levels of claims and inability to generate sufficient revenue to offset acquisition costs.

Our ability to grow through acquisitions will depend, in part, on our success in addressing these risks. Any failure by us to effectively implement our acquisitions strategy could have a material adverse effect on our business, results of operations or financial condition.

The exit of the U.K. from the E.U. could adversely affect us.

On June 23, 2016, the U.K. voted in favor of Brexit and in January 2020, the U.K. left the EU. A Trade and Cooperation Agreement, excluding financial services, was entered into between the E.U. and the U.K. on December 24, 2020. AXIS Managing Agency Ltd. accesses the EEA market through Lloyd's Insurance Company, based in Belgium, an arrangement approved by the National Bank of Belgium and the Financial Services and Markets Authority. An agreement was reached

between Lloyd's and the Belgian regulators on how London based underwriters, including AXIS Managing Agency Ltd., could access the E.U. market using Lloyd's Insurance Company S.A. (UK Branch). However, there have been discussions recently on whether this model is sustainable. While industry bodies are supportive of the arrangement, it appears that EIOPA, along with certain national regulators, disagree as to its legitimacy. Depending upon the outcome, AXIS Managing Agency Ltd.'s access to the EEA market could be impacted.

Any of these effects of Brexit, and others we cannot anticipate, could adversely affect our business, results of operations, or financial condition.

Since we depend on a few brokers for a large portion of our revenues, loss of business provided by any one of them could adversely affect us.

We market our insurance and reinsurance products worldwide primarily through insurance and reinsurance brokers and derive a significant portion of our business from a limited number of brokers. Marsh & McLennan Companies, Inc., including its subsidiary Guy Carpenter & Company, Inc., Aon plc and Arthur J. Gallagher & Co., provided 43% of gross premiums written in 2022. Our relationships with these brokers are based on the quality of our underwriting and claims services, as well as our financial strength ratings. Any deterioration in these factors could result in the brokers advising our clients to place their business with other insurers and reinsurers. In addition, these brokers also have, or may in the future acquire, ownership interests in insurance and reinsurance companies that may compete with us; these brokers may then favor their own insurers and reinsurers over other companies. Loss of all or a substantial portion of the business provided by one or more of these brokers could have a material adverse effect on our business.

A downgrade in our financial strength or credit ratings by one or more rating agencies could adversely affect our business, results of operations, financial condition or liquidity.

Claims paying and financial strength ratings are important factors in establishing the competitive position of insurance companies and maintaining customer confidence in us and in our ability to market insurance products. Independent rating agencies analyze the financial performance and condition of insurers on an ongoing basis.

There can be no assurance that we will not experience a ratings downgrade from one of the independent rating agencies. This could arise from a change in our financial performance, our financial condition or a change in ratings methodology. Ratings agencies may also heighten the level of scrutiny they apply when analyzing companies in our industry, adjust upward the capital and other requirements employed in their models and/or discontinue credit and debt instruments or other structures deployed for maintenance of certain rating levels. A downgrade, withdrawal or negative watch/outlook by any independent rating agency could cause our competitive position in the insurance/reinsurance industry to suffer and make it more difficult for us to market our products. In addition, if we experience a credit rating downgrade, withdrawal or negative watch/outlook in the future, we could incur higher borrowing costs and may have more limited means to access capital. A downgrade, withdrawal or negative watch/outlook could also result in a substantial loss of business for us, as ceding companies and brokers that place such business may move to other insurers and reinsurers with higher ratings. We would also be required to post collateral under the terms of certain of our policies of reinsurance.

We may require additional capital in the future, which may not be available or may only be available on unfavorable terms.

Our future capital requirements depend on many factors, including rating agency and regulatory requirements, the performance of our investment portfolio, our ability to write new business successfully, the frequency and severity of catastrophe events and our ability to establish premium rates and loss reserves at levels sufficient to cover losses. We may need to raise additional funds through financings. If we are unable to do so, it may curtail our ability to conduct our business. Any equity or debt financing, if available at all, may be on terms that are not favorable to us. As economic and market volatility continues, it is possible that access to the capital markets may become more constrained and cost of capital may increase. Equity financings could be dilutive to our existing shareholders and could result in the issuance of securities that have rights, preferences and privileges that are senior to those of our other securities. If we cannot obtain adequate capital on favorable terms or at all, our business, operating results and financial condition could be adversely affected.

Our inability to obtain the necessary credit could adversely affect our ability to offer reinsurance in certain markets.

Neither AXIS Specialty Bermuda nor AXIS Re SE is licensed or admitted as an insurer or reinsurer in any jurisdiction other than Bermuda, Ireland, Singapore and Brazil. Because the U.S. and certain other jurisdictions do not permit insurance companies to take credit on their statutory financial statements for reinsurance obtained from unlicensed or non-admitted

insurers unless appropriate security mechanisms are in place, our reinsurance clients in these jurisdictions typically require AXIS Specialty Bermuda and AXIS Re SE to provide letters of credit or other collateral. Our credit facilities are used to post letters of credit. However, if our credit facilities are not sufficient or if we are unable to renew our credit facilities or arrange for other types of security on commercially affordable terms, AXIS Specialty Bermuda and AXIS Re SE could be limited in their ability to write business for some of our clients.

We could be adversely affected by the loss of one or more key executives or by an inability to attract and retain qualified personnel or by the inability of an executive to obtain a Bermuda work permit.

Our success depends on our ability to retain the services of our existing key executives and to attract and retain additional qualified personnel in the future. The loss of the services of any of our key executives or the inability to hire and retain other highly qualified personnel in the future could adversely affect our ability to conduct our business. Changes in local employment legislation, taxation and the approach of regulatory bodies to compensation practices within our operating jurisdictions may impact our ability to recruit and retain qualified personnel or the cost to us of doing so. In addition, health emergencies or pandemics could impact our ability to attract and retain key personnel. There can be no assurance that we will be successful in identifying, hiring or retaining successors on terms acceptable to us.

With few exceptions, generally only Bermudians, spouses of Bermudians or Permanent Resident Certificate holders (collectively, "Residents") may engage in any gainful occupation in Bermuda without an appropriate governmental work permit. Work permits may be granted or extended by the Bermuda government only upon showing that, after proper public advertisement (in most cases), no Residents who meet the minimum standard requirements for the advertised position have applied for the position. Work permits are generally granted for one-, three- or five-year durations. Expatriate workers can, subject to the above, continue to be employed in Bermuda indefinitely by reapplying for work permits. All executive officers who work in our Bermuda office and who require work permits have obtained them.

Increasing scrutiny and evolving expectations from investors, customers, regulators, policymakers and other stakeholders regarding environmental, social and governance matters may adversely affect our reputation or otherwise adversely impact our business and results of operations.

Shareholders and investors have placed increased importance on how we are addressing ESG issues. In addition, regulators have adopted and likely will continue to adopt ESG-related rules and guidance, which may conflict with one another and impose additional costs on us. ESG encompasses a wide range of issues, including climate change and other environmental risks. Our leadership and Board are actively engaged in understanding the ever-changing ESG landscape and assessing our business operations to ensure that our business strategy reflects our values that our success depends on our commitment to a diverse workforce, an informed and active dialogue about ESG issues with our customers and shareholders and the strength of our ERM framework. We cannot predict whether our business decisions, business strategy and disclosures relating to climate change and other ESG issues will meet the expectations or requirements of relevant stakeholders, including certain key institutional shareholders. If we are unable to meet targets, standards, or expectations, whether established by us or third parties, it could result in adverse publicity, reputational harm, or loss of customer and/or investor confidence, which could adversely affect our business and results of operations.

COVID-19

The impacts of the novel coronavirus (COVID-19) pandemic may continue to pose a risk to our business, results of operations, financial condition and liquidity could be material.

The direct and indirect consequences of COVID-19 and related economic conditions are hard to predict and may continue to emerge and evolve for some time. Risks presented by the ongoing effects of COVID-19 and related economic conditions include the following:

- We have substantial exposure to losses resulting from catastrophe events, including pandemics. Losses have been incurred from the COVID-19 pandemic and we remain exposed to additional losses or deterioration. Total losses resulting from the COVID-19 pandemic will ultimately depend on its severity and duration and such losses could have a material adverse effect on our results of operations, financial condition or liquidity. We have identified exposures arising from our underwriting of insurance and reinsurance policies that cover accident and health (including travel), event cancellation, property/business interruption, and potential exposures arising from our underwriting of insurance and reinsurance policies that cover credit and surety (including mortgage) and professional lines (medical malpractice and directors' and officers' liability) among others. These exposures and potential exposures include direct claims relating to COVID-19 (e.g., business interruption following a shelter-in-place order) and indirect exposures arising from an ensuing

economic downturn. We note that other lines may be affected as the pandemic and associated economic downturn develop and new information is discovered.

- Our exposures are controlled and limited by our insurance and reinsurance contracts, which include specific terms and conditions defining if and how our policies respond to losses arising from the COVID-19 pandemic. However, legislative, regulatory, or judicial actions and social influences could alter the interpretation of our contracts or extend or change coverage (beyond the obligations set forth within those contracts or beyond what was intended by the parties). We set our reserves based on our best interpretation of the current legal position in applicable jurisdictions, but these legislative, regulatory or judicial actions make it difficult to precisely predict the total amount of losses we could incur as a result of the pandemic.
- Actual claims may exceed loss reserves. While we believe that net reserves for losses and loss expenses at December 31, 2022 are adequate, changes in the duration, severity, and scope of the impact of the COVID-19 pandemic from current expectations may result in ultimate losses being materially greater or less than the net reserves for losses and loss expenses currently provided. Among the factors that would cause net reserves for losses and loss expenses to increase or decrease are changes in claim frequency or severity driven by the COVID-19 pandemic or its related impact on the economy.
- Uncertainty and market turmoil caused by the COVID-19 pandemic could continue to affect, among other aspects of our business, the demand for our products and the ability of customers, counterparties and others to establish or maintain their relationships with us. In addition, the market for insurance and reinsurance could be smaller and certain industries for which we write business have been, and will likely continue to be, particularly impacted by the pandemic (such as, aviation and hospitality, among others), resulting in downward pressure on our premium levels.
- The performance of our cash and investments portfolio has a significant impact on our financial results. Government imposed restrictions on movements and/or social distancing practices have led, and if reinstated, could continue to lead, to sharp declines in the revenue of many companies and industries. We have some debt and/or equity exposure to some of these highly impacted sectors. Certain of our policyholders and intermediaries may not pay premiums owed to us due to insolvency or other reasons. Insolvency, liquidity problems, distressed financial condition due to the impact of the COVID-19 pandemic or the general effects of economic recession may increase the risk that policyholders or intermediaries, such as insurance brokers, may not pay a part of or the full amount of premiums owed to us, despite an obligation to do so. The terms of our contracts, or actions by our regulators, may not permit us to cancel our insurance even though we have not received payment. We may further decide (or be obliged by regulation) to refund premiums already paid where it is judged that the COVID-19 pandemic has reduced the customer need for insurance. If refunds or non-payments become widespread, whether as a result of insolvency, lack of liquidity, adverse economic conditions, operational failure or otherwise, it could have a material adverse impact on our revenues and results of operations.
- The COVID-19 pandemic could impact our ability to obtain reinsurance and retrocessional arrangements on favorable terms, which could limit the amount of business we are willing to write or reduce our reinsurance protection for large loss events.
- There is a risk of reputational damage resulting from claims disputes and underwriting renewal actions.

The continuing impact from the COVID-19 pandemic depends on future developments that cannot be accurately predicted at this time, such as the severity and transmission rate of the virus, the efficacy of vaccines and boosters, the extent and effectiveness of containment actions and the extent and effectiveness of government actions to support the economy. The duration and severity of the economic downturn is uncertain, as well as the impact of these and other factors on our employees, customers and partners. Such impact on our business, results of operations, financial condition or liquidity could be material.

Market Risk

Market risk is the risk that our financial instruments may be negatively impacted by movements in financial market prices or rates such as equity prices, interest rates, credit spreads and foreign currency exchange rates.

Our investment and derivative instrument portfolios are exposed to significant capital markets risk related to changes in interest rates, credit spreads and equity prices, as well as other risks, which may adversely affect our results of operations or financial condition.

The performance of our cash and investments portfolio has a significant impact on our financial results. A failure to successfully execute our investment strategy could have a significant impact on our results of operations or financial condition.

Our investment portfolio is subject to a variety of market risks, including risks relating to general economic conditions, interest rate fluctuations, equity price risk, foreign currency movements, pre-payment or reinvestment risk, liquidity risk and credit risk. Although we manage market risks through, among other things, stressing diversification and conservation of principal and liquidity in our investment guidelines, the persistency of higher inflation and resulting central bank monetary tightening along with geopolitical conflicts led to poor financial market returns in 2022. The poor global financial market returns in 2022 adversely impacted, and may continue to adversely impact, the value of our investments portfolio.

Our fixed maturities, which represent 84% of our total investments and 77% of total cash and investments at December 31, 2022, may be adversely impacted by changes in interest rates or credit spreads. Increases in yields could cause the fair value of our investment portfolio to decrease, resulting in a lower book value (refer to Item 7A 'Quantitative and Qualitative Disclosure About Market Risk' for further details) and capital resources. A decline in yields may result in reductions in our investment income as new funds and proceeds from sales and maturities of fixed income securities are reinvested at lower rates. This reduces our overall future profitability. Interest rates and credit spreads are highly sensitive to many factors, including governmental and central bank monetary policies, inflation, domestic and international economic and political conditions, corporate profitability and other factors beyond our control. In 2022, the U.S. Federal Reserve and other central banks increased interest rates at various times to stem inflation and may further increase rates in the future.

Our portfolios of "other investments" and equity securities expose us to market price variability, driven by a number of factors outside of our control including, but not limited to global equity market performance. Given our reliance on external investment managers, we are also exposed to operational risks, which may include, but are not limited to a failure to follow our investment guidelines, technological and staffing deficiencies and inadequate disaster recovery plans.

Our derivative instrument counterparties may default on amounts owed to us due to bankruptcy, insolvency, lack of liquidity, adverse economic conditions, operational failure, fraud or other reasons. Even if we are entitled to collateral in circumstances of default, such collateral may be illiquid or proceeds from such collateral when liquidated may not be sufficient to recover the full amount of the obligation.

Changes in the method for determining LIBOR and the potential replacement of LIBOR may adversely affect our cost of capital and net investment income.

Effective January 1, 2022, the FCA ceased publication of the one-week and two-month USD LIBOR and will cease publication of the remaining tenors immediately after June 30, 2023. Additionally, the U.S. Federal Reserve Board has advised banks to stop entering into new USD LIBOR based contracts.

The transition to replacements for LIBOR and other interest rate benchmarks, including EONIA and EURIBOR (collectively with LIBOR, the "IBORs"), is ongoing and the outcome remains uncertain. The Alternative Reference Rates Committee, convened by the Federal Reserve, has identified the Secured Overnight Financing Rate (SOFR) as its preferred alternative rate for USD LIBOR. SOFR is a measure of the cost of borrowing cash overnight, collateralized by U.S. Treasury securities, and is based on directly observable U.S. Treasury-backed repurchase transactions. Uncertainty as to the adoption, market acceptance or availability of SOFR or alternative reference rates or other reforms may adversely affect the trading market for LIBOR-based and alternative-based securities, including those held in our investment portfolio. Changes or reforms to the determination or supervision of LIBOR, SOFR or any other successor reference rate may result in a sudden or prolonged increase or decrease in reported LIBOR, SOFR or to a successor, which could have an adverse impact on the market for floating rate securities and the value of our investment portfolio and insurance products which directly or indirectly reference LIBOR, SOFR or its successor.

At December 31, 2022, our investment portfolio included \$2.4 billion of floating rate investments, of which over 75% were tied to LIBOR. The instruments and agreements governing our investments generally provide for appropriate fall-back language to select an alternative index and spread adjustment if the current index is no longer available, however there is no assurance that the alternative index will provide comparable returns. The potential effect of any such event on net investment income cannot yet be determined and any changes to benchmark interest rates could decrease net investment income, which could impact our results of operations, liquidity, or the market value of our investments.

The Company continues to develop and implement plans to mitigate the risks associated with the discontinuation of the IBORs. In particular, the Company has ceased offering and purchasing IBOR-linked securities and has included fallback

language or designated an alternate benchmark rate in IBOR-linked material instruments and agreements, including interest rate swap agreements.

Our operating results may be adversely affected by currency fluctuations.

Our reporting currency is the U.S. dollar. However, a portion of gross premiums are written and ceded in currencies other than the U.S. dollar and a portion of gross and ceded loss reserves are in non-U.S. currencies. In addition, a portion of our investment portfolio is denominated in currencies other than the U.S. dollar. We may experience losses or gains resulting from fluctuations in the values of these non-U.S. currencies. Although we manage our foreign currency exposure through matching of our major foreign-denominated assets and liabilities, as well as through use of currency derivatives, there is no guarantee that we will successfully mitigate our exposure to foreign exchange losses due to unfavorable currency fluctuations. Political unrest, sovereign debt concerns or other economic factors in jurisdictions in which we operate may magnify these risks.

Liquidity Risk

Liquidity risk is the risk that we may not have sufficient cash to meet our obligations when they are due, or would have to incur excessive costs to do so.

Our underwriting activities may expose us to liquidity risks.

Our exposure to liquidity risk stems mainly from the need to pay claims on potential extreme loss events and regulatory constraints that limit the flow of funds within the Group. We maintain cash and cash equivalents and high quality, liquid securities to meet expected outflows, as well as those that could result from a range of potential stress events. We place internal limits on the maximum percentage of cash and investments that may be in an illiquid form as well as on the minimum percentage of our asset portfolio that must be invested in unrestricted cash and liquid investment grade fixed income securities.

Additionally, we have access to diverse funding sources to cover contingencies. Funding sources include asset sales and external debt issuances, and we may seek to establish additional borrowing facilities to cover such contingencies. We conduct stress tests to ensure the sufficiency of these funding sources in extreme scenarios; however, there remains a risk that in certain circumstances, our results of operations or financial condition may be adversely impacted by our inability to access appropriate liquidity or the cost of doing so.

Credit Risk

Credit risk represents the risk of incurring financial loss due to the diminished creditworthiness (reduced financial strength and, ultimately, possibly default) and concentration of our third-party counterparties (refer to 'Market Risk' above for a discussion of credit risk as it relates to the investment portfolio).

If we successfully purchase reinsurance, we may be unable to collect amounts due to us.

A reinsurer's insolvency, or inability or refusal to make payments under the terms of its reinsurance agreement with us, could have a material adverse effect on our business because we remain liable to the insured. We face counterparty risk whenever we purchase reinsurance or retrocessional reinsurance, and inflation and industry catastrophic losses have heightened this risk as counterparties experience economic strains and uncertainty. Consequently, the insolvency, inability or unwillingness of any of our present or future reinsurers to make timely payments to us under the terms of our reinsurance or retrocessional agreements could have a material adverse effect on our results of operations, financial condition, or liquidity.

Our reliance on brokers subjects us to credit risk.

In accordance with industry practice, we pay amounts owed on claims under our insurance and reinsurance contracts to brokers, and these brokers pay these amounts over to the clients that have purchased insurance and reinsurance from us. Although the law is unsettled and depends upon the facts and circumstances of the particular case, in some jurisdictions, if a broker fails to make such a payment, we might remain liable to the insured or ceding insurer for the deficiency.

Conversely, in certain jurisdictions, when the insured or ceding insurer pays premiums for these policies to brokers for payment over to us, these premiums might be considered to have been paid to us and the insured or ceding insurer will no longer be liable to us for those amounts, whether or not we have actually received the premiums from the broker. Consequently, we assume a degree of credit risk associated with brokers with whom we transact business. These risks are heightened during periods characterized by financial market instability and/or an economic downturn or recession.

Certain of our policyholders and intermediaries may not pay premiums owed to us due to insolvency or other reasons.

Insolvency, liquidity problems, distressed financial condition or the general effects of economic recession, including due to the effects of the COVID-19 pandemic, may increase the risk that policyholders or intermediaries, such as insurance brokers, may not pay a part of or the full amount of premiums owed to us, despite an obligation to do so. The terms of our contracts may not permit us to cancel our insurance even though we have not received payment. If non-payment becomes widespread, whether as a result of insolvency, lack of liquidity, adverse economic conditions, operational failure or otherwise, it could have a material adverse impact on our revenues and results of operations.

Operational Risk

Operational risk represents the risk of loss as a result of inadequate processes, system failures, human error or external events, including but not limited to direct or indirect financial loss, reputational damage, customer dissatisfaction, and legal and regulatory penalties.

If we experience difficulties with technology and/or data security, our ability to conduct our business might be adversely affected.

While technology can streamline many business processes and ultimately reduce the cost of operations, technology initiatives present certain risks. Our business is dependent upon our employees' and outsourcers' ability to perform, in an efficient and uninterrupted fashion, necessary business functions such as processing policies and paying claims. A shutdown or inability to access one or more of our outsourcers' facilities, a power outage, or a failure of one or more of our outsourcers' information technology, telecommunications or other systems could significantly impair our ability to perform such functions on a timely basis. If sustained or repeated, such a business interruption, system failure or service denial could result in a deterioration of our ability to write and process business, provide customer service, pay claims in a timely manner or perform other necessary business functions. Despite our robust business continuity plan, which addresses the risk of such business interruption, system failure or service denial with input from both internal and external stakeholders, our systems may still be impacted. Unauthorized access, computer viruses, deceptive communications (phishing), malware, hackers and other external hazards including catastrophe events could expose our data systems to security breaches. These risks could expose us to data loss and damages.

Like other global companies, we are regularly the target of attempted cyber and other security threats and must continuously monitor and develop our information technology networks and infrastructure to prevent, detect, address and mitigate the risk of threats to our data and systems. These attacks and incidents have included, or may in the future include: unauthorized access, viruses, malware or other malicious code, ransomware, deceptive social engineering campaigns (also known as "phishing" or "spoofing"), loss or theft of assets, employee errors or malfeasance, third-party errors or malfeasance, as well as system failures and other security events. Over time, and particularly recently, the sophistication of these threats continues to increase. While administrative and technical controls, along with other preventive actions, reduce the risk of cyber incidents and protect our information technology, they may be insufficient to thwart cyber-attacks and/or prevent other security breaches to our systems.

While we have not experienced a recent disruption or security breach, to the extent any such disruption or breach results in a loss or damage to our data, or inappropriate disclosure of our confidential information or that of others, it could impact our operations, cause significant damage to our reputation, affect our relationships with our customers and clients, lead to claims against us under various data privacy laws, result in regulatory action and ultimately have a material adverse effect on our business or operations. In addition, although we purchase limited cyber insurance, we may be required to incur significant costs to mitigate the damage caused by any security breach, to address any interruptions in our business or to protect against future damage, which costs may not be covered by our cyber insurance.

We also operate in a number of jurisdictions with strict data privacy and other related laws, which could be violated in the event of a significant cybersecurity incident, or by personnel. Failure to comply with these obligations can give rise to monetary fines and other penalties that could be material.

Our business may be adversely affected if third-party outsourced service providers fail to satisfactorily perform certain technology and business process functions.

We outsource certain technology and business process functions to third parties. If we do not effectively develop and implement our outsourcing strategy, third-party providers do not perform as anticipated or we experience technological or

other problems with a transition, we may not realize productivity improvements or cost efficiencies and may experience operational difficulties, increased costs and a loss of business. Our outsourcing of certain technology and business process functions to third parties may expose us to enhanced risk related to data security, which could result in monetary and reputational damages. The COVID-19 pandemic may have increased the strain on business processes and technology at our third-party partners. In addition, our ability to receive services from third-party providers might be impacted by political instability or unanticipated regulatory requirements. As a result, our ability to conduct our business might be materially adversely affected.

We rely on internal processes to maintain our operations and manage the operational risks inherent to our business, and any errors, omissions or employee misconduct in the execution of these processes may result in financial losses.

We rely on the execution of internal processes to maintain and execute our operations. We seek to monitor and control our exposure to risks arising from these processes through an enterprise risk management framework, internal controls, management review and other processes. We cannot provide total assurance that these processes will effectively identify or control all risks, or that our employees and third-party agents will effectively execute them. Loss may result from, among other things, actual or alleged fraud; errors; or failure to document transactions properly, obtain proper internal authorization, comply with underwriting or other internal guidelines, or comply with regulatory requirements. These risks could result in losses that adversely affect our business, results of operations, or financial condition. An extended period of remote work arrangements could increase or introduce new operational risk and adversely affect our ability to manage our exposure to risks arising from our internal processes. Furthermore, insurance policies provided by third parties may not cover us if we experience a significant loss from these risks.

Regulatory Risk

Regulatory risk represents the risk arising from our failure to comply with legal, statutory or regulatory obligations.

Compliance with data protection and privacy laws and regulations governing the processing of personal data and information is a legal requirement, and non-compliance may impede our services or result in increased costs. Failure to comply could result in material fines and/or penalties imposed by data protection and/or financial services regulators. In addition, any data breach may have an adverse effect on our reputation, results of operations or financial condition, or have other adverse consequences.

Our business relies on the processing of data in many jurisdictions and the movement of data across national borders. The collection, storage, handling, disclosure, use, transfer and security of personal information that occurs in connection with our business is subject to federal, state and foreign data privacy laws. These legal requirements are not uniform and continue to evolve, and regulatory scrutiny in this area is increasing around the world. In many cases, these laws apply not only to third-party transactions, but also to transfers of information within the Group. Privacy and data protection laws may be interpreted and applied differently from country to country and may create inconsistent or conflicting requirements.

The General Data Privacy Regulation ("GDPR") has extra-territorial effect. It requires all companies processing data of E.U. citizens to comply with the GDPR, regardless of the company's location, and also imposes obligations on E.U. companies processing data of non-E.U. citizens. In particular, the GDPR imposes requirements regarding the processing of personal data and confers new rights on data subjects, including rights of access to their personal data, deletion of their personal data, the "right to be forgotten" and the right to "portability" of personal data. In the U.K., the Data Protection Act 2018 and the U.K. General Data Protection Regulation, which is the retained E.U. law version of the GDPR by virtue of the European Union (Withdrawal) Act 2018 and as amended by the Data Protection, Privacy and Electronic Communications (Amendments etc.) (E.U. Exit) Regulations 2019 (collectively, "U.K. GDPR"), regulates data protection for all individuals within the U.K. and applies to all our subsidiaries operating in the U.K.

The California Consumer Privacy Act ("CCPA") effective on January 1, 2020 confers rights on California residents including rights to know what personal information is collected about them and whether their personal information is sold (and if so, to whom), to access any personal information that has been collected and to require a business to delete their personal information. The California Privacy Rights Act ("CPRA") took effect on January 1, 2023 and becomes fully enforceable on July 1, 2023. There will be a "look back" to January 1, 2022, meaning that data collected in the 2022 calendar year is subject to the terms of the CPRA beginning on January 1, 2023. The CPRA will work as an addendum to the CCPA, strengthening the rights of California residents, tightening business regulations on the use of personal information and establishing a new government agency for state-wide data privacy enforcement. The CPRA may increase our compliance burden.

Compliance with the enhanced obligations imposed by data protection and other legislation, including Singapore's amended Personal Data Protection Act and Bermuda's Personal Information Protection Act, requires investment in appropriate technical or organizational measures to safeguard the rights and freedoms of data subjects. Such investment may result in significant costs to our business and may require us to modify certain of our business practices. In addition, enforcement actions, investigations and the imposition of substantial fines and penalties by regulatory authorities as a result of data security incidents and privacy violations have increased dramatically over the past several years. The enactment of more restrictive laws, rules, regulations or future enforcement actions or investigations could impact us through increased costs or restrictions on our business, and noncompliance could result in regulatory penalties and significant legal liability.

Unauthorized disclosure or transfer of sensitive or confidential client or Company data, whether through systems failure, employee negligence, fraud or misappropriation, by the Company or other parties with whom we do business, could also subject us to significant litigation, monetary damages, regulatory enforcement actions, fines and criminal prosecution in one or more jurisdictions. Such events could also result in negative publicity and damage to our reputation and cause us to lose business, which could therefore have a material adverse effect on our results of operations or financial condition.

The regulatory system under which we operate, and potential changes thereto, could have an adverse effect on our business.

Our insurance and reinsurance subsidiaries conduct business globally and are subject to varying degrees of regulation and supervision in multiple jurisdictions. In the U.K., Lloyd's has supervisory powers that pose unique regulatory risks. The laws and regulations of the jurisdictions and markets, including Lloyd's, in which our insurance and reinsurance subsidiaries are domiciled or operate require, among other things, that our subsidiaries maintain minimum levels of statutory capital and liquidity, meet solvency standards, participate in guaranty funds and submit to periodic examinations of their financial condition and compliance with underwriting and other regulations. These laws and regulations also limit or restrict payments of dividends and reductions in capital. Statutes, regulations and policies may also restrict the ability of these subsidiaries to write insurance and reinsurance contracts, make certain investments and distribute funds. The purpose of insurance laws and regulations generally is to protect insureds and ceding insurance companies, not our shareholders. We may not be able to comply fully with, or obtain appropriate exemptions from, these statutes and regulations, which could result in restrictions on our ability to do business or undertake activities that are regulated in one or more of the jurisdictions in which we conduct business and could subject us to fines and other sanctions. In addition, changes in the laws or regulations to which our insurance and reinsurance subsidiaries are subject or in the interpretation thereof by enforcement or regulatory agencies could have a material adverse effect on our business.

Potential government intervention in our industry as a result of recent events and instability in the marketplace for insurance products could hinder our flexibility and negatively affect the business opportunities that may be available to us in the market.

Government intervention and the possibility of future government intervention have created uncertainty in insurance and reinsurance markets. Government and regulators are generally concerned with having insurers and reinsurers with high solvency ratios and localized capital to ensure the protection of policyholders to the possible detriment of other constituents, including shareholders of insurers and reinsurers. Government, regulatory and judicial actions across multiple jurisdictions in relation to business interruption insurance have exacerbated the uncertainty by altering the interpretation of our contracts or extending or changing coverage (beyond the obligations set forth within those contracts or beyond what was intended by the parties).

Certain U.S. and non-U.S. judicial and regulatory authorities, including U.S. Attorney's Offices and certain state attorneys general, occasionally commence investigations into business practices in the insurance industry. In addition, although the U.S. federal government has not historically regulated insurance, there have been proposals from time to time to impose federal regulation on the U.S. insurance industry. In 2010, Dodd-Frank established a Federal Insurance Office ("FIO") within the U.S. Treasury. The FIO has limited regulatory authority to gather data and information regarding the insurance industry and has conducted and submitted a study to the U.S. Congress on how to modernize and improve insurance regulation in the U.S. This study's findings are not expected to have a significant impact on the Company. Further, Dodd-Frank gives the Federal Reserve supervisory authority over certain U.S. financial services companies, including insurance companies, if they are designated as 'systemically important' by a two-thirds vote of a Financial Stability Oversight Council. While we do not believe that we are systemically important, as defined in Dodd-Frank, Dodd-Frank or additional federal or state regulation that is adopted in the future could impose significant burdens on us, impact the ways in which we conduct our business and govern our subsidiaries, increase compliance costs, increase the levels of capital required to operate our subsidiaries, duplicate state regulation and/or result in a competitive disadvantage.

Certain of our European legal entities are subject to local laws that implement the Solvency II Directive. Solvency II covers three main areas: (i) the valuation of assets and liabilities on a Solvency II economic basis and risk-based solvency and capital requirements; (ii) governance requirements including requirements relating to the key functions of compliance, internal audit, actuarial and risk management; and (iii) new supervisory legal entity and group reporting and disclosure requirements including public disclosures. The BMA is fully equivalent under the Solvency II Directive for Bermuda's commercial insurance sector, including Class 4 insurers. In the lead-up to Brexit, the U.K. government onshored all Solvency II legislation into U.K. law. However, the U.K. is now seeking to make wholesale changes to its Solvency II regime, and is consulting with the industry on these proposed changes. The European Commission has not granted the U.K. Solvency II equivalence and is unlikely to do so in light of upcoming changes.

While we cannot predict the exact nature, timing or scope of possible governmental initiatives, such proposals could materially adversely affect our business by, among other things:

- Providing reinsurance capacity in markets and to consumers that we target;
- Requiring our further participation in industry pools and guaranty associations;
- Expanding the scope of coverage under existing policies; e.g., following large disasters;
- Further regulating the terms of insurance and reinsurance contracts; or
- Disproportionately benefiting the companies of one country over those of another.

Our international business is subject to applicable laws and regulations relating to sanctions and foreign corrupt practices, the violation of which could adversely affect our operations.

We must comply with all applicable economic and financial sanctions, other trade controls and anti-bribery laws and regulations of the U.S. and other foreign jurisdictions where we operate, including Bermuda, the U.K. and the European Community. U.S. laws and regulations applicable to us include the economic trade sanctions laws and regulations administered by the U.S. Department of Treasury's Office of Foreign Assets Control as well as certain laws administered by the U.S. Department of State. These laws and regulations are complex, frequently changing, and increasing in number, and they may impose additional prohibitions or compliance obligations on our dealings in certain countries and territories, including sanctions imposed on Russia and certain Ukraine territories. In addition, we are subject to the Foreign Corrupt Practices Act and other anti-bribery laws, such as the Irish Criminal Justice (Corruption Offences) Act, the Bermuda Bribery Act and the U.K. Bribery Act, which generally bar corrupt payments or unreasonable gifts. Although we have policies and controls in place that are designed to ensure compliance with these laws and regulations, it is possible that an employee or an agent acting on our behalf could fail to comply with applicable laws and regulations and, due to the complex nature of the risks, it may not always be possible for us to ascertain compliance with such laws and regulations. In such event, we could be exposed to civil penalties, criminal penalties and other sanctions, including fines or other unintended punitive actions. In addition, such violations could damage our business and/or our reputation. All of the foregoing could have a material adverse effect on our financial condition and operating results.

Risks Related to the Ownership of our Securities

In addition to the risks to our business listed above, there are certain other risks related to the ownership of our securities.

The price of our common shares may be volatile.

There has been significant volatility in the market for equity securities in recent years. During 2022, 2021, and 2020 the closing price of our common shares fluctuated from a low of \$48.77 to a high of \$60.66, a low of \$44.93 to a high of \$57.93, and a low of \$33.29 to a high of \$65.80, respectively. The price of our common shares may not remain at or exceed current levels. The following factors, in addition to those described in other risk factors above, may have a material adverse effect on the market price of our common stock:

- actual or anticipated variations in our quarterly results, including as a result of catastrophes or our investment performance;
- any share repurchase program;
- changes in market valuation of companies in the insurance/reinsurance industry;
- changes in expectations of future financial performance or changes in estimates of securities analysts;
- fluctuations in stock market processes and volumes;
- issuances or sales of common shares or other securities in the future;
- the addition or departure of key personnel;
- changes in tax law; and
- announcements by us or our competitors of acquisitions, investments or strategic alliances.

Stock markets in the U.S. continue to experience volatile price and volume fluctuations. Such fluctuations, as well as the general political situation, current economic conditions or interest rate or currency rate fluctuations, could materially adversely affect the market price of our stock.

Our ability to pay dividends and to make payments on indebtedness may be constrained by our holding company structure.

AXIS Capital is a holding company and has no direct operations of its own. AXIS Capital has no significant operations or assets other than its ownership of the shares of its operating insurance and reinsurance subsidiaries, AXIS Specialty Bermuda, AXIS Re SE, AXIS Specialty Europe SE, the Members of Lloyd's (AXIS Corporate Capital UK Limited and AXIS Corporate Capital UK II Limited), AXIS Re U.S., AXIS Specialty U.S., AXIS Surplus and AXIS Insurance Co. (collectively, our "Insurance Subsidiaries"). Dividends and other permitted distributions from our Insurance Subsidiaries (in some cases through our subsidiary holding companies) are our primary source of funds to meet ongoing cash requirements, including debt service payments and other expenses, and to pay dividends to our shareholders. Our Insurance Subsidiaries are subject to significant regulatory restrictions limiting their ability to declare and pay dividends and make distributions. The inability of our Insurance Subsidiaries to pay dividends in an amount sufficient to enable us to meet our cash requirements at the holding company level could have a material adverse effect on our business and our ability to pay dividends and make payments on our indebtedness.

AXIS Capital is a Bermuda company and it may be difficult to enforce judgments against it or its directors and executive officers.

AXIS Capital is incorporated pursuant to the laws of Bermuda, and our business is based in Bermuda. In addition, some of our directors and officers reside outside the U.S., and all or a substantial portion of our assets and the assets of such persons are located in jurisdictions outside the U.S. As a result, it may be difficult or impossible to effect service of process within the U.S. upon us or those persons or to recover against us or them on judgments of U.S. courts, including judgments predicated upon civil liability provisions of the U.S. federal securities laws. Further, it may not be possible to bring a claim in Bermuda against us or our directors and officers for violation of U.S. federal securities laws because these laws may not have extraterritorial effect and/or may not be enforceable in Bermuda. A Bermuda court may, however, impose civil liability, including the possibility of monetary damages, on us or our directors and officers in a suit brought in the Supreme Court of Bermuda if the Bermuda court considers that it has jurisdiction to hear and decide any such claim.

There are provisions in our organizational documents that may reduce or increase the voting rights of our shares.

Our bye-laws generally provide that shareholders have one vote for each common share held by them and are entitled to vote, on a non-cumulative basis, at all meetings of shareholders. However, the voting rights exercisable by a shareholder may be limited so that certain persons or groups are not deemed to hold 9.5% or more of the voting power conferred by our shares. Under these provisions, some shareholders may have the right to exercise their voting rights limited to less than one vote per share. Moreover, these provisions could have the effect of reducing the voting power of some shareholders who would not otherwise be subject to the limitation by virtue of their direct share ownership. In addition, our Board of Directors may limit a shareholder's exercise of voting rights where it deems it necessary to do so to avoid adverse tax, legal or regulatory consequences.

We also have the authority under our bye-laws to request information from any shareholder for the purpose of determining whether a shareholder's voting rights are to be limited pursuant to the bye-laws. If a shareholder fails to respond to our request for information or submits incomplete or inaccurate information in response to a request by us, we may, in our sole discretion, eliminate the shareholder's voting rights.

There are provisions in our bye-laws that may restrict the ability to transfer common shares and which may require shareholders to sell their common shares.

Our Board of Directors may decline to register a transfer of any common shares under some circumstances, including if they have reason to believe that any non-de minimis adverse tax, regulatory or legal consequences to us, any of our subsidiaries or any of our shareholders may occur as a result of such transfer. Our bye-laws also provide that if our Board of Directors determines that share ownership by a person may result in non-de minimis adverse tax, legal or regulatory consequences to us, any of our subsidiaries or any of our shareholders, then we have the option, but not the obligation, to require that shareholder to sell to us or to third parties to whom we assign the repurchase right for fair value the minimum number of common shares held by such person that is necessary to eliminate the non-de minimis adverse tax, legal or regulatory consequences.

Applicable insurance laws may make it difficult to effect a change of control of our company.

Before a person can acquire control of a U.S. insurance company, prior written approval must be obtained from the insurance commissioner of the state where the domestic insurer is domiciled. Prior to granting approval of an application to acquire control of a domestic insurer, the state insurance commissioner will consider such factors as the financial strength of the acquirer, the integrity and management of the acquirer's board of directors and executive officers, the acquirer's plans for the future operations of the domestic insurer and any anti-competitive results that may arise from the consummation of the acquisition of control. Generally, state statutes provide that control over a domestic insurer is presumed to exist if any person, directly or indirectly, owns, controls, holds with the power to vote, or holds proxies representing, 10% or more of the voting securities of the domestic insurer. Because a person acquiring 10% or more of our common shares would indirectly control the same percentage of the stock of the AXIS U.S. Subsidiaries, the insurance change of control laws of Connecticut, Illinois and New York would likely apply to such a transaction.

The Insurance Act in Bermuda requires that where the shares of a registered insurer or reinsurer, or the shares of its parent, are traded on a recognized stock exchange, and a person becomes a 10%, 20%, 33% or 50% shareholder controller of that insurer or reinsurer, that person shall, within 45 days, notify the BMA in writing that they have become such a controller. In addition, a person who is a shareholder controller of a Class 4 insurer or reinsurer (such as AXIS Specialty Bermuda) whose shares or shares of its parent company are traded on a recognized stock exchange must serve the BMA with a notice in writing that they have reduced or disposed of their holding in the insurer or reinsurer where the proportion of voting rights in the insurer or reinsurer held by them will have reached or has fallen below 10%, 20%, 33% or 50%, as the case may be, not later than 45 days after such reduction or disposal. The definition of shareholder controller is set out in the Insurance Act but generally refers to a person who (i) holds 10% or more of the shares carrying rights to vote at a shareholders' meeting of the registered insurer or reinsurer or its parent; (ii) is entitled to exercise, or control the exercise of, 10% or more of the voting power at any shareholders meeting of the registered insurer or reinsurer or its parent; or (iii) is able to exercise significant influence over the management of the registered insurer or reinsurer or its parent by virtue of its shareholding or its entitlement to exercise, or control the exercise of, the voting power at any shareholders' meeting of the registered insurer or reinsurer or its parent company. The BMA may object to any person holding 10% or more of our common shares if it appears to the BMA that such person is not, or is no longer, a fit and proper person to be such a holder. In such a case, the BMA may require the shareholder to reduce its holding of common shares or direct, among other things, that voting rights attaching to the common shares shall not be exercisable. A person who does not comply with such a notice or direction from the BMA will be guilty of an offense.

In addition, the Insurance Acts and Regulations in Ireland require that anyone acquiring or disposing of a direct or indirect holding in an Irish authorized insurance or reinsurance company (such as AXIS Specialty Europe or AXIS Re SE) that represents 10% or more of the capital or of the voting rights of such company or that makes it possible to exercise a significant influence over the management of such company, or anyone who proposes to decrease or increase that holding to specified levels, must first notify the Central Bank of Ireland ("CBI") of their intention to do so. They also require any Irish authorized insurance or reinsurance company that becomes aware of any acquisitions or disposals of its capital involving the specified levels to notify the CBI. The specified levels are 20%, 33% and 50% or such other level of ownership that results in the company becoming the acquirer's subsidiary within the meaning of article 20 of the European Communities (Non-Life Insurance) Framework Regulations 1994.

The CBI has three months from the date of submission of a notification within which to oppose the proposed transaction if the CBI is not satisfied as to the suitability of the acquirer in view of the necessity "to ensure prudent and sound management of the insurance or reinsurance undertaking concerned". Any person owning 10% or more of the capital or voting rights or an amount that makes it possible to exercise a significant influence over the management of AXIS Capital would be considered to have a "qualifying holding" in AXIS Specialty Europe SE and AXIS Re SE.

In the U.K., the Prudential Regulation Authority ("PRA") and the Financial Conduct Authority ("FCA") regulate the acquisition of "control" of any U.K. insurance companies and Lloyd's managing agents that are authorized under the Financial Services and Markets Act 2000 ("FSMA"). Any legal entity or individual that (together with any person with whom it or they are "acting in concert") directly or indirectly acquires 10% or more of the shares in a U.K. authorized insurance company or Lloyd's managing agent, or their parent company, or is entitled to exercise or control the exercise of 10% or more of the voting power in such authorized insurance company or Lloyd's managing agent or their parent company, would be considered to have acquired "control" for the purposes of the relevant legislation, as would a person who had significant influence over the management of such authorized insurance company or their parent company by virtue of their shareholding or voting power in either. A purchase of 10% or more of the ordinary shares of the Company would therefore be considered to have acquired "control" of AXIS Managing Agency Ltd. Under FSMA, any person proposing to acquire "control" over a U.K. authorized insurance company must give prior notification to the PRA of their intention to do so. The PRA, which will consult with the FCA, would then have 60 working days to consider that person's application to acquire "control" (although this 60 working day period can be extended by up to 30 additional working days in certain circumstances where the regulators have questions relating to the application). Failure to make the relevant prior application could result in action being taken against AXIS Managing Agency Ltd. by the PRA.

A person who is already deemed to have "control" will require prior approval of the PRA if such person increases their level of "control" beyond certain percentages. These percentages are 20%, 30% and 50%. Similar requirements apply in relation to the acquisition of control of a U.K. authorized person which is an insurance intermediary (such as AXIS Underwriting Limited) except that the approval must be obtained from the FCA rather than the PRA and the threshold triggering the requirement for prior approval is 20% of the shares or voting power in the insurance intermediary or its parent company. The approval of the Council of Lloyd's is also required in relation to the change of control of a Lloyd's managing agent or member. Broadly, Lloyd's applies the same tests in relation to control as are set out in the FSMA (see above) and in practice coordinates its approval process with that of the PRA.

While our bye-laws limit the voting power of any shareholder to less than 9.5%, there can be no assurance that the applicable regulatory body would agree that a shareholder who owned 10% or more of our shares did not, because of the limitation on the voting power of such shares, control the applicable Insurance Subsidiary. These laws may discourage potential acquisition proposals and may delay, deter or prevent a change of control of the Company, including transactions that some or all of our shareholders might consider to be desirable.

Anti-takeover provisions in our bye-laws could impede an attempt to replace our directors or to effect a change in control, which could diminish the value of our common shares.

Our bye-laws contain provisions that may make it more difficult for shareholders to replace directors and could delay or prevent a change of control that a shareholder might consider favorable. These provisions include a staggered board of directors, limitations on the ability of shareholders to remove directors other than for cause, limitations on voting rights and restrictions on transfer of our common shares. These provisions may prevent a shareholder from receiving the benefit from any premium over the market price of our shares offered by a bidder in a potential takeover. Even in the absence of an attempt to effect a change in management or a takeover attempt, these provisions may adversely affect the prevailing market price of our shares if they are viewed as discouraging takeover attempts in the future.

Risks Related to Taxation

Changes in tax laws resulting from the recommendations of the Organization for Economic Corporation and Development ("OECD") could materially adversely affect us.

The OECD launched a global initiative among member and non-member countries on measures to limit harmful tax competition, known as the "Base Erosion and Profit Shifting" ("BEPS") project and, in 2015, published reports containing a suite of recommended actions. These measures are largely directed at counteracting the effects of low-tax and preferential tax regimes in countries around the world, including expanding the definition of permanent establishment and updating the rules for attributing profits to permanent establishments, tightening transfer pricing rules to ensure that outcomes are in line with value creation, neutralizing the effect of hybrid financial instruments and limiting the deductibility of interest costs for tax purposes and preventing double tax treaty abuse. Many countries have changed or announced future changes to their tax laws in response to the BEPS project. In particular, the E.U. has sought to harmonize the response of member states to the BEPS reports via the Anti-Tax Avoidance Directives ("the ATAD and the ATAD II"). The ATAD and the ATAD II require all E.U. member states to apply certain specified anti-avoidance measures, including a controlled foreign companies regime, limitations on interest deduction and anti-hybrid rules. On December 22, 2021, the European Commission proposed a third Anti-Tax Avoidance Directive ("ATAD III"), which aims to combat the abuse of investment structures that do not carry out actual economic activities, specifically "shell companies". ATAD III proposes to introduce a minimum substance test and reporting requirements for multinational groups to identify "shell companies". However, ATAD III must be unanimously agreed between E.U. Member States and remains subject to negotiation and opposition by certain E.U. Member States. Changes to tax laws and additional reporting requirements could increase the tax burden and the complexity and cost of tax compliance.

On May 31, 2019, the OECD published a "Programme of Work", designed to address the tax challenges created by an increasingly digitalized economy. This was divided into two pillars. Pillar One addresses the broader challenge of a digitalized economy and focuses on the allocation of group profits among taxing jurisdictions, based on a market-based concept rather than the historical "permanent establishment" concept. Pillar Two addresses the remaining BEPS risk of profit shifting to entities in low tax jurisdictions by introducing a global minimum tax. On December 20, 2021, the OECD released proposed model legislation for Pillar Two which was approved by 135 countries. The Pillar Two legislation would impose a minimum tax rate of 15% on each jurisdiction that has an effective tax rate less than the minimum. The model rules now need to be implemented through domestic legislation. It is expected that 2024 is the earliest that such legislation will come into effect in any of our jurisdictions. If enacted these rules may have a material impact on our effective tax rate.

On December 22, 2021, the European Commission proposed a Directive to effect a global minimum tax rate of 15% for any large group with combined financial revenues of more than 750 million euros a year and either a parent company or a subsidiary situated in an EU Member State. This delivers on the E.U.'s pledge to implement global tax reform agreed by the OECD/G20 Inclusive Framework on BEPS. Importantly, the proposal sets out how the effective tax rate will be calculated per jurisdiction and incorporates legal requirements to ensure that large groups in the E.U. pay a 15% minimum rate of tax for every jurisdiction in which they operate. On December 12, 2022, the EU Member States reached unanimous agreement to implement the OECD/G20 Inclusive Framework's Pillar Two proposals effective 2024. It is anticipated that these rules may have a material impact on our effective tax rates.

We may become subject to taxes in Bermuda after March 31, 2035, which may have an adverse effect on our results of operations.

The Bermuda Minister of Finance, under the Exempted Undertakings Tax Protection Act 1966 of Bermuda, as amended, has given each of our Bermuda resident companies an assurance that if any legislation is enacted in Bermuda that would impose tax computed on profits or income, or computed on any capital asset, gain or appreciation, or any tax in the nature of estate duty or inheritance tax, then the imposition of any such tax will not be applicable to our Bermuda resident companies or any of their respective operations, shares, debentures or other obligations until March 31, 2035. Given the limited duration of the Minister of Finance's assurance, we cannot be certain that we will not be subject to any Bermuda tax after March 31, 2035. However, as noted above, if the Pillar Two rules are adopted in our relevant jurisdictions, the profits earned in Bermuda would nonetheless be subject to taxation up to the minimum tax rate of 15%.

Our non-U.S. companies may be subject to U.S. tax that may have an adverse effect on our results of operations.

We intend to manage our business so that each of our non-U.S. companies, apart from our Lloyd's operations with U.S. effectively connected income, will operate in such a manner that none of these companies should be subject to U.S. tax (other than U.S. excise tax on insurance or reinsurance premiums attributable to insuring or reinsuring U.S. risks and U.S. withholding tax on some types of U.S. source investment income), because none of these companies should be treated as engaged in a trade or business within the U.S. However, because there is considerable uncertainty as to the activities that constitute being engaged in a trade or business within the U.S., we cannot be certain that the U.S. Internal Revenue Service will not contend successfully that any of our non-U.S. companies is/are engaged in a trade or business in the U.S. If any of our non-U.S. companies were considered to be engaged in a trade or business in the U.S., it could be subject to U.S. corporate income and additional branch profits taxes on the portion of its earnings effectively connected to such U.S. business. If this were to be the case, our results of operations could be materially adversely affected.

Changes in U.S. tax law could adversely affect us.

The tax treatment of non-U.S. companies and their U.S. and non-U.S. subsidiaries may be the subject of future legislation. We cannot predict the particulars of any proposed legislation, or whether such legislation would have any effect on us. Future legislation in the U.S. may arise in an effort to harmonize US tax law with OECD Pillar Two initiatives. No assurance may be given that future legislative, administrative, or judicial developments will not produce an adverse U.S. tax consequence to us. If any such adverse developments do occur, our results of operations may be materially adversely affected.

Our non-U.K. companies may be subject to U.K. tax that may have an adverse effect on our results of operations.

We intend to operate in such a manner so that none of our non-U.K. companies are resident in the U.K. for tax purposes and that none of our non-U.K. resident companies, other than AXIS Specialty Europe and AXIS Specialty U.S. Services, Inc., have a permanent establishment in the U.K. Accordingly, we expect that none of our non-U.K. resident companies, other than AXIS Specialty Europe and AXIS Specialty U.S. Services, Inc., will be subject to U.K. tax. Nevertheless, because neither case law nor U.K. statutes conclusively define the activities that constitute trading in the U.K. through a permanent establishment, the U.K. tax authority might contend successfully that one or more of our non-U.K. companies, in addition to AXIS Specialty Europe and AXIS Specialty U.S. Services, Inc., is trading in the U.K. through a permanent establishment in the U.K. and therefore subject to U.K. tax.

In addition, there are circumstances in which companies that are neither resident in the U.K., nor entitled to the protection afforded by a double tax treaty between the U.K. and the jurisdiction in which they are resident, may be exposed to income tax in the U.K. (other than by deduction or withholding) on the profits of a trade carried on there even if that trade is not carried on through a permanent establishment. We intend to operate in such a manner that none of our companies will be subject to U.K. income tax in this respect.

If any of our non-U.K. resident companies were treated as being resident in the U.K. for U.K. corporation tax purposes, or if any of our non-U.K. companies, other than AXIS Specialty Europe or AXIS Specialty U.S. Services, Inc., were to be treated as carrying on a trade in the U.K., whether or not through a permanent establishment, our results of operations could be materially adversely affected.

The U.K. diverted profits tax ("DPT") is separate from U.K. corporation tax and is charged at a higher rate. It is an anti-avoidance measure aimed at protecting the U.K. tax base against the artificial diversion of profits that are being earned by activities carried out in the U.K. but which are not otherwise being taxed in the U.K., in particular as a result of arrangements between companies in the same multinational group. The U.K. network of double tax treaties does not offer protection from a DPT charge. In the event that the rules apply to certain arrangements, upfront payment of the U.K. tax authority's estimate of the deemed tax liability may be required. If any of our non-U.K. companies is liable to DPT, our results could be materially adversely affected.

Changes in U.K. tax law could adversely affect us.

AXIS Specialty Europe, AXIS Specialty U.S. Services, Inc. and our U.K. resident companies are treated as taxable in the U.K. On October 14, 2022, the U.K. government reaffirmed plans to increase its corporate tax rate from 19% to 25% with effect from April 1, 2023. Future changes in the basis or rate of U.K. corporation tax could materially adversely affect the operations of these companies.

Our non-Irish companies may be subject to Irish tax that may have an adverse effect on our results of operations.

We intend to operate our non-Irish resident companies in such a manner so that none of our non-Irish resident companies are resident in Ireland for tax purposes and are not treated as carrying on a trade through a branch or agency in Ireland.

Accordingly, we expect that none of our non-Irish resident companies will be subject to Irish corporation tax. Nevertheless, since the determination as to whether a company is resident in Ireland is a question of fact to be determined based on a number of different factors and since neither case law nor Irish legislation conclusively defines the activities that constitute trading in Ireland through a branch or agency, the Irish Revenue Commissioners might contend successfully that one or more of our non-Irish companies is resident in or otherwise trading through a branch or agency in Ireland and therefore subject to Irish corporation tax. If this were the case, our results of operations could be materially adversely affected.

Changes in Irish tax law could adversely affect us.

Trading income derived from the insurance and reinsurance business carried on in Ireland by AXIS Specialty Europe and AXIS Re SE is generally taxed in Ireland at a rate of 12.5%. Over the past number of years, various E.U. member states have, from time to time, called for harmonization of the corporate tax base within the E.U. Ireland, along with other member states, has consistently resisted any movement towards standardized corporate tax rates or tax base in the E.U. The Government of Ireland has also made clear its commitment to retain the 12.5% rate of corporation tax. If, however, tax laws in Ireland change so as to increase the general corporation tax rate, our results of operations could be materially adversely affected. Irish profits would become subject to the 15% global minimum tax rate pursuant to the European Commission Directive discussed above.

If investments held by AXIS Specialty Europe SE or AXIS Re SE are determined not to be integral to the insurance and reinsurance business carried on by those companies, additional Irish tax could be imposed and our business and financial results could be adversely affected.

Based on administrative practice, taxable income derived from investments made by AXIS Specialty Europe and AXIS Re SE is generally taxed in Ireland at the rate of 12.5% on the grounds that such investments either form part of the permanent capital required by regulatory authorities, or are otherwise integral to the insurance and reinsurance business carried on by those companies. AXIS Specialty Europe and AXIS Re SE intend to operate in such a manner so that the level of investments held by such companies does not exceed the amount that is integral to the insurance and reinsurance business carried on by AXIS Specialty Europe and AXIS Re SE. If, however, investment income earned by AXIS Specialty Europe or AXIS Re SE is deemed to be non-trading income, Irish corporation tax could apply to such investment income at a rate higher than the general 12.5% rate, and our results of operations could be materially adversely affected.

Our operations may be adversely affected by a transfer pricing adjustment in computing taxable profits.

Any affiliated arrangements between contracting parties established in different jurisdictions are subject to transfer pricing regimes. Consequently, if any arrangement (including any reinsurance or financing arrangements) is found not to be on arm's length terms, an adjustment will be required to compute taxable profits as if the arrangement were on arm's length terms. Any transfer pricing adjustment could materially adversely impact the tax charge suffered by the relevant tax-paying company.

Effective January 1, 2016, Bermuda implemented country by country reporting ("CBCR") whereby multinational groups are required to report details of their operations and intra-group transactions in each jurisdiction. It is possible that our approach to transfer pricing may become subject to greater scrutiny from the tax authorities in the jurisdictions in which we operate, which may lead to transfer pricing audits in the future.

General Risk Factors

Future changes in current accounting practices may adversely impact our reported financial results.

Future changes in accounting practices may result in significant additional expenses and may affect the calculation of financial statement line items. For example, this could occur if we are required to prepare information relating to prior periods or if we are required to apply new requirements retroactively.

ITEM 1B. UNRESOLVED STAFF COMMENTS

At December 31, 2022, we had no outstanding, unresolved comments from the SEC staff.

ITEM 2. PROPERTIES

We maintain leased office facilities in Bermuda, the U.S., Europe, Singapore, and Canada. In 2022, we owned the building in which our office in Dublin, Ireland was located. In January 2023, we sold this building. We renew and enter into leases in the ordinary course of business as required. Our global headquarters is located at 92 Pitts Bay Road, AXIS House, Pembroke HM 08, Bermuda. We believe that our office space is sufficient for us to conduct our operations for the foreseeable future.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we are subject to routine legal proceedings, including arbitrations, arising in the ordinary course of business. These legal proceedings generally relate to claims asserted by or against us in the ordinary course of its insurance or reinsurance operations. Estimated amounts payable related to these proceedings are included in reserve for losses and loss expenses in our consolidated financial statements.

We are not party to any material legal proceedings arising outside the ordinary course of business.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common shares are listed on the New York Stock Exchange under the symbol "AXS".

On February 22, 2023, the number of holders of record of our common shares was 20. This figure does not represent the actual number of beneficial owners of our common shares because shares are frequently held in "street name" by securities dealers and others for the benefit of beneficial owners who may vote the shares.

We have a history of paying quarterly cash dividends. While we expect to continue paying comparable cash dividends in the foreseeable future, the declaration and payment of future dividends is at the discretion of our Board of Directors and will depend on many factors including, but not limited to, our net income, financial condition, business needs, capital and surplus requirements of our operating subsidiaries and regulatory and contractual restrictions, including those set forth in our credit facilities. Refer to Item 7 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources' for further details.

Issuer Purchases of Equity Securities

Common Shares

The following table shows information regarding the number of common shares repurchased in the quarter ended December 31, 2022:

Period	Total number of shares purchased ^{(a) (b)}	Average price paid per share	Total number of shares purchased as part of publicly announced programs	Maximum number (or approximate dollar value) of shares that may yet be purchased under the programs ^(c)
October 1-31, 2022	1	\$49.15	—	\$65 million
November 1-30, 2022	4	\$54.12	—	\$65 million
December 1-31, 2022	1	\$56.96	—	\$65 million
Total	6		—	\$65 million

(a) In thousands.

(b) Includes shares repurchased from employees to facilitate the satisfaction of their personal withholding tax liabilities that arise on the vesting of share-settled restricted stock units and shares repurchased as part of our publicly announced program, described below.

(c) On December 8, 2022, our Board of Directors authorized a new share repurchase program for up to \$100 million of our common shares through December 31, 2023. The new share repurchase authorization, effective January 1, 2023, replaced the previous program which had \$65 million available until December 31, 2022. Share repurchases may be effected from time to time in the open market or privately negotiated transactions, depending on market conditions.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following is a discussion and analysis of our results of operations for the years ended December 31, 2022 and 2021, and our financial condition at December 31, 2022 and 2021. This should be read in conjunction with Item 8 'Financial Statements and Supplementary Data' of this report. Unless otherwise noted, tabular dollars are in thousands, except per share amounts. Amounts may not reconcile due to rounding differences.

	Page
2022 Financial Highlights	57
Overview	58
Consolidated Results of Operations	61
Results by Segment:	
i) Insurance Segment	63
ii) Reinsurance Segment	66
Net Investment Income and Net Investment Gains (Losses)	70
Other Expenses (Revenues), Net	72
Financial Measures	74
Non-GAAP Financial Measures Reconciliation	76
Cash and Investments	79
Liquidity and Capital Resources	86
Critical Accounting Estimates	92
i) Reserve for Losses and Loss Expenses	93
ii) Reinsurance Recoverable on Unpaid Losses and Loss Expenses	100
iii) Gross Premiums Written	101
iv) Net Premiums Earned	103
v) Fair Value Measurements of Financial Assets and Liabilities	103
vi) Impairment Losses and the Allowance for Expected Credit Losses - Fixed Maturities, Available for Sale	105
Recent Accounting Pronouncements	106

2022 FINANCIAL HIGHLIGHTS

2022 Consolidated Results of Operations

- Net income available to common shareholders of \$193 million, or \$2.27 per common share, and \$2.25 per diluted common share
- Operating income⁽¹⁾ of \$498 million, or \$5.81 per diluted common share⁽¹⁾
- Gross premiums written of \$8.2 billion
- Net premiums written of \$5.3 billion
- Net premiums earned of \$5.2 billion
- Pre-tax catastrophe and weather-related losses, net of reinsurance and reinstatement premiums, of \$403 million (\$350 million, after-tax), (Insurance: \$207 million; Reinsurance: \$196 million), or 7.8 points on the current accident year loss ratio, including natural catastrophe and weather-related losses of \$338 million, or 6.5 points, primarily attributable to Hurricane Ian, Winter Storm Elliot, June European Convective Storms, and other weather-related events. The remaining losses included \$43 million, or 0.8 points, attributable to the Russia-Ukraine war, and \$23 million, or 0.4 points, attributable to the COVID-19 pandemic.
- Net favorable prior year reserve development of \$26 million
- Net loss of \$11 million related to loss portfolio transfer reinsurance agreements including adverse prior year reserve development of \$5 million and acquisition costs of \$6 million. Refer to *'Management's Discussion and Analysis of Financial Condition and Results of Operations – Overview – Recent Developments – Loss Portfolio Transfer Reinsurance Agreements'*.
- Underwriting income⁽²⁾ of \$359 million and combined ratio of 95.8%
- Net investment income of \$419 million
- Net investment losses of \$457 million
- Foreign exchange gains of \$158 million
- Reorganization expenses of \$31 million

2022 Consolidated Financial Condition

- Total cash and investments of \$15.6 billion; fixed maturities, short-term investments, and cash and cash equivalents comprise 85% of total cash and investments and have an average credit rating of AA-
- Total assets of \$27.6 billion
- Reserve for losses and loss expenses of \$15.2 billion and reinsurance recoverable on unpaid and paid losses and loss expenses of \$6.4 billion, including \$422 million related to loss portfolio transfer reinsurance agreements. Refer to *'Management's Discussion and Analysis of Financial Condition and Results of Operations – Overview – Recent Developments – Loss Portfolio Transfer Reinsurance Agreements'*.
- Debt of \$1.3 billion and a debt to total capital ratio⁽³⁾ of 22.0%
- Common shares repurchased were 897,000 common shares for a total of \$49 million,
- Common shareholders' equity of \$4.1 billion; book value per diluted common share of \$46.95

(1) Operating income (loss) and operating income (loss) per diluted common share are non-GAAP financial measures as defined in Item 10(e) of SEC Regulation S-K. The reconciliations to the most comparable GAAP financial measures, net income (loss) available (attributable) to common shareholders and earnings (loss) per diluted common share, respectively, and a discussion of the rationale for the presentation of these items are provided in *'Management's Discussion and Analysis of Financial Condition and Results of Operations – Non-GAAP Financial Measures Reconciliation'*.

(2) Consolidated underwriting income (loss) is a non-GAAP financial measure as defined in Item 10(e) of SEC Regulation S-K. The reconciliation to the most comparable GAAP financial measure, net income (loss), is presented in *'Management's Discussion and Analysis of Financial Condition and Results of Operations – Consolidated Results of Operations'*, and a discussion of the rationale for its presentation is provided in *'Management's Discussion and Analysis of Financial Condition and Results of Operations – Non-GAAP Financial Measures Reconciliation'*.

(3) The debt to total capital ratio is calculated by dividing debt by total capital. Total capital represents the sum of total shareholders' equity and debt.

OVERVIEW

Business Overview

AXIS Capital, through its operating subsidiaries, is a global specialty underwriter and provider of insurance and reinsurance solutions with operations in Bermuda, the U.S., Europe, Singapore and Canada. Our underwriting operations are organized around our global underwriting platforms, AXIS Insurance and AXIS Re.

We provide our clients and distribution partners with a broad range of risk transfer products and services, and strong capacity, backed by excellent financial strength. We manage our portfolio holistically, aiming to construct the optimum portfolio of risks, consistent with our risk appetite and the development of our franchise. We nurture an ethical, entrepreneurial, disciplined and diverse culture that promotes outstanding client service, intelligent risk taking, operating efficiency, corporate citizenship and the achievement of superior risk-adjusted returns for our shareholders. We believe that the achievement of our objectives will position us as a global leader in specialty risks. The execution of our business strategy in 2022 included the following:

- increasing our relevance in a select number of attractive specialty lines insurance and treaty reinsurance markets including U.S. excess and surplus lines, North America professional lines and Lloyd's specialty insurance business;
- re-balancing our portfolio towards less volatile lines of business, including the exit from catastrophe and property reinsurance lines in June 2022, that carry attractive returns while deploying capital with risk limits, diversification and risk management;
- investing in attractive growth markets, including the launch of our dedicated Wholesale division in September 2022, and advancing capabilities to address more transactional specialist business (small to mid-sized customers) with our key distribution partners;
- continuing the implementation of a more focused distribution strategy while building mutually beneficial relationships with clients and partners;
- improving the effectiveness and efficiency of our operating platforms and processes;
- investing in data and technology capabilities, and tools to empower our underwriters and enhance the service we provide to our customers;
- utilizing reinsurance markets and third-party capital relationships;
- fostering a positive workplace environment that enables us to attract, retain and develop top talent; and
- growing our corporate citizenship program to give back to our communities and help contribute to a more sustainable future.

For discussion of our results of operations and changes in financial condition for year ended December 31, 2021, compared to year ended December 31, 2020, refer to [Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#) in our 2021 Form 10-K, which was filed with the SEC on February 25, 2022, and such discussions are incorporated herein by reference.

Outlook

We are committed to leadership in specialty insurance and reinsurance, where we have a depth of talent and expertise. We believe our market positioning, underwriting expertise, best-in-class claims management capabilities and strong relationships with our distributors and clients, supported by a conservative and well performing investment portfolio, will provide opportunities for increased profitability, with differences among our lines of business driven by our tactical response to market conditions.

The industry has observed rising loss cost trends and, across most lines, we expect rate improvement to continue as carriers assess the impact of heightened catastrophe loss activity, financial and social inflation, and geopolitical uncertainty, among other factors. In this market environment, we continue to focus on growth in attractive lines of business and market segments that are adequately priced.

Rates, terms and conditions across the majority of insurance lines continued to be favorable as pricing generally continues to rise, albeit at varying levels based on market dynamics relative to the individual lines. Market dislocations continue to drive more risks into the Wholesale channel, and we anticipate this to sustain throughout 2023 with the strongest market opportunities occurring in Specialty and E&S lines. For AXIS, we're continuing to pursue a highly targeted and disciplined underwriting strategy across every line we write and across all our channels of distribution.

The reinsurance market is experiencing material improvements in rates, and terms and conditions. In light of 2022 marking the sixth consecutive year of challenging market loss events, reinsurance carriers are aiming to reduce net volatility and increase profitability. We expect to see opportunity to drive profitable growth among the specialty and casualty reinsurance lines that we offer.

We are encouraged by the pricing improvements we are seeing across most markets, which we expect will carry through 2023, and that rate will continue to keep pace with loss cost trends. Where prices deliver adequate profitability, we will look to grow within our risk and volatility guidelines. With a strengthened book of business, and a growing footprint in specialty markets that are seeing the most favorable conditions, we believe AXIS is well positioned to drive profitable growth within the current environment.

Response to Russia-Ukraine War

Following the Russian invasion of Ukraine and the triggering of sanctions against the countries involved, organizations and named individuals, we established a task-force to coordinate our response to this situation.

The Russia-Ukraine war, and its related impacts, are an emerging and evolving risk to which we are exposed from an underwriting and reserving perspective.

Our team is tracking the situation closely, and is performing stress and scenario testing on existing underwriting exposures. A range of economic impacts and external pressures across individual product lines are being considered.

Underwriting

We are monitoring international sanctions which impact our global operations and were effective March 27, 2022. The impact on gross premiums written for the year ended December 31, 2022 of the cancellation of policies with exposures to the Russia-Ukraine war was immaterial. We continue to evaluate opportunities to write business in the region, not including Russia or Ukraine risks.

We are also closely monitoring cash due from our customers and reinsurers, giving due consideration to the Russia-Ukraine war and associated international sanctions. At December 31, 2022, we considered the potential financial impact of the Russia-Ukraine war when determining allowances for expected credit losses for insurance and reinsurance premium balances receivable and reinsurance recoverable balances on unpaid losses and loss expenses. Based on facts and circumstances at that time, we did not adjust allowances for expected credit losses at December 31, 2022. We will continue to monitor the appropriateness of allowances for expected credit losses as new information comes to light. Adjustments to allowances for expected credit losses in subsequent periods could be material.

Reserving

At December 31, 2022, estimated pre-tax net losses attributable to the Russia-Ukraine war were \$43 million.

The estimate of net reserves for losses and loss expenses related to the Russia-Ukraine war is subject to significant uncertainty. This uncertainty is driven by the difficulty in performing on-site evaluations, and by the inherent difficulty in making assumptions due to the lack of comparable events, the ongoing nature of the event, and its far-reaching impacts.

While we believe the overall estimate of net reserves for losses and loss expenses is adequate for losses and loss adjustment expenses that have been incurred at December 31, 2022, based on current facts and circumstances, we will continue to monitor the appropriateness of our assumptions as new information comes to light and will adjust the estimate of net reserves for losses and loss adjustment expenses, as appropriate. Actual losses for this event may ultimately differ materially from current estimates.

Refer to *'Management's Discussion and Analysis of Financial Condition and Results of Operations – Results by Segment'* for further information.

Investments

At December 31, 2022, we had no direct exposures to Russia or Ukraine within our investments portfolio.

Refer to Item 1A, *'Risk Factors'* in our most recent Annual Report on Form 10-K for further details.

Recent Developments

AXIS Re's exit from Catastrophe and Property lines of business

On June 7, 2022, we announced the decision to exit catastrophe and property reinsurance lines of business. This strategic initiative is part of an overall approach to reduce our exposure to volatile catastrophe risk. Reorganization expenses, mainly related to this strategic initiative for the year ended December 31, 2022 of \$31 million, were attributable to compensation-related costs associated with the termination of certain employees and software asset impairments.

Loss Portfolio Transfer Reinsurance Agreements

On December 9, 2022 (the "transaction date" or "closing date"), we entered into loss portfolio transfer reinsurance agreements with a third-party to reinsure several of our professional lines and liability insurance portfolios, predominantly relating to 2019 and prior accident years.

The transaction covers net reserves for losses and loss expenses of approximately \$400 million and provides ground-up cover to a policy limit of \$605 million.

The transaction was deemed to have met the established criteria for retroactive reinsurance accounting. At the closing date, we recognized a loss of \$17 million as adverse prior year reserve development associated with the transaction. Refer to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses'* for further details.

Under the terms of the loss portfolio transfer reinsurance agreements, the reinsurer also assumed responsibility for the management of certain claims. At the closing date, we recognized income of \$12 million in losses and loss expenses associated with this change in claims management responsibility.

We also recognized acquisition costs of \$6 million associated with the transaction.

In subsequent periods, we will reassess the reserves for losses and loss expenses subject to the loss portfolio transfer reinsurance agreements.

Any adverse prior year reserve development associated with the subject business will result in the cumulative amounts ceded to the reinsurer exceeding the consideration paid which will result in a gain determined in accordance with retroactive reinsurance accounting. Consistent with our accounting policy, (refer to Item 8, Note 2 to the Consolidated Financial Statements *'Basis of Presentation and Significant Accounting Policies'* for further details), gains will be deferred and amortized into net income over the claims settlement period.

Although retroactive reinsurance accounting may result in volatility to our results in the short-term, the loss portfolio transfer reinsurance agreements will protect us from prior year reserve development on the subject business over the contract term, provided this remains within the limit of the agreements.

Transition in our senior leadership

On December 16, 2022, our Board of Directors appointed Vincent Tizzio to succeed Albert Benchimol as Chief Executive Officer, President and as a Class III director, effective at the close of business on the date of the Company's annual general meeting currently scheduled for May 4, 2023.

CONSOLIDATED RESULTS OF OPERATIONS

Year ended December 31,	2022	% Change	2021	% Change	2020
Underwriting revenues:					
Gross premiums written	\$8,214,595	7%	\$7,685,984	13%	\$6,826,938
Net premiums written	5,263,056	7%	4,926,624	14%	4,336,409
Net premiums earned	5,160,326	10%	4,709,850	8%	4,371,309
Other insurance related income (loss)	13,073	(44%)	23,295	nm	(8,089)
Underwriting expenses:					
Net losses and loss expenses	(3,242,410)	8%	(3,008,783)	(8%)	(3,281,252)
Acquisition costs	(1,022,017)	11%	(921,834)	(1%)	(929,517)
Underwriting-related general and administrative expenses ⁽¹⁾	(550,289)	3%	(536,834)	12%	(477,968)
Underwriting income (loss)⁽²⁾	358,683		265,694		(325,517)
Net investment income	418,829	(8%)	454,301	30%	349,601
Net investment gains (losses)	(456,789)	nm	134,279	4%	129,133
Corporate expenses ⁽¹⁾	(130,054)	3%	(126,470)	24%	(101,822)
Foreign exchange (losses) gains	157,945	nm	(315)	nm	(81,069)
Interest expense and financing costs	(63,146)	1%	(62,302)	(17%)	(75,049)
Reorganization expenses	(31,426)	nm	—	nm	(7,881)
Amortization of value of business acquired	—	nm	(3,854)	(25%)	(5,139)
Amortization of intangible assets	(10,917)	(12%)	(12,424)	9%	(11,390)
Income (loss) before income taxes and interest in income (loss) of equity method investments	243,125		648,909		(129,133)
Income tax (expense) benefit	(22,037)	(65%)	(62,384)	nm	12,321
Interest in income (loss) of equity method investments	1,995	(94%)	32,084	nm	(3,612)
Net income (loss)	223,083		618,609		(120,424)
Preferred share dividends	(30,250)	—%	(30,250)	—%	(30,250)
Net income (loss) available (attributable) to common shareholders	\$ 192,833		\$ 588,359		\$ (150,674)

nm – not meaningful is defined as a variance greater than +/-100%

- (1) Underwriting-related general and administrative expenses is a non-GAAP financial measure as defined in Item 10(e) of SEC Regulation S-K. The reconciliation to general and administrative expenses, the most comparable GAAP financial measure, also included corporate expenses of \$130 million, \$126 million, and \$102 million for 2022, 2021, and 2020, respectively. Refer to 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Other Expenses (Revenues), Net' for further details on corporate expenses. Refer also to 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Non-GAAP Financial Measures Reconciliation' for further details.
- (2) Consolidated underwriting income (loss) is a non-GAAP financial measure as defined in Item 10(e) of SEC Regulation S-K. The reconciliation to net income (loss), the most comparable GAAP financial measure, is presented in the table above. Refer also to 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Non-GAAP Financial Measures Reconciliation' for further details.

Underwriting Revenues

Underwriting revenues by segment were as follows:

Year ended December 31,	2022	% Change	2021	% Change	2020
Gross premiums written:					
Insurance	\$ 5,585,581	15%	\$ 4,863,232	21%	\$ 4,018,399
Reinsurance	2,629,014	(7%)	2,822,752	1%	2,808,539
Total gross premiums written	\$ 8,214,595	7%	\$ 7,685,984	13%	\$ 6,826,938
Percent of gross premiums written ceded:					
Insurance	40%	— pt	40%	(1 pt)	41%
Reinsurance	28%	— pt	28%	(2 pts)	30%
Total percent of gross premiums written ceded	36%	— pt	36%	— pt	36%
Net premiums written:					
Insurance	\$ 3,377,906	17%	\$ 2,894,885	23%	\$ 2,357,501
Reinsurance	1,885,150	(7%)	2,031,739	3%	1,978,908
Total net premiums written	\$ 5,263,056	7%	\$ 4,926,624	14%	\$ 4,336,409
Net premiums earned:					
Insurance	\$ 3,134,155	18%	\$ 2,651,339	15%	\$ 2,299,038
Reinsurance	2,026,171	(2%)	2,058,511	(1%)	2,072,271
Total net premiums earned	\$ 5,160,326	10%	\$ 4,709,850	8%	\$ 4,371,309

Refer to 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Results by Segment' for further details on underwriting revenues.

Combined Ratio

The components of the combined ratio were as follows:

Year ended December 31,	2022	% Point Change	2021	% Point Change	2020
Current accident year loss ratio, excluding catastrophe and weather-related losses	55.5%	0.4	55.1%	(2.6)	57.7%
Catastrophe and weather-related losses ratio	7.8%	(1.7)	9.5%	(8.2)	17.7%
Current accident year loss ratio	63.3%	(1.3)	64.6%	(10.8)	75.4%
Prior year reserve development ratio	(0.5%)	0.2	(0.7%)	(0.4)	(0.3%)
Net losses and loss expenses ratio	62.8%	(1.1)	63.9%	(11.2)	75.1%
Acquisition cost ratio	19.8%	0.2	19.6%	(1.7)	21.3%
General and administrative expense ratio ⁽¹⁾	13.2%	(0.8)	14.0%	0.8	13.2%
Combined ratio	95.8%	(1.7)	97.5%	(12.1)	109.6%

(1) The general and administration expense ratio included corporate expenses not allocated to underwriting segments of 2.5%, 2.7% and 2.3% for 2022, 2021 and 2020, respectively. Refer to 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Other Expenses (Revenues), Net' for further details.

Refer to 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Results by Segment' for further details on underwriting expenses.

RESULTS BY SEGMENT

Insurance Segment

Results for the insurance segment were as follows:

Year ended December 31,	2022	% Change	2021	% Change	2020
Revenues:					
Gross premiums written	\$ 5,585,581	15%	\$ 4,863,232	21%	\$ 4,018,399
Net premiums written	3,377,906	17%	2,894,885	23%	2,357,501
Net premiums earned	3,134,155	18%	2,651,339	15%	2,299,038
Other insurance related income	559	(66%)	1,662	(37%)	2,647
Expenses:					
Current accident year net losses and loss expenses	(1,802,204)		(1,533,358)		(1,705,951)
Prior year reserve development	16,350		18,360		8,937
Acquisition costs	(577,838)		(484,344)		(461,533)
Underwriting-related general and administrative expenses	(443,704)		(429,282)		(378,839)
Underwriting income (loss)	\$ 327,318		\$ 224,377		\$ (235,701)
Ratios:					
		% Point Change		% Point Change	
Current accident year loss ratio, excluding catastrophe and weather-related losses	51.0%	(0.4)	51.4%	(3.7)	55.1%
Catastrophe and weather-related losses ratio	6.5%	0.1	6.4%	(12.7)	19.1%
Current accident year loss ratio	57.5%	(0.3)	57.8%	(16.4)	74.2%
Prior year reserve development ratio	(0.5%)	0.2	(0.7%)	(0.3)	(0.4%)
Net losses and loss expenses ratio	57.0%	(0.1)	57.1%	(16.7)	73.8%
Acquisition cost ratio	18.4%	0.1	18.3%	(1.8)	20.1%
Underwriting-related general and administrative expense ratio	14.2%	(2.0)	16.2%	(0.3)	16.5%
Combined ratio	89.6%	(2.0)	91.6%	(18.8)	110.4%

Gross Premiums Written

Gross premiums written by line of business were as follows:

Year ended December 31,	2022		2021		2020		% Change	
							2021 to 2022	2020 to 2021
Professional lines	\$ 1,322,966	24%	\$ 1,290,767	26%	\$ 944,856	23%	2%	37%
Property	1,357,489	24%	1,192,981	25%	1,053,541	26%	14%	13%
Liability	1,138,645	20%	930,999	19%	764,407	19%	22%	22%
Cyber	644,746	12%	525,349	11%	433,519	11%	23%	21%
Marine and aviation	652,687	12%	580,635	12%	507,076	13%	12%	15%
Accident and health	258,399	5%	178,899	4%	158,586	4%	44%	13%
Credit and political risk	210,649	3%	163,602	3%	156,414	4%	29%	5%
Total	\$ 5,585,581	100%	\$ 4,863,232	100%	\$ 4,018,399	100%	15%	21%

Gross premiums written in 2022 increased by \$722 million, or 15% (\$804 million, or 17%, on a constant currency basis⁽¹⁾), compared to 2021 attributable to all lines of business.

The increases in liability, property, marine and aviation lines, and professional lines were due to favorable rate changes and new business. The increase in cyber lines was due to favorable rate changes. The increases in accident and health, and credit and political risk were due to new business.

Ceded Premiums Written

Ceded premiums written in 2022 were \$2,208 million, or 40% of gross premiums written, compared to \$1,968 million, or 40% in 2021. The increase in ceded premiums written of \$239 million, or 12% was primarily driven by increases in liability, property, cyber, and credit and political risk lines, partially offset by decreases in professional lines and accident and health lines.

The increases in liability, property, cyber, and credit and political risk lines reflected the increase in gross premiums written in 2022, compared to 2021. The increase in property lines was also attributable to a new quota share treaty and to the restructuring of a significant existing quota share treaty. The decrease in professional lines was due to the restructuring of a significant existing quota share treaty. The decrease in accident and health lines was due to new business written in 2022 which was fully retained.

(1) Amounts presented on a constant currency basis are non-GAAP financial measures as defined in Item 10 (e) of SEC Regulation S-K. The constant currency basis is calculated by applying the average foreign exchange rate from the current year to the prior year balance.

Net Premiums Earned

Net premiums earned by line of business were as follows:

Year ended December 31,	2022		2021		2020		% Change	
							2021 to 2022	2020 to 2021
Professional lines	\$ 817,924	26%	\$ 646,390	23%	\$ 509,448	22%	27%	27%
Property	755,986	24%	711,297	27%	653,186	28%	6%	9%
Liability	459,775	15%	354,787	13%	315,434	14%	30%	12%
Cyber	309,004	10%	252,077	10%	206,720	9%	23%	22%
Marine and aviation	479,499	15%	439,050	17%	364,656	16%	9%	20%
Accident and health	209,548	7%	151,133	6%	143,725	6%	39%	5%
Credit and political risk	102,419	3%	96,605	4%	105,869	5%	6%	(9%)
Total	\$ 3,134,155	100%	\$ 2,651,339	100%	\$ 2,299,038	100%	18%	15%

Net premiums earned in 2022 increased by \$483 million, or 18% (\$532 million, or 20%, on a constant currency basis), compared to 2021. The increase was primarily driven by increases in gross premiums earned in liability, professional lines, cyber, property, accident and health, and marine and aviation lines, partially offset by increases in ceded premiums earned in liability, property, cyber, and professional lines.

Loss Ratio

The components of the loss ratio were as follows:

Year ended December 31,	2022	% Point Change	2021	% Point Change	2020
Current accident year loss ratio	57.5%	(0.3)	57.8%	(16.4)	74.2%
Prior year reserve development ratio	(0.5%)	0.2	(0.7%)	(0.3)	(0.4%)
Loss ratio	57.0%	(0.1)	57.1%	(16.7)	73.8%

Current Accident Year Loss Ratio

The current accident year loss ratio decreased to 57.5% in 2022 from 57.8% in 2021.

During 2022, catastrophe and weather-related losses, net of reinstatement premiums, were \$207 million, or 6.5 points, including natural catastrophe and weather-related losses of \$177 million, or 5.6 points, primarily attributable to Hurricane Ian, Winter Storm Elliot, Eastern Australia floods, South Africa floods, and other weather-related events. The remaining losses of \$29 million, or 0.9 points, were attributable to the Russia-Ukraine war.

Comparatively, in 2021, catastrophe and weather-related losses, net of reinstatement premiums, were \$175 million, or 6.4 points, primarily attributable to Hurricane Ida, Winter Storms Uri and Viola, and other weather-related events.

After adjusting for the impact of the catastrophe and weather-related losses, the current accident year loss ratio decreased to 51.0% in 2022 from 51.4% in 2021. The decrease in the current accident year loss ratio, after adjusting for the impact of the catastrophe and weather-related losses was principally due to the impact of favorable pricing over loss trends, partially offset by changes in business mix.

Prior Year Reserve Development

Refer to Item 8, Note 8 to the Consolidated Financial Statements 'Reserve for Losses and Loss Expenses' for details on the lines of business, the expected claim tails, and prior year development.

Acquisition Cost Ratio

The acquisition cost ratio increased to 18.4% in 2022 from 18.3% in 2021, respectively, principally related to an increase in profit commission costs and fees associated with the loss portfolio transfer reinsurance agreements (refer to *Management's Discussion and Analysis of Financial Condition and Results of Operations – Overview – Recent Developments – Loss Portfolio Transfer Reinsurance Agreements* for further details), largely offset by changes in business mix attributable to the decrease in program business in property lines written in recent periods, and an increase in ceding commissions mainly in liability lines.

Underwriting-Related General and Administrative Expense Ratio

The underwriting-related general and administrative expense ratio decreased to 14.2% in 2022 from 16.2% in 2021, mainly driven by an increase in net premiums earned, partially offset by an increase in personnel costs and travel costs.

Reinsurance Segment

Results for the reinsurance segment were as follows:

Year ended December 31,	2022	% Change	2021	% Change	2020
Revenues:					
Gross premiums written	\$ 2,629,014	(7%)	\$ 2,822,752	1%	\$ 2,808,539
Net premiums written	1,885,150	(7%)	2,031,739	3%	1,978,908
Net premiums earned	2,026,171	(2%)	2,058,511	(1%)	2,072,271
Other insurance related income (loss)	12,514	(42%)	21,633	nm	(10,736)
Expenses:					
Current accident year net losses and loss expenses	(1,465,739)		(1,507,835)		(1,591,210)
Prior year reserve development	9,183		14,049		6,972
Acquisition costs	(444,179)		(437,490)		(467,984)
Underwriting-related general and administrative expenses	(106,585)		(107,552)		(99,129)
Underwriting income (loss)	\$ 31,365		\$ 41,317		\$ (89,816)
Ratios:					
		% Point Change		% Point Change	
Current accident year loss ratio, excluding catastrophe and weather-related losses	62.6%	2.7	59.9%	(0.7)	60.6%
Catastrophe and weather-related losses ratio	9.7%	(3.6)	13.3%	(2.9)	16.2%
Current accident year loss ratio	72.3%	(0.9)	73.2%	(3.6)	76.8%
Prior year reserve development ratio	(0.4%)	0.2	(0.6%)	(0.2)	(0.4%)
Net losses and loss expenses ratio	71.9%	(0.7)	72.6%	(3.8)	76.4%
Acquisition cost ratio	21.9%	0.6	21.3%	(1.3)	22.6%
Underwriting-related general and administrative expense ratio	5.3%	0.2	5.1%	0.3	4.8%
Combined ratio	99.1%	0.1	99.0%	(4.8)	103.8%

nm – not meaningful

Gross Premiums Written:

Gross premiums written by line of business were as follows:

Year ended December 31,	2022		2021		2020		% Change	
							2021 to 2022	2020 to 2021
Liability	\$ 719,831	27%	\$ 722,931	26%	\$ 619,998	22%	—%	17%
Accident and health	411,891	16%	398,641	14%	371,828	13%	3%	7%
Professional lines	400,807	15%	353,671	13%	312,935	11%	13%	13%
Credit and surety	298,565	11%	208,108	7%	232,699	8%	43%	(11%)
Motor	239,794	9%	279,966	10%	304,601	11%	(14%)	(8%)
Agriculture	128,012	5%	86,128	3%	70,500	3%	49%	22%
Marine and aviation	93,371	4%	73,968	3%	73,102	3%	26%	1%
<u>Run-off lines</u>								
Catastrophe	222,810	9%	492,397	16%	551,144	19%	(55%)	(11%)
Property	103,492	4%	213,406	8%	245,846	9%	(52%)	(13%)
Engineering	10,441	—%	(6,464)	—%	25,886	1%	nm	nm
<u>Total run-off lines</u>	<u>336,743</u>	<u>13%</u>	<u>699,339</u>	<u>24%</u>	<u>822,876</u>	<u>29%</u>	<u>(52%)</u>	<u>(15%)</u>
Total	\$ 2,629,014	100%	\$ 2,822,752	100%	\$ 2,808,539	100%	(7%)	1%

nm – not meaningful

Gross premiums written in 2022 decreased by \$194 million, or 7% (\$140 million, or 5%, on a constant currency basis), compared to 2021. The decrease was primarily attributable to catastrophe, property, motor, and liability lines, partially offset by increases in credit and surety, professional lines, agriculture, marine and aviation, engineering, and accident and health lines.

The decreases in catastrophe and property lines were largely driven by non-renewals and decreased line sizes associated with repositioning the portfolio during the six months ended June 2022, together with the exit from these lines of business in June 2022. The decrease in catastrophe lines was also due to a lower level of reinstatement premiums related to catastrophe losses in 2022, compared to 2021.

The decrease in motor lines was largely driven by non-renewals and decreased line sizes associated with repositioning the portfolio. In addition, the decrease in motor lines was attributable to the impact of foreign exchange rate movements, and the timing of the renewal of a significant contract, partially offset by a lower level of negative premium adjustments in 2022, compared to 2021 due to significant adjustments attributable to the COVID-19 pandemic recognized in 2021.

The decrease in liability lines was due to a lower level of premium adjustments associated with favorable market conditions in 2022, compared to 2021, largely offset by an increase in renewals due to favorable market conditions, and new business.

The increases in credit and surety, agriculture, professional lines, and accident and health lines were driven by new business.

The increases in credit and surety, and accident and health lines were also due to premium adjustments related to significant contracts.

The increase in professional lines was also due to a higher level of premium adjustments associated with favorable market conditions in 2022, compared to 2021. In addition, an increase in renewals associated with favorable market conditions and increased line sizes on several contracts contributed to the increase in professional lines in 2022, compared to 2021.

The increase in engineering lines was due to premium adjustments related to a significant contract.

The increase in marine and aviation lines was attributable to new business and premium adjustments.

Ceded Premiums Written

Ceded premiums written in 2022 were \$744 million, or 28%, of gross premiums written, compared to \$791 million, or 28%, in 2021. The decrease in ceded premiums written of \$47 million, or 6%, was primarily driven by a decrease in catastrophe lines, partially offset by increases in professional lines, motor, and credit and surety lines.

The decrease in catastrophe lines reflected the decrease in gross premiums written in 2022, compared to 2021.

The increase in professional lines was due to the increase in gross premiums written in 2022, compared to 2021, premiums ceded to new quota share retrocessional treaties with a strategic capital partner and the restructuring of significant quota share retrocessional treaties.

The increase in motor lines was associated with the restructuring of significant quota share retrocessional treaties, partially offset by the decrease in gross premiums written in 2022, compared to 2021.

The increase in credit and surety lines was attributable to the increase in gross premiums written in 2022, compared to 2021, premium adjustments and the restructuring of a significant quota share retrocessional treaty.

Net Premiums Earned

Net premiums earned by line of business were as follows:

Year ended December 31,	2022		2021		2020		% Change	
							2021 to 2022	2020 to 2021
Liability	\$ 484,681	24%	\$ 431,596	21%	\$ 397,894	19%	12%	8%
Accident and health	368,747	18%	361,196	18%	333,997	16%	2%	8%
Professional lines	250,911	12%	220,448	11%	207,605	10%	14%	6%
Credit and surety	192,926	10%	158,549	8%	187,722	9%	22%	(16%)
Motor	205,774	10%	247,099	12%	256,064	12%	(17%)	(4%)
Agriculture	122,289	6%	82,743	4%	73,697	4%	48%	12%
Marine and aviation	78,504	4%	58,775	3%	53,513	3%	34%	10%
<u>Run-off lines</u>								
Catastrophe	156,232	7%	238,775	11%	244,934	12%	(35%)	(3%)
Property	135,480	7%	231,092	11%	256,324	12%	(41%)	(10%)
Engineering	30,627	2%	28,238	1%	60,521	3%	8%	(53%)
<u>Total run-off lines</u>	<u>322,339</u>	<u>16 %</u>	<u>498,105</u>	<u>23 %</u>	<u>561,779</u>	<u>27 %</u>	<u>(35%)</u>	<u>(11%)</u>
Total	\$ 2,026,171	100%	\$ 2,058,511	100%	\$ 2,072,271	100%	(2%)	(1%)

Net premiums earned in 2022 decreased by \$32 million, or 2%, (increased by \$54 million, or 3%, on a constant currency basis), compared to 2021. The decrease was primarily driven by decreases in gross premiums earned in catastrophe, property, and motor lines, together with increases in ceded premiums earned in professional lines, motor, and credit and surety lines. These decreases were partially offset by increases in gross premiums earned in liability, professional lines, credit and surety, agriculture, and marine and aviation lines and decreases in ceded premiums earned in catastrophe lines.

Other Insurance Related Income (Loss)

Other insurance related income of \$13 million in 2022, compared to other insurance related income of \$22 million in 2021, a decrease of \$9 million, primarily due to a decrease in fees related to arrangements with strategic capital partners.

Loss Ratio

The components of the loss ratio were as follows:

Year ended December 31,	2022	% Point Change	2021	% Point Change	2020
Current accident year loss ratio	72.3%	(0.9)	73.2%	(3.6)	76.8%
Prior year reserve development ratio	(0.4%)	0.2	(0.6%)	(0.2)	(0.4%)
Loss ratio	71.9%	(0.7)	72.6%	(3.8)	76.4%

Current Accident Year Loss Ratio

The current accident year loss ratio decreased to 72.3% in 2022 from 73.2% in 2021. The decrease in the current accident year loss ratio was impacted by a lower level of catastrophe and weather-related losses.

During 2022, catastrophe and weather-related losses, net of reinstatement premiums, were \$196 million, or 9.7 points, including natural catastrophe and weather-related losses of \$160 million, or 8.0 points, primarily attributable to Hurricane Ian, June European Convective Storms, Eastern Australia floods, South Africa floods, Winter Storm Elliot, and other weather-related events. The remaining losses included \$23 million, or 1.1 points, attributable to the COVID-19 pandemic, and \$13 million, or 0.6 points, attributable to the Russia-Ukraine war.

Comparatively, in 2021, catastrophe and weather-related losses, net of reinstatement premiums, were \$268 million or 13.3 points, primarily attributable to Hurricane Ida, July European Floods, Winter Storms Uri and Viola, June European Convective Storms, December Convective Storms that principally impacted the U.S. Southwest and the Upper Midwest, Quad-state tornadoes, and other weather-related events.

After adjusting for the impact of the catastrophe and weather-related losses, the current accident year loss ratio increased to 62.6% in 2022 from 59.9% in 2021, principally due to changes in business mix associated with the exit from catastrophe and property lines of business in June 2022.

Prior Year Reserve Development

Refer to Item 8, Note 8 to the Consolidated Financial Statements '*Reserve for Losses and Loss Expenses*' for details on the lines of business, the expected claim tails, and prior year development.

Acquisition Cost Ratio

The acquisition cost ratio increased to 21.9% in 2022 from 21.3% in 2021, principally related to changes in business mix driven by the decrease in property catastrophe business written in recent periods and the increase in liability, professional lines, and credit and surety lines of business written in recent periods, together with higher costs associated with professional lines business mainly due to more proportional business being written in the recent periods, partially offset by the impact of retrocessional contracts.

Underwriting-Related General and Administrative Expense Ratio

The underwriting-related general and administrative expense ratio increased to 5.3% in 2022 from 5.1% in 2021, mainly driven by a decrease in net premiums earned and a decrease in fees related to arrangements with strategic capital partners, largely offset by a decrease in personnel costs and performance-related compensation costs.

NET INVESTMENT INCOME AND NET INVESTMENT GAINS (LOSSES)

Net Investment Income

Net investment income from our cash and investment portfolio by major asset class was as follows:

Year ended December 31,	2022	% Change	2021	% Change	2020
Fixed maturities	\$ 329,858	26%	\$ 262,049	(17%)	\$ 317,121
Other investments	57,043	(69%)	181,906	nm	16,059
Equity securities	10,390	(19%)	12,752	37%	9,328
Mortgage loans	23,407	34%	17,427	13%	15,432
Cash and cash equivalents	20,273	nm	4,454	(67%)	13,582
Short-term investments	3,535	nm	664	(76%)	2,749
Gross investment income	444,506	(7%)	479,252	28%	374,271
Investment expense	(25,677)	3%	(24,951)	1%	(24,670)
Net investment income	\$ 418,829	(8%)	\$ 454,301	30%	\$ 349,601
Pre-tax yield:⁽¹⁾					
Fixed maturities	<u>2.6%</u>		<u>2.2%</u>		<u>2.6%</u>

nm – not meaningful

(1) Pre-tax yield is calculated by dividing net investment income by the average month-end amortized cost balances.

Fixed Maturities

2022 versus 2021: Net investment income in 2022 increased by \$68 million or 26%, compared to 2021 due to an increase in yields.

Other Investments

Other investments include hedge funds, direct lending funds, private equity funds, real estate funds, other privately held investments and an indirect investment in CLO-Equities. These investments are recorded at fair value, with changes in fair value and income distributions reported in net investment income. Consequently, the pre-tax return on other investments may vary materially year over year, particularly during volatile equity and credit markets.

Net investment income from other investments was as follows:

Year ended December 31,	2022	2021	2020
Hedge, direct lending, private equity and real estate funds	\$ 39,151	\$ 133,923	\$ 16,267
Other privately held investments	14,931	44,482	5,809
CLO-Equities	2,961	3,501	(6,017)
Total net investment income from other investments⁽¹⁾	\$ 57,043	\$ 181,906	\$ 16,059
Pre-tax return on other investments⁽²⁾	5.9%	21.4%	2.2%

(1) Excluded overseas deposits in 2020. Overseas deposits in 2020 included investments in private funds held by Syndicate 2007 where the underlying investments were primarily U.S. government, non-U.S. government and corporate debt securities.

(2) The pre-tax return on other investments is calculated by dividing total net investment income from other investments by the average month-end fair value balances held for the periods indicated, excluding overseas deposits.

2022 versus 2021: Pre-tax return on other investments in 2022 decreased to 5.9%, compared to 21.4% in 2021. The decrease was primarily attributable to lower returns from hedge, direct lending and private equity funds and other privately held investments.

Net Investment Gains (Losses)

Fixed maturities classified as available for sale are reported at fair value. Realized gains (losses) on fixed maturities are reported in net investment gains (losses) when these securities are sold or impaired.

Equity securities are reported at fair value. Realized gains (losses) on equity securities are also reported in net investment gains (losses) when securities are sold or impaired. In addition, changes in the fair values of equity securities are reported in net investment gains (losses).

Changes in the fair value of investment derivatives, mainly foreign exchange forward contracts are recorded in net investment gains (losses).

Net investment gains (losses) were as follows:

Year ended December 31,	2022	2021	2020
<i>On sale of investments:</i>			
Fixed maturities and short-term investments	\$ (311,822)	\$ 95,116	\$ 92,119
Equity securities	7,281	4,717	19,808
	<u>(304,541)</u>	<u>99,833</u>	<u>111,927</u>
Change in allowance for expected credit losses	(11,421)	11	(323)
Impairment losses ⁽¹⁾	(12,568)	(22)	(1,486)
Change in fair value of investment derivatives	7,656	4,346	(2,434)
Net unrealized gains (losses) on equity securities	<u>(135,915)</u>	<u>30,111</u>	<u>21,449</u>
Net investment gains (losses)	\$ (456,789)	\$ 134,279	\$ 129,133

(1) Related to instances where we intend to sell securities, or it is more likely than not that we will be required to sell securities before their anticipated recovery.

2022 versus 2021: Net investment losses in 2022 were \$457 million compared to net investment gains of \$134 million in 2021. Net investment losses reported in 2022 mainly reflected net realized losses on the sale of corporate debt, U.S. government and Agency RMBS and net unrealized losses on equity securities. Net investment gains reported in 2021 mainly reflected net realized gains on the sale of corporate debt, non-U.S. government and CMBS and net unrealized gains on equity securities.

On Sale of Investments

Generally, sales of individual securities occur when there are changes in the relative value, credit quality, or duration of a particular issue. We may also sell securities to re-balance our investment portfolio in order to change exposure to particular asset classes or sectors.

Impairment Losses

The impairment losses (refer to 'Critical Accounting Estimates – Impairment losses' for further details) recognized in net income were as follows:

2022 versus 2021: Impairment losses in 2022 were \$13 million compared to impairment losses of \$nil in 2021. The impairment losses in 2022 were principally due to impairments of non-investment grade corporate debt securities that we intended to sell or where we determined that it was more likely than not that we were required to sell securities before their anticipated recovery.

Change in Fair Value of Investment Derivatives

From time to time, we economically hedge foreign exchange exposure with derivative contracts.

During 2022, foreign exchange hedges resulted in \$8 million of net gains which primarily related to securities denominated in pound sterling and euro which experienced volatility during 2022.

During 2021, foreign exchange hedges resulted in \$4 million of net gains which primarily related to securities denominated in euro which experienced volatility during 2021.

Our derivative instruments are not designated as hedges. Therefore, net unrealized gains (losses) on the hedged securities were recorded in accumulated other comprehensive income (loss) in the statement of changes in shareholders' equity.

Total Return

Our investment strategy is to take a long-term view by actively managing our investment portfolio to maximize total return within certain guidelines and constraints. In assessing returns under this approach, we include net investment income, net investment gains (losses), the change in unrealized gains (losses) on fixed maturities, and interest in income (loss) of equity method investments generated by our investment portfolio.

Total return on cash and investments was as follows:

Year ended December 31,	2022	2021	2020
Net investment income	\$ 418,829	\$ 454,301	\$ 349,601
Net investments gains (losses)	(456,789)	134,279	129,133
Change in net unrealized gains (losses) on fixed maturities ⁽¹⁾	(909,150)	(405,378)	269,937
Interest in income (loss) of equity method investments	1,995	32,084	(3,612)
Total	\$ (945,115)	\$ 215,286	\$ 745,059
Average cash and investments⁽²⁾	\$ 15,963,535	\$ 16,107,523	\$ 15,562,097
Total return on average cash and investments, pre-tax:			
Including investment related foreign exchange movements	(5.9%)	1.3%	4.8%
Excluding investment related foreign exchange movements ⁽³⁾	(5.2%)	1.6%	4.4%

- (1) Change in net unrealized gains (losses) on fixed maturities is calculated by taking net unrealized gains (losses) at period end less net unrealized gains (losses) at the prior period end.
- (2) The average cash and investments is calculated by taking the average of the period end fair value balances.
- (3) Pre-tax total return on cash and investments excluding foreign exchange rate movements is a non-GAAP financial measure as defined in Item 10(e) of SEC Regulation S-K. The reconciliation to pre-tax total return on cash and investments, the most comparable GAAP financial measure, included foreign exchange gains (losses) of \$(110) million, \$(40) million and \$55 million for the years ended December 31, 2022, 2021 and 2020, respectively.

OTHER EXPENSES (REVENUES), NET

The following table provides a summary of other expenses (revenues), net:

Year ended December 31,	2022	% Change	2021	% Change	2020
Corporate expenses	\$ 130,054	3%	\$ 126,470	24%	\$ 101,822
Foreign exchange losses (gains)	(157,945)	nm	315	nm	81,069
Interest expense and financing costs	63,146	1%	62,302	(17%)	75,049
Income tax expense (benefit)	22,037	(65%)	62,384	nm	(12,321)
Total	\$ 57,292		\$ 251,471		\$ 245,619

nm – not meaningful

Corporate Expenses

Corporate expenses include holding company costs necessary to support our worldwide insurance and reinsurance operations and costs associated with operating as a publicly-traded company. As a percentage of net premiums earned, corporate expenses decreased to 2.5% in 2022 from 2.7% in 2021.

The increase in corporate expenses in 2022 was mainly driven by executive-related compensation cost of \$15 million associated with the transition in our senior leadership and an increase in personnel costs, largely offset by decreases in performance-related compensation costs, business fees, and professional services costs.

Foreign Exchange Losses (Gains)

Some of our business is written in currencies other than the U.S. dollar.

Foreign exchange gains in 2022 were primarily related to the impact of the strengthening of the U.S. dollar on the remeasurement of net insurance-related liabilities denominated in pound sterling and euro.

Foreign exchange losses in 2021 were primarily related to the impact of the weakening of the U.S. dollar on the remeasurement of net insurance-related liabilities denominated in pound sterling, Australian dollar and other currencies, largely offset by the strengthening of the U.S. dollar on the remeasurement of net insurance-related liabilities denominated in euro and Japanese yen.

Interest Expense and Financing Costs

Interest expense and financing costs are related to interest due on the 5.150% senior unsecured notes ("5.150% Senior Notes") issued in 2014, the 4.000% senior unsecured notes ("4.000% Senior Notes") issued in 2017, the 3.900% senior unsecured notes ("3.900% Senior Notes"), and the 4.900% fixed-rate reset junior subordinated notes ("Junior Subordinated Notes") issued in 2019, and the Federal Home Loan advances ("FHLB advances") received in 2022.

Interest expense and financing costs increased by \$1 million in 2022, compared to 2021, due to the FHLB advances in 2022.

Income Tax Expense (Benefit)

Income tax expense (benefit) primarily results from income (loss) generated by our foreign operations in the U.S. and Europe. Our effective tax rate, which is calculated as income tax expense (benefit) divided by income (loss) before tax including interest in income (loss) of equity method investments, was 9.0%, 9.2%, and 9.3% in 2022, 2021, and 2020, respectively. This effective rate can vary between years depending on the distribution of net income (loss) among tax jurisdictions, as well as other factors.

The tax expense of \$22 million in 2022 was principally due to the generation of pre-tax income in our U.K., U.S. and European insurance operations, together with a valuation allowance on certain deferred tax assets, partially offset by the re-estimation of the amount of net deferred tax assets that would be realized at the 25% tax rate in the U.K. that takes effect in 2023.

In 2022, the valuation allowance increased by \$43 million. The net loss incurred by AXIS Re SE, the Irish reinsurance company, resulted in the recognition of a valuation allowance of \$41 million against the net deferred tax assets of AXIS Re SE and AXIS Re Europe, the Swiss branch of the Irish reinsurance company, of which \$22 million was recorded in net income (loss) and \$19 million was recorded in other comprehensive income (loss). A partial valuation allowance of \$2 million was also recorded against U.S. foreign tax credits.

At December 31, 2022, the U.S. operations had a deferred tax asset of \$71 million for the unrealized losses on its fixed maturity securities that were recorded in other comprehensive income (loss). We examined the need for a valuation allowance and after considering all positive and negative evidence concluded a valuation allowance against its net unrealized investment losses in the U.S. was not required.

The tax expense of \$62 million in 2021 was principally due to the generation of pre-tax income in our U.S., U.K. and European operations.

FINANCIAL MEASURES

We believe that the following financial indicators are important in evaluating performance and measuring the overall growth in value generated for common shareholders:

Year ended and at December 31,	2022	2021	2020
Return on average common equity ⁽¹⁾	4.3%	12.2%	(3.2%)
Operating return on average common equity ⁽²⁾	11.1%	9.1%	(3.7%)
Book value per diluted common share ⁽³⁾	\$ 46.95	\$ 55.78	\$ 55.09
Cash dividends declared per common share	\$ 1.73	\$ 1.69	\$ 1.65
Increase (decrease) in book value per diluted common share adjusted for dividends	\$ (7.10)	\$ 2.38	\$ 0.95

- (1) Return on average common equity ("ROACE") is calculated by dividing net income (loss) available (attributable) to common shareholders for the year by the average common shareholders' equity determined using the common shareholders' equity balances at the beginning and end of the year.
- (2) Operating return on average common equity ("operating ROACE"), is a non-GAAP financial measure as defined in Item 10(e) of SEC Regulation S-K. The reconciliation to the most comparable GAAP financial measure, ROACE, and a discussion of the rationale for its presentation is provided in 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Non-GAAP Financial Measures Reconciliation'.
- (3) Book value per diluted common share represents common shareholders' equity divided by the number of diluted common share outstanding, determined using the treasury stock method. Cash-settled restricted stock units are excluded.

Return on Average Common Equity

Our objective is to generate superior returns on capital that appropriately reward common shareholders for the risks we assume and to grow revenue only when we expect the returns will meet or exceed our requirements. We recognize that the nature of underwriting cycles and the frequency or severity of large loss events in any one year may challenge the ability to achieve a profitability target in any specific period.

ROACE reflects the impact of net income (loss) available (attributable) to common shareholders, including net investment gains (losses), foreign exchange losses (gains), reorganization expenses, and interest in income (loss) of equity method investments.

The decrease in ROACE in 2022, compared to 2021, was primarily driven by net investment losses, a decrease in net investment income, reorganization expenses, and a decrease in interest in income (loss) of equity method investments, partially offset by foreign exchange gains, an increase in underwriting income, and a decrease in income tax expense. In addition, ROACE was impacted by a decrease in average common shareholders' equity.

Operating ROACE excludes the impact of net investment gains (losses), foreign exchange losses (gains), reorganization expenses, and interest in income (loss) of equity method investments.

The increase in operating ROACE in 2022, compared to 2021, was primarily driven by an increase in underwriting income and a decrease in income tax expense, partially offset by a decrease in net investment income. In addition, operating ROACE was impacted by a decrease in average common shareholders' equity.

Book Value per Diluted Common Share

We consider book value per diluted common share to be an appropriate measure of returns to common shareholders, as we believe growth in book value on a diluted basis will ultimately translate into appreciation of our stock price.

In 2022, book value per diluted common share decreased by 16%, due to the net unrealized investment losses reported in other comprehensive income (loss) and common dividends declared, partially offset by net income generated in the year.

In 2021, book value per diluted common share increased by 1%, due to the net income generated, partially offset by a decrease in net unrealized investment gains reported in other comprehensive income and common dividends declared.

Cash Dividends Declared per Common Share

We believe in returning excess capital to shareholders by way of dividends. Accordingly, dividend policy is an integral part of the value we create for shareholders. Our Board of Directors have approved nineteen successive annual increases in quarterly common share dividends.

Book Value per Diluted Common Share Adjusted for Dividends

Taken together, we believe that growth in book value per diluted common share and common share dividends declared represent the total value created for common shareholders. As companies in the insurance industry have differing dividend payout policies, we believe that investors use the book value per diluted common share adjusted for dividends metric to measure comparable performance across the industry.

In 2022, the decrease in total value of \$7.10, or 13%, was driven by net unrealized investment losses recognized in other comprehensive income (loss), partially offset by the net income generated in the year.

In 2021, the increase in total value of \$2.38, or 4%, was driven by the net income generated in the year, partially offset by a decrease in net unrealized investment gains recognized in accumulated other comprehensive income.

NON-GAAP FINANCIAL MEASURES RECONCILIATION

Years ended December 31,	2022	2021	2020
Net income (loss) available (attributable) to common shareholders	\$ 192,833	\$ 588,359	\$ (150,674)
Net investment (gains) losses ⁽¹⁾	456,789	(134,279)	(129,133)
Foreign exchange losses (gains) ⁽²⁾	(157,945)	315	81,069
Reorganization expenses ⁽³⁾	31,426	—	7,881
Interest in (income) loss of equity method investments ⁽⁴⁾	(1,995)	(32,084)	3,612
Income tax expense (benefit)	(23,177)	14,166	13,023
Operating income (loss)	<u>\$ 497,931</u>	<u>\$ 436,477</u>	<u>\$ (174,222)</u>
Earnings (loss) per diluted common share ⁽⁵⁾	\$ 2.25	\$ 6.90	\$ (1.79)
Net investment (gains) losses	5.33	(1.57)	(1.53)
Foreign exchange losses (gains)	(1.84)	—	0.96
Reorganization expenses	0.37	—	0.09
Interest in (income) loss of equity method investments	(0.02)	(0.38)	0.04
Income tax expense (benefit)	(0.28)	0.17	0.15
Operating income (loss) per diluted common share ⁽⁵⁾	<u>\$ 5.81</u>	<u>\$ 5.12</u>	<u>\$ (2.08)</u>
Weighted average diluted common shares outstanding ⁽⁶⁾	85,669	85,291	84,262
Average common shareholders' equity	\$ 4,475,283	\$ 4,803,175	\$ 4,757,351
Return on average common equity	4.3%	12.2%	(3.2%)
Operating return on average common equity	11.1%	9.1%	(3.7%)

- (1) Tax expense (benefit) of \$(36) million, \$11 million and \$18 million for the years ended December 31, 2022, 2021 and 2020, respectively. Tax impact is estimated by applying the statutory rates of applicable jurisdictions, after consideration of other relevant factors including the ability to utilize capital losses.
- (2) Tax expense (benefit) of \$16 million, \$3 million and \$(4) million for the years ended December 31, 2022, 2021 and 2020, respectively. Tax impact is estimated by applying the statutory rates of applicable jurisdictions, after consideration of other relevant factors including the tax status of specific foreign exchange transactions.
- (3) Tax expense (benefit) of \$(4) million, \$nil and \$(1) million for the years ended December 31, 2022, 2021 and 2020, respectively. Tax impact is estimated by applying the statutory rates of applicable jurisdictions.
- (4) Tax expense (benefit) of \$nil for the years ended December 31, 2022, 2021 and 2020, respectively, Tax impact is estimated by applying the statutory rates of applicable jurisdictions.
- (5) Loss per diluted common share and operating loss per diluted common share for the year ended December 31, 2020, were calculated using weighted average common shares outstanding due to the net loss attributable to common shareholders and the operating loss recognized in that year.
- (6) Refer to Item 8, Note 14 to the Consolidated Financial Statements 'Earnings Per Common Share' for further details.

Rationale for the Use of Non-GAAP Financial Measures

We present our results of operations in a way we believe will be meaningful and useful to investors, analysts, rating agencies and others who use our financial information to evaluate our performance. Some of the measurements we use are considered non-GAAP financial measures under SEC rules and regulations. In this Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A"), we present underwriting-related general and administrative expenses, consolidated underwriting income (loss), operating income (loss) (*in total and on a per share basis*), operating return on average common equity ("operating ROACE"), amounts presented on a constant currency basis and pre-tax total return on cash and investments excluding foreign exchange movements, which are non-GAAP financial measures as defined in Item 10(e) of SEC Regulation S-K. We believe that these non-GAAP financial measures, which may be defined and calculated differently by other companies, help explain and enhance the understanding of our results of operations. However, these measures should not be viewed as a substitute for those determined in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

Underwriting-Related General and Administrative Expenses

Underwriting-related general and administrative expenses include those general and administrative expenses that are incremental and/or directly attributable to our underwriting operations. While this measure is presented in Item 8, Note 3 to the Consolidated Financial Statements '*Segment Information*', it is considered a non-GAAP financial measure when presented elsewhere on a consolidated basis.

Corporate expenses include holding company costs necessary to support our worldwide insurance and reinsurance operations and costs associated with operating as a publicly-traded company. As these costs are not incremental and/or directly attributable to our underwriting operations, these costs are excluded from underwriting-related general and administrative expenses and, therefore, consolidated underwriting income (loss). General and administrative expenses, the most comparable GAAP financial measure to underwriting-related general and administrative expenses, also includes corporate expenses.

The reconciliation of underwriting-related general and administrative expenses to general and administrative expenses, the most comparable GAAP financial measure, is presented in '*Management's Discussion and Analysis of Financial Condition and Results of Operations – Consolidated Results of Operations*'.

Consolidated Underwriting Income (Loss)

Consolidated underwriting income (loss) is a pre-tax measure of underwriting profitability that takes into account net premiums earned and other insurance related income (loss) as revenues and net losses and loss expenses, acquisition costs and underwriting-related general and administrative expenses as expenses. While this measure is presented in Item 8, Note 3 to the Consolidated Financial Statements '*Segment Information*', it is considered a non-GAAP financial measure when presented elsewhere on a consolidated basis.

We evaluate our underwriting results separately from the performance of our investment portfolio. As a result, we believe it is appropriate to exclude net investment income and net investment gains (losses) from our underwriting profitability measure.

Foreign exchange losses (gains) in our consolidated statements of operations primarily relate to the impact of foreign exchange rate movements on our net insurance-related liabilities. However, we manage our investment portfolio in such a way that unrealized and realized foreign exchange losses (gains) on our investment portfolio, including unrealized foreign exchange losses (gains) on our equity securities, and foreign exchange losses (gains) realized on the sale of our available for sale investments and equity securities recognized in net investment gains (losses), and unrealized foreign exchange losses (gains) on our available for sale investments recognized in other comprehensive income (loss), generally offset a large portion of the foreign exchange losses (gains) arising from our underwriting portfolio, thereby minimizing the impact of foreign exchange rate movements on total shareholders' equity. As a result, we believe that foreign exchange losses (gains) in our consolidated statements of operations in isolation are not a meaningful contributor to our underwriting performance. Therefore, foreign exchange losses (gains) are excluded from consolidated underwriting income (loss).

Interest expense and financing costs primarily relate to interest payable on our debt. As these expenses are not incremental and/or directly attributable to our underwriting operations, these expenses are excluded from underwriting-related general and administrative expenses and, therefore, consolidated underwriting income (loss).

Reorganization expenses include compensation-related costs and software asset impairments mainly attributable to our exit from catastrophe and property reinsurance lines of business, part of an overall approach to reduce our exposure to volatile

catastrophe risk, announced in June 2022. Reorganization expenses are primarily driven by business decisions, the nature and timing of which are not related to the underwriting process. Therefore, these expenses are excluded from consolidated underwriting income (loss).

Amortization of intangible assets including value of business acquired ("VOBA") arose from business decisions, the nature and timing of which are not related to the underwriting process. Therefore, these expenses are excluded from consolidated underwriting income (loss).

We believe that the presentation of underwriting-related general and administrative expenses and consolidated underwriting income (loss) provides investors with an enhanced understanding of our results of operations, by highlighting the underlying pre-tax profitability of our underwriting activities. The reconciliation of consolidated underwriting income (loss) to net income (loss), the most comparable GAAP financial measure, is presented in *'Management's Discussion and Analysis of Financial Condition and Results of Operations – Consolidated Results of Operations'*.

Operating Income (Loss)

Operating income (loss) represents after-tax operational results exclusive of net investment gains (losses), foreign exchange losses (gains), reorganization expenses and interest in income (loss) of equity method investments.

Although the investment of premiums to generate income and investment gains (losses) is an integral part of our operations, the determination to realize investment gains (losses) is independent of the underwriting process and is heavily influenced by the availability of market opportunities. Furthermore, many users believe that the timing of the realization of investment gains (losses) is somewhat opportunistic for many companies.

Foreign exchange losses (gains) in our consolidated statements of operations primarily relate to the impact of foreign exchange rate movements on net insurance-related liabilities. However, we manage our investment portfolio in such a way that unrealized and realized foreign exchange losses (gains) on our investment portfolio, including unrealized foreign exchange losses (gains) on our equity securities and foreign exchange losses (gains) realized on the sale of our available for sale investments and equity securities recognized in net investment gains (losses) and unrealized foreign exchange losses (gains) on our available for sale investments in other comprehensive income (loss), generally offset a large portion of the foreign exchange losses (gains) arising from our underwriting portfolio, thereby minimizing the impact of foreign exchange rate movements on total shareholders' equity. As a result, we believe that foreign exchange losses (gains) in our consolidated statements of operations in isolation are not a meaningful contributor to the performance of our business. Therefore, foreign exchange losses (gains) are excluded from consolidated operating income (loss).

Reorganization expenses include compensation-related costs and software asset impairments mainly attributable to our exit from catastrophe and property reinsurance lines of business, part of an overall approach to reduce our exposure to volatile catastrophe risk, announced in June 2022. Reorganization expenses are primarily driven by business decisions, the nature and timing of which are not related to the underwriting process. Therefore, these expenses are excluded from operating income (loss).

Interest in income (loss) of equity method investments is primarily driven by business decisions, the nature and timing of which are not related to the underwriting process. Therefore, this income (loss) is excluded from operating income (loss).

Certain users of our financial statements evaluate performance exclusive of after-tax net investment gains (losses), foreign exchange losses (gains), reorganization expenses, and interest in income (loss) of equity method investments in order to understand the profitability of recurring sources of income.

We believe that showing net income (loss) available (attributable) to common shareholders exclusive of after-tax net investment gains (losses), foreign exchange losses (gains), reorganization expenses and interest in income (loss) of equity method investments reflects the underlying fundamentals of our business. In addition, we believe that this presentation enables investors and other users of our financial information to analyze performance in a manner similar to how our management analyzes the underlying business performance. We also believe this measure follows industry practice and, therefore, facilitates comparison of our performance with our peer group. We believe that equity analysts and certain rating agencies that follow us, and the insurance industry as a whole, generally exclude these items from their analyses for the same reasons. The reconciliation of operating income (loss) to net income (loss) available (attributable) to common shareholders, the most comparable GAAP financial measure, is presented above.

We also present operating income (loss) per diluted common share and operating ROACE, which are derived from the operating income (loss) measure and are reconciled above to the most comparable GAAP financial measures, earnings (loss) per diluted common share and return on average common equity ("ROACE"), respectively.

Constant Currency Basis

We present gross premiums written, net premiums written and net premiums earned on a constant currency basis in this MD&A. The amounts presented on a constant currency basis are calculated by applying the average foreign exchange rate from the current year to the prior year amounts. We believe this presentation enables investors and other users of our financial information to analyze growth in gross premiums written, net premiums written and net premiums earned on a constant basis. The reconciliation to gross premiums written, net premiums written and net premiums earned on a GAAP basis is presented in 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Results by Segment'.

Pre-Tax Total Return on Cash and Investments excluding Foreign Exchange Movements

Pre-tax total return on cash and investments excluding foreign exchange movements measures net investment income (loss), net investments gains (losses), interest in income (loss) of equity method investments, and change in unrealized gains (losses) generated by average cash and investment balances. We believe this presentation enables investors and other users of our financial information to analyze the performance of our investment portfolio. The reconciliation of pre-tax total return on cash and investments excluding foreign exchange movements to pre-tax total return on cash and investments, the most comparable GAAP financial measure, is presented in 'Management's Discussion and Analysis of Financial Condition and Results of Operations – Net Investment Income and Net Investment Gains (Losses)'.

CASH AND INVESTMENTS

Details of cash and investments are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
	Fair value	Fair value
Fixed maturities, available for sale	\$ 11,326,894	\$ 12,313,200
Fixed maturities, held to maturity ⁽¹⁾	674,743	445,033
Equity securities	485,253	655,675
Mortgage loans	627,437	594,088
Other investments	996,751	947,982
Equity method investments	148,288	146,293
Short-term investments	70,310	31,063
Total investments	<u>\$ 14,329,676</u>	<u>\$ 15,133,334</u>
Cash and cash equivalents ⁽²⁾	<u>\$ 1,174,653</u>	<u>\$ 1,317,690</u>

(1) Presented at net carrying value of \$698 million (2021: \$446 million) in the consolidated balance sheets.

(2) Includes restricted cash and cash equivalents of \$423 million and \$473 million for 2022 and 2021, respectively.

Overview

The fair value of total investments decreased by \$804 million in 2022, driven by the decrease in market value of fixed maturities due to the increase in yields and the widening of credit spreads.

An analysis of our investment portfolio by asset class is detailed below:

Fixed Maturities

Details of our fixed maturities portfolio are as follows:

	December 31, 2022		December 31, 2021	
	Fair value	% of total	Fair value	% of total
Fixed maturities:				
U.S. government and agency	\$ 2,639,330	22%	\$ 2,682,448	21%
Non-U.S. government	562,029	5%	795,178	6%
Corporate debt	4,329,328	36%	4,532,884	36%
Agency RMBS	1,202,785	10%	1,074,589	8%
CMBS	947,778	8%	1,248,191	10%
Non-agency RMBS	133,534	1%	186,164	1%
ABS	2,030,498	17%	2,029,941	16%
Municipals ⁽¹⁾	156,355	1%	208,838	2%
Total	\$ 12,001,637	100%	\$ 12,758,233	100%
Credit ratings:				
U.S. government and agency	\$ 2,639,330	22%	\$ 2,682,448	21%
AAA ⁽²⁾	4,189,661	36%	4,491,643	34%
AA	871,966	7%	981,837	8%
A	1,835,746	15%	1,917,006	15%
BBB	1,377,638	11%	1,595,285	13%
Below BBB ⁽³⁾	1,087,296	9%	1,090,014	9%
Total	\$ 12,001,637	100%	\$ 12,758,233	100%

(1) Includes bonds issued by states, municipalities, and political subdivisions.

(2) Includes U.S. government-sponsored agencies, residential mortgage-backed securities ("RMBS") and commercial mortgage-backed securities ("CMBS").

(3) Non-investment grade and non-rated securities.

At December 31, 2022, fixed maturities had a weighted average credit rating of AA- (2021: AA-), a book yield of 3.5% (2021: 1.9%), and an average duration of 3.0 years (2021: 3.0 years).

At December 31, 2022, fixed maturities together with short-term investments and cash and cash equivalents (i.e., total investments of \$13.2 billion) had a weighted average credit rating of AA- (2021: AA-) and an average duration of 2.8 years (2021: 2.8 years).

Our methodology for assigning credit ratings to fixed maturities is in line with the methodology used for the Barclays U.S. Aggregate Bond index. This methodology uses the midpoint of Standard & Poor's (S&P), Moody's and Fitch ratings. When ratings from only two of these agencies are available, the lower rating is used. When only one agency rates a security, that rating is used. When ratings provided by S&P, Moody's and Fitch are not available, ratings from other nationally recognized agencies are used.

To calculate the weighted average credit rating for fixed maturities, we assign points to each rating with the highest points assigned to the highest rating (AAA) and the lowest points assigned to the lowest rating (D) and then calculate the weighted average based on the fair values of the individual securities. Securities that are not rated are excluded from weighted average calculations. At December 31, 2022, the fair value of fixed maturities not rated was \$31 million (2021: \$18 million).

In addition to managing credit risk exposure within our fixed maturities portfolio we also monitor the aggregation of country risk exposure on a group-wide basis. Country risk exposure is the risk that events in a country, such as currency crises, regulatory changes and other political events, will adversely affect the ability of obligors in the country to honor their obligations. For corporate debt and structured securities, we measure the country of risk exposure based on a number of factors including, but not limited to, location of management, principal operations and country of revenues.

An analysis of our fixed maturities portfolio by major asset classes is detailed below:

Non-U.S. Government

Non-U.S. government securities include bonds issued by non-U.S. governments and their agencies along with supranational organizations (collectively also known as sovereign debt securities).

Details of exposures to governments in the eurozone and other non-U.S. government concentrations by fair value are as follows:

Country	December 31, 2022			December 31, 2021		
	Fair value	% of total	Weighted average credit rating	Fair value	% of total	Weighted average credit rating
<i>Eurozone countries:</i>						
Supranationals ⁽¹⁾	\$ 16,867	3%	AAA	\$ 16,799	2%	AAA
Netherlands	9,512	2%	AA+	10,065	1%	AA+
Germany	5,037	1%	AAA	5,083	1%	AAA
Austria	2,346	—%	AA+	2,317	—%	AA+
France	1,061	—%	AA	1,303	—%	AA
Total eurozone	34,823	6%	AA+	35,567	4%	AA+
<i>Other concentrations:</i>						
Canada	300,674	53%	AA+	372,333	47%	AAA
United Kingdom	168,068	30%	AA-	248,601	31%	AA-
Mexico	10,151	2%	BBB	19,839	2%	BBB
Other	48,313	9%	AA	118,838	16%	AA+
Total other concentrations	527,206	94%	AA	759,611	96%	AAA
Total non-U.S. government	\$ 562,029	100%	AA	\$ 795,178	100%	AA

(1) Includes supranationals only in the eurozone.

At December 31, 2022, net unrealized losses on non-U.S. government securities were \$51 million (2021: net unrealized gains of \$0.5 million) which included gross unrealized foreign exchange losses of \$24 million (2021: \$5 million), mainly related to U.K. government bonds.

Corporate Debt

Corporate debt securities consist primarily of investment grade debt of a wide variety of corporate issuers and industries.

Details of our corporate debt securities portfolio by sector are as follows:

	December 31, 2022			December 31, 2021		
	Fair value	% of total	Weighted average credit rating	Fair value	% of total	Weighted average credit rating
Financial institutions:						
U.S. banks	\$ 786,541	18%	A	\$ 821,650	18%	A
Corporate/commercial finance	445,524	10%	BBB	380,558	8%	BBB-
Non-U.S. banks	346,176	8%	A-	383,360	8%	A
Insurance	162,107	4%	A	155,735	3%	A+
Investment brokerage	117,706	3%	A	87,923	2%	A-
Total financial institutions	1,858,054	43%	A-	1,829,226	39%	A-
Consumer non-cyclicals	533,543	12%	BBB-	597,163	13%	BBB-
Consumer cyclical	411,559	10%	BB	435,314	10%	BB
Communications	369,295	9%	BB+	406,700	9%	BB+
Industrials	407,318	9%	BB	390,674	9%	BB-
Technology	211,740	5%	BBB-	288,754	6%	BB+
Utilities	166,481	4%	BBB+	198,387	4%	BBB+
Energy	164,770	4%	BBB-	173,606	4%	BBB
Other	206,568	4%	A	213,060	6%	A
Total	\$ 4,329,328	100%	BBB	\$ 4,532,884	100%	BBB
Credit quality summary:						
Investment grade	\$ 3,308,131	76%	A-	\$ 3,501,370	77%	A-
Non-investment grade	1,021,197	24%	B+	1,031,514	23%	B
Total	\$ 4,329,328	100%	BBB	\$ 4,532,884	100%	BBB

At December 31, 2022, our non-investment grade portfolio had a fair value of \$1,021 million (2021: \$1,032 million), a weighted average credit rating of B+ (2021: B) and duration of 2.9 years (2021: 1.7 years). At December 31, 2022, our corporate debt portfolio, including non-investment grade securities, had a duration of 3.6 years (2021: 3.7 years).

Mortgage-Backed Securities

Details of the fair values of our RMBS and CMBS portfolios by credit rating are as follows:

	December 31, 2022		December 31, 2021	
	RMBS	CMBS	RMBS	CMBS
Government agency	\$ 1,202,785	\$ 48,805	\$ 1,074,589	\$ 83,936
AAA	121,188	833,850	166,553	1,069,276
AA	4,192	60,207	3,601	89,813
A	3,682	4,916	9,936	5,166
BBB	122	—	621	—
Below BBB ⁽¹⁾	4,350	—	5,453	—
Total	\$ 1,336,319	\$ 947,778	\$ 1,260,753	\$ 1,248,191

(1) Non-investment grade securities.

Residential MBS

Agency RMBS consist of bonds issued by the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation and the Government National Mortgage Association, which are primarily AAA rated and are supported by loans which are diversified across geographical areas. At December 31, 2022, agency RMBS had an average duration of 5.7 years (2021: 4.4 years).

Non-agency RMBS mainly include investment grade bonds originated by non-agencies. At December 31, 2022, 94% (2021: 91%) of our non-agency RMBS were rated AA or better. At December 31, 2022, non-agency RMBS had an average duration of 4.6 years (2021: 2.1 years) and weighted average life of 6.7 years (2021: 4.8 years).

Commercial MBS

CMBS mainly include investment grade bonds originated by non-agencies. At December 31, 2022, 99% (2021: 99%) of our CMBS were rated AA or better. At December 31, 2022, the weighted average estimated subordination percentage of the portfolio was 38% (2021: 37%), which represents the current weighted average estimated percentage of the capital structure subordinated to the investment holding that is available to absorb losses before the security incurs the first dollar loss of principal. At December 31, 2022, CMBS had an average duration of 2.4 years (2021: 3.1 years) and weighted average life of 3.3 years (2021: 4.0 years).

Asset-Backed Securities

ABS mainly include investment grade bonds backed by pools of loans with a variety of underlying collateral, including auto loans, student loans, credit card receivables and collateralized loan obligations ("CLOs") originated by a variety of financial institutions.

Details of the fair value of our ABS portfolio by underlying collateral and credit rating are as follows:

	Asset-backed securities					Total
	AAA	AA	A	BBB	Below BBB	
At December 31, 2022						
CLO - debt tranches	\$ 994,961	\$ 306,934	\$ 72,319	\$ 26,257	\$ 25,650	\$ 1,426,121
Auto loans	237,884	4,728	—	—	—	242,612
Student loans	104,023	4,401	—	—	—	108,424
Credit card receivables	38,848	534	—	—	—	39,382
Other	178,447	12,351	16,803	6,017	341	213,959
Total	\$ 1,554,163	\$ 328,948	\$ 89,122	\$ 32,274	\$ 25,991	\$ 2,030,498
% of total	77%	16%	4%	2%	1%	100%
At December 31, 2021						
CLO - debt tranches	\$ 953,731	\$ 251,204	\$ 73,595	\$ 33,343	\$ 31,707	\$ 1,343,580
Auto loans	245,653	4,938	—	—	—	250,591
Student loans	149,801	5,166	2,476	—	—	157,443
Credit card receivables	12,977	—	—	—	—	12,977
Other	224,348	11,893	23,311	5,394	404	265,350
Total	\$ 1,586,510	\$ 273,201	\$ 99,382	\$ 38,737	\$ 32,111	\$ 2,029,941
% of total	78%	13%	5%	2%	2%	100%

At December 31, 2022, the average duration our ABS portfolio was 0.5 years (2021: 0.7 years) and the weighted average life was 3.7 years (2021: 4.1 years).

Municipals

Municipals comprise revenue bonds and general obligation bonds issued by U.S. domiciled state and municipal entities and are primarily held in the taxable portfolios of our U.S. subsidiaries.

Details of the fair value of our municipals portfolio by state and between Revenue bonds and General Obligation bonds are as follows:

	General Obligation	Revenue	Total	% of total fair value	Gross unrealized gains	Gross unrealized losses	Weighted average credit rating
<u>At December 31, 2022</u>							
New York	\$ 3,199	\$ 17,098	\$ 20,297	13%	\$ —	\$ (1,234)	AA+
California	2,049	39,143	41,192	26%	93	(5,418)	AA-
Texas	7,387	11,151	18,538	12%	5	(2,464)	AA
Louisiana	—	11,082	11,082	7%	—	(628)	AAA
Massachusetts	5,635	1,836	7,471	5%	—	(559)	AA
Other	10,200	47,575	57,775	37%	41	(5,902)	A+
	<u>\$ 28,470</u>	<u>\$ 127,885</u>	<u>\$ 156,355</u>	<u>100%</u>	<u>\$ 139</u>	<u>\$ (16,205)</u>	AA-
<u>At December 31, 2021</u>							
New York	\$ 798	\$ 31,900	\$ 32,698	16%	\$ 1,416	\$ (2)	AA+
California	2,472	43,945	46,417	22%	1,118	(223)	A+
Texas	9,327	16,587	25,914	12%	677	(238)	AA
Massachusetts	12,511	2,577	15,088	7%	403	(5)	AA
Michigan	—	14,894	14,894	7%	460	(31)	AA-
Other	7,612	66,215	73,827	36%	1,854	(147)	A+
	<u>\$ 32,720</u>	<u>\$ 176,118</u>	<u>\$ 208,838</u>	<u>100%</u>	<u>\$ 5,928</u>	<u>\$ (646)</u>	AA-

General Obligation bonds are backed by the full faith and credit of the authority that issued the debt and are secured by the taxing powers of those authorities. Revenue bonds are backed by the revenue stream generated by the services provided by the issuer (e.g., sewer, water or utility projects). As issuers of revenue bonds do not have the ability to draw from tax revenues or levy taxes to fund obligations, revenue bonds may carry a greater risk of default than General Obligation bonds. At December 31, 2022, all municipals held (2021: 97%) are taxable.

Gross Unrealized Losses

At December 31, 2022, the gross unrealized losses on our fixed maturities, available for sale portfolio were \$857 million (2021: \$94 million).

Investment grade fixed maturities, available for sale

The severity of the unrealized loss position as a percentage of amortized cost for all investment grade fixed maturities in an unrealized loss position including any impact of foreign exchange losses (gains) was as follows:

Severity of Unrealized Loss	December 31, 2022			December 31, 2021		
	Fair value	Gross unrealized losses	% of total gross unrealized losses	Fair value	Gross unrealized losses	% of total gross unrealized losses
0-10%	\$ 6,176,828	\$ (265,175)	33%	\$ 6,172,912	\$ (83,380)	96%
10-20%	2,315,291	(372,213)	47%	10,127	(1,639)	2%
20-30%	520,482	(147,575)	19%	3,576	(1,138)	1%
30-40%	15,622	(6,948)	1%	1,188	(539)	1%
40-50%	1,002	(735)	—%	—	—	—%
> 50%	4	(27)	—%	6	(25)	—%
Total	\$ 9,029,229	\$ (792,673)	100%	\$ 6,187,809	\$ (86,721)	100%

The increase in gross unrealized losses on investment grade fixed maturities reflected the impact of the increase in yields and the widening of credit spreads on investment grade corporate debt securities.

Non-investment grade fixed maturities, available for sale

The severity of the unrealized loss position as a percentage of amortized cost for all non-investment grade fixed maturities in an unrealized loss position including any impact of foreign exchange losses (gains) was as follows:

Severity of Unrealized Loss	December 31, 2022			December 31, 2021		
	Fair value	Gross unrealized losses	% of total gross unrealized losses	Fair value	Gross unrealized losses	% of total gross unrealized losses
0-10%	\$ 644,995	\$ (28,536)	44%	\$ 396,033	\$ (6,493)	85%
10-20%	179,291	(26,642)	42%	3,085	(448)	6%
20-30%	28,414	(6,649)	10%	209	(38)	1%
30-40%	1,393	(495)	1%	—	—	—%
40-50%	738	(410)	1%	267	(194)	3%
> 50%	652	(1,183)	2%	427	(352)	5%
Total	\$ 855,483	\$ (63,915)	100%	\$ 400,021	\$ (7,525)	100%

The increase in gross unrealized losses on non-investment grade fixed maturities reflected the impact of the widening of credit spreads on non-investment grade high yield corporate debt securities.

Equity Securities

At December 31, 2022, net unrealized losses on equity securities were \$9 million (2021: net unrealized gains of \$127 million). The decrease was driven by the decline in market value of bond mutual funds and the decline in global equity markets.

Mortgage Loans

During 2022, investment in commercial mortgage loans increased to \$627 million from \$594 million, an increase of \$33 million. The commercial mortgage loans are high quality, and collateralized by a variety of commercial properties and diversified geographically throughout the U.S. and by property type to reduce the risk of concentration. At December 31, 2022 and 2021, there were no credit losses or past due amounts associated with our commercial mortgage loans portfolio.

Other Investments

Details of our other investments portfolio are as follows:

	December 31, 2022		December 31, 2021	
<u>Hedge funds</u>				
Long/short equity funds	\$	— —%	\$	3,476 —%
Multi-strategy funds		32,616 3%		56,012 6%
Total hedge funds		32,616 3%		59,488 6%
Direct lending funds		258,626 26%		289,867 31%
Private equity funds		265,836 27%		249,974 26%
Real estate funds		298,499 30%		238,222 25%
Total hedge, direct lending, private equity and real estate funds		855,577 86%		837,551 88%
CLO-Equities		5,016 —%		5,910 1%
Other privately held investments		136,158 14%		104,521 11%
Total other investments	\$	996,751 100%	\$	947,982 100%

Refer to Item 8, Note 5(e) to the Consolidated Financial Statements *'Investments'*.

Equity Method Investments

Our ownership interest in Harrington Reinsurance Holdings Limited ("Harrington") is reported in interest in income (loss) of equity method investments.

Interest in income (loss) of equity method investments was \$2 million in 2022, compared to \$32 million in 2021. The decrease was attributable to lower investment gains realized by Harrington.

Restricted Assets

Refer to Item 8, Note 5(j) to the Consolidated Financial Statements *'Investments'*.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity

Liquidity is a measure of a company's ability to generate cash flows sufficient to meet the short-term and long-term cash requirements of its business operations. We manage liquidity at the holding company and operating subsidiary level.

Holding Company

As a holding company, AXIS Capital has no operations of its own and its assets consist primarily of investments in its subsidiaries. Accordingly, AXIS Capital's future cash flows depend on the availability of dividends or other statutorily permissible distributions, such as returns of capital, from its subsidiaries. The ability to pay such dividends and/or distributions is limited by the applicable laws and regulations of the various countries and states in which AXIS Capital's subsidiaries operate (refer to Item 8, Note 22 to the Consolidated Financial Statements *'Statutory Financial Information'* for

further details), as well as the need to maintain capital levels to adequately support insurance and reinsurance operations, and to preserve financial strength ratings issued by independent rating agencies. During 2022, AXIS Capital received \$225 million (2021: \$300 million) of distributions from its subsidiaries. AXIS Capital's primary uses of funds are dividend payments to common and preferred shareholders, interest and principal payments on debt, capital investments in subsidiaries, and payment of corporate operating expenses. We believe the dividend/distribution capacity of AXIS Capital's subsidiaries, which was \$0.9 billion at December 31, 2022, will provide AXIS Capital with sufficient liquidity for the foreseeable future.

Operating Subsidiaries

AXIS Capital's operating subsidiaries primarily derive cash from the net inflow of premiums less claim payments related to underwriting activities and from net investment income. Historically, these cash receipts have been sufficient to fund the operating expenses of these subsidiaries, as well as to fund dividend payments to AXIS Capital. The subsidiaries' remaining cash flows are generally invested in our investment portfolio and have also been used to fund common share repurchases in recent years.

The insurance and reinsurance business of our operating subsidiaries inherently provide liquidity, as premiums are received in advance (sometimes substantially in advance) of the time losses are paid. However, the amount of cash required to fund loss payments can fluctuate significantly from period to period, due to the low frequency/high severity nature of certain types of business we write.

Consolidated cash flows from operating, investing and financing activities in the last three years were as follows:

Total cash provided by (used in)⁽¹⁾	2022	2021	2020
Operating activities	\$ 692,216	\$ 1,114,822	\$ 343,503
Investing activities	(655,798)	(1,114,195)	489,921
Financing activities	(149,622)	(186,095)	(908,803)
Effect of exchange rate changes on cash	(29,833)	(74)	2,154
Decrease in cash and cash equivalents	\$ (143,037)	\$ (185,542)	\$ (73,225)

(1) Refer to Item 8, 'Consolidated Statements of Cash Flows' for further details.

- Net cash provided by operating activities was \$692 million in 2022 compared to \$1,115 million in 2021. Cash inflows from insurance and reinsurance operations typically include premiums, net of acquisition costs, and reinsurance recoverables. Cash outflows principally include payments of losses and loss expenses, payments of premiums to reinsurers and operating expenses. Cash provided by operating activities can fluctuate due to timing differences between the collection of premiums and reinsurance recoverables and the payment of losses and loss expenses, and the payment of premiums to reinsurers. Operating cash inflows decreased in 2022 compared to 2021, primarily attributable to an increase in payments of premiums to reinsurers, and an increase in payments of losses and loss expenses, partially offset by an increase in premiums received, an increase in reinsurance recoverables received, and an increase in interest and dividends received from our fixed maturity securities portfolio.
- Investing cash outflows in 2022 principally related to the net purchases of fixed maturities of \$599 million, short-term investments of \$40 million, and mortgage loans of \$33 million, and purchases of other assets of \$37 million, partially offset by the net proceeds from the sale of equity securities of \$44 million, and other investments of \$9 million. Investing cash outflows in 2021 principally related to the net purchases of fixed maturities of \$1,154 million and equity securities of \$112 million, partially offset by the net proceeds from the sale and redemption of short-term investments of \$130 million, and the net proceeds from the sale of other investments of \$61 million.
- Financing cash outflows in 2022 were principally due to dividends paid to common and preferred shareholders of \$180 million, and the repurchase of common shares of \$49 million, partially offset by the receipt of the Federal Home Loan Bank advances of \$79 million. Financing cash outflows in 2021 were principally due to dividends paid to common and preferred shareholders of \$176 million. The declaration and payment of future dividends and share repurchases is at the discretion of our Board of Directors and will depend on many factors including, but not limited to, our net income, financial condition, business needs, capital and surplus requirements of our operating subsidiaries and regulatory and contractual restrictions, including those set forth in our credit facilities (refer to 'Capital Resources – Share Repurchases' below for further details).

We have generated positive operating cash flows in all years since 2003, with the exception of 2009 which was impacted by the global financial crisis. These positive cash flows were generated even with the recognition of significant catastrophe and weather-related losses including the impact of the COVID-19 pandemic in 2020 and 2021.

Net losses and loss expenses, gross of reinstatement premiums, included estimates of ultimate losses for catastrophe and weather-related losses of \$404 million in 2022, \$450 million in 2021 and \$773 million in 2020. There remains significant uncertainty associated with estimates of ultimate losses for certain of these events (refer to *'Underwriting Results – Insurance segment – Current Accident Year Loss'* and *'Underwriting Results – Reinsurance segment – Current Accident Year Loss Ratio'* for further details), as well as the timing of the associated cash outflows.

Should claim payment obligations accelerate beyond our ability to fund payments from operating cash flows, we would utilize cash and cash equivalent balances and/or liquidate a portion of our investment portfolio.

Our investment portfolio is heavily weighted towards conservative, high quality and highly liquid securities. We expect that, if necessary, approximately \$12.3 billion of cash and invested assets at December 31, 2022 could be available in one to three business days under normal market conditions. Of this amount, \$5.2 billion related to restricted assets, which primarily support our obligations in regulatory jurisdictions where we operate as a non-admitted carrier (refer to Item 8, Note 5(j) to the Consolidated Financial Statements *'Investments'* for further details).

For context, at January 1, 2023, our largest 1-in-250 year return period, single occurrence, single-zone modeled probable maximum loss (Japan Earthquake) was approximately \$195 million, net of reinsurance. Claim payments pertaining to such an event would be paid out over a period spanning many months. Our internal risk tolerance framework aims to limit the loss of capital due to a single event and the loss of capital that would occur from multiple but perhaps smaller events, in any year (refer to Item 1 *'Risk and Capital Management'* for further details).

We expect that cash flows generated from operations, combined with the liquidity provided by our investment portfolio, to be sufficient to cover required cash outflows and other contractual commitments through the foreseeable future (refer to *'Contractual Obligations and Commitments'* below for further details).

Capital Resources

In addition to common equity, we have utilized other external sources of financing, including debt, preferred shares, and letter of credit facilities to support our business operations. We believe that we hold sufficient capital to allow us to take advantage of market opportunities and to maintain our financial strength ratings, as well as to comply with various local statutory regulations. We monitor capital adequacy on a regular basis and will seek to adjust our capital base according to the needs of our business (refer to Item 1 *'Risk and Capital Management'* for further details).

The following table summarizes consolidated capital:

At December 31,	2022	2021
Debt	<u>\$ 1,312,314</u>	<u>\$ 1,310,975</u>
Preferred shares	550,000	550,000
Common equity	<u>4,089,910</u>	<u>4,860,656</u>
Shareholders' equity	<u>4,639,910</u>	<u>5,410,656</u>
Total capital	<u><u>\$ 5,952,224</u></u>	<u><u>\$ 6,721,631</u></u>
Ratio of debt to total capital	22.0%	19.5%

We finance our operations with a combination of debt and equity capital. The debt to total capital ratio provides an indication of our capital structure, along with some insight into our financial strength.

While the impact of unrealized investment losses recognized in other comprehensive income (loss), following a decrease in market value of our fixed maturities, has reduced common shareholders' equity, we believe that our financial flexibility remains strong, and adjustments are made if there are developments that are different from previous expectations.

Debt

Debt represents the 5.150% Senior Notes issued in 2014, which will mature in 2045, the 4.000% Senior Notes issued in 2017, which will mature in 2027, the 3.900% Senior Notes issued in 2019, which will mature in 2029, and the 4.900% Junior Subordinated Notes issued in 2019, which will mature in 2040 (refer to Item 8, Note 10(a) to the Consolidated Financial Statements *'Debt and Financing Arrangements'* for further details).

The 3.900% Senior Notes and the 4.900% Junior Subordinated Notes were issued to finance the repayment of \$500 million aggregate principal amount of 5.875% Senior Notes that matured in June 2020 and to finance the redemption of Series D preferred shares on January 17, 2020 (refer to *'Preferred Shares'* below for further details).

Federal Home Loan Bank Advances

The Company's subsidiaries, AXIS Insurance Company and AXIS Surplus Insurance Company are members of the Federal Home Loan Bank of Chicago ("FHLB").

Members may borrow from the FHLB at competitive rates subject to certain conditions. At December 31, 2022, the companies had admitted assets of approximately \$3 billion which provides borrowing capacity of up to approximately \$750 million. Conditions of membership include maintaining sufficient collateral deposits for funding, a requirement to maintain member stock at 0.4% of mortgage-related assets at December 31st of the prior year, and a requirement to purchase additional member stock of 2.0% or 4.5% of any amount borrowed (refer to Item 8, Note 11 to the Consolidated Financial Statements *'Federal Home Loan Bank Advances'* for further details).

Preferred Shares

Series D Preferred Shares

On May 20, 2013, we issued \$225 million of 5.50% Series D preferred shares with a liquidation preference of \$25.00 per share. On January 17, 2020, we redeemed all outstanding Series D preferred shares, for an aggregate liquidation preference of \$225 million (refer to Item 8, Note 15 to the Consolidated Financial Statements *'Shareholders' Equity'* for further details).

Series E Preferred Shares

On November 7, 2016, we issued \$550 million of 5.50% Series E preferred shares with a liquidation preference of \$2,500 per share (equivalent to \$25 per depository share). Dividends on the Series E preferred shares are non-cumulative. To the extent declared, dividends accumulate, with respect to each dividend period, in an amount per share equal to 5.50% of the liquidation preference per annum (equivalent to \$137.50 per Series E preferred share and \$1.375 per depository share). We may redeem these shares on or after November 7, 2021 at a redemption price of \$2,500 per Series E preferred share (equivalent to \$25 per depository share) (refer to Item 8, Note 15 to the Consolidated Financial Statements *'Shareholders' Equity'* for further details).

Secured Letter of Credit Facilities

We routinely enter into agreements with financial institutions to obtain secured letter of credit facilities. These facilities are primarily used for the issuance of letters of credit, in the normal course of operations, to certain insurance and reinsurance entities that purchase reinsurance protection from us. These letters of credit allow those operations to take credit, under local insurance regulations, for reinsurance obtained in jurisdictions where AXIS Capital's subsidiaries are not licensed or otherwise admitted as an insurer. The value of our letters of credit outstanding is driven by, among other factors, the amount of unearned premiums, development of loss reserves, the payment patterns of loss reserves, the expansion of our business and the loss experience of that business. A portion of these facilities may also be used for liquidity purposes.

On November 20, 2013, certain of AXIS Capital's operating subsidiaries (the "Participating Subsidiaries") entered into an amendment to extend the term of its secured \$750 million letter of credit facility with Citibank Europe plc ("Citibank") (the "\$750 million Facility").

On March 31, 2015, the Participating Subsidiaries entered into an amendment to reduce the maximum aggregate utilization capacity of the \$750 million Facility to \$500 million (the "\$500 million Facility"). All other material terms and conditions remained unchanged.

On March 27, 2017, the Participating Subsidiaries amended their existing \$500 million Facility to include an additional \$250 million of secured letter of credit capacity (the "\$250 million Facility"). Under the terms of the amended \$750 million

Facility, letters of credit to a maximum aggregate amount of \$250 million are available for issuance on behalf of the Participating Subsidiaries once the \$500 million Facility has been fully utilized.

On December 24, 2019, the expiration date of the \$500 million Facility was extended to December 31, 2023.

On March 28, 2020, the expiration date of the \$250 million Facility was extended to March 31, 2021.

On March 31, 2021, the Participating Subsidiaries amended their existing secured \$750 million Facility to extend the expiration date of the \$250 million Facility to March 31, 2022, to reduce the utilization capacity available under the \$250 million Facility to \$150 million, reducing the maximum aggregate utilization capacity of the credit facility from \$750 million to \$650 million, and to make administrative changes to the remaining \$500 million Facility.

On March 31, 2022, the Participating Subsidiaries amended their existing \$650 million secured letter of credit facility to extend the expiration date of the \$150 million secured letter of credit facility to March 31, 2023, with each letter of credit provided pursuant to such credit facility having a tenor not to extend beyond March 31, 2024. The terms and conditions of the \$500 million secured letter of credit facility remain unchanged.

At December 31, 2022, letters of credit outstanding were \$362 million (refer to Item 8, Note 10 to the Consolidated Financial Statements *'Debt and Financing Arrangements'* for further details).

Common Equity

During the year ended December 31, 2022, common equity decreased by \$771 million. The following table reconciles opening and closing common equity positions:

Year ended December 31,	2022	2021
Common equity - opening	\$ 4,860,656	\$ 4,745,694
Share-based compensation expense	51,249	40,780
Change in unrealized gains (losses) on available for sale investments, net of tax	(805,850)	(358,480)
Foreign currency translation adjustment	(10,986)	621
Net income (loss)	223,083	618,609
Preferred share dividends	(30,250)	(30,250)
Common share dividends	(150,556)	(147,221)
Treasury shares repurchased	(48,981)	(10,242)
Treasury shares reissued	1,545	1,145
Common equity - closing	\$ 4,089,910	\$ 4,860,656

Share Repurchases

During 2022, we repurchased 897,000 common shares for a total of \$49 million, including \$35 million repurchased pursuant to our Board-authorized share repurchase program and \$14 million from employees to facilitate the satisfaction of their personal withholding tax liabilities that arise on vesting of share-settled restricted stock units granted under our 2017 Long-Term Equity Compensation Plans.

As part of our capital management strategy, our Board of Directors authorizes common share repurchase programs. On December 8, 2022, our Board of Directors authorized a new share repurchase program for up to \$100 million of our common shares through December 31, 2023. The new share repurchase authorization, effective January 1, 2023, replaced the previous program which had \$65 million available until December 31, 2022 (refer to Item 5 *'Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities'*). Share repurchases may be effected from time to time in the open market or privately negotiated transactions, depending on market conditions.

Shelf Registrations

On November 9, 2022, we filed an unallocated universal shelf registration statement with the SEC, which became effective on filing. Pursuant to the shelf registration, we may issue an unlimited amount of equity, debt, warrants, purchase contracts or a combination of these securities. Our intent and ability to issue securities pursuant to this registration statement will depend on market conditions at the time of any proposed offering.

Financial Strength Ratings

Our principal insurance and reinsurance operating subsidiaries are assigned financial strength ratings from internationally recognized rating agencies, including Standard & Poor's, A.M. Best, and Moody's Investors Service. These ratings are publicly announced and are available directly from the agencies, and on our website.

Financial strength ratings represent the opinions of the rating agencies on the overall financial strength of a company and its capacity to meet the obligations of its insurance and reinsurance contracts. Independent ratings are one of the important factors that establish a competitive position in insurance and reinsurance markets. The rating agencies consider many factors in determining the financial strength rating of an insurance company, including the relative level of statutory surplus necessary to support the business operations of the company. These ratings are based on factors considered by the rating agencies to be relevant to policyholders, agents and intermediaries and are not directed toward the protection of investors. Ratings are not recommendations to buy, sell or hold securities.

The following are the most recent financial strength ratings from internationally recognized agencies in relation to our principal insurance and insurance operating subsidiaries:

Rating agency	Agency's description of rating	Rating and outlook	Agency's rating definition	Ranking of rating
Standard & Poor's	An "opinion about the financial security characteristics of an insurance organization, with respect to its ability to pay under its insurance policies and contracts, in accordance with their terms".	A+ (Stable) ⁽¹⁾	"Strong capacity to meet its financial commitments"	The 'A' category is the third highest out of ten major rating categories. The second through eighth major rating categories may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.
A.M. Best	An "opinion of an insurer's financial strength and ability to meet its ongoing insurance policy and contract obligations".	A (Stable) ⁽²⁾	"Excellent ability to meet ongoing insurance obligations"	The 'A' category is the third highest rating out of fourteen. Ratings outlooks ('Positive', 'Negative' and 'Stable') are assigned to indicate a rating's potential direction over an intermediate term, generally defined as 36 months.
Moody's Investors Service	"Opinions of the ability of insurance companies to pay punctually senior policyholder claims and obligations."	A2 (Stable) ⁽³⁾	"Offers good financial security"	The 'A' category is the third highest out of nine rating categories. Each of the second through seventh categories are subdivided into three subcategories, as indicated by an appended numerical modifier of '1', '2' and '3'. The '1' modifier indicates that the obligation ranks in the higher end of the rating category, the '2' modifier indicates a mid-category ranking and the '3' modifier indicates a ranking in the lower end of the rating category.

- (1) On July 20, 2022, Standard and Poor's revised its outlook from negative to stable due to improved underwriting performance and reduced prospective earnings volatility as a result of our exit from property and catastrophe reinsurance lines of business.
- (2) On May 5, 2020, A.M. Best revised its rating and outlook from A+ and negative to A and stable, respectively. The revised rating was based on unfavorable trends in operating performance over the past five years, particularly emanating from the insurance segment. The revised outlook continues to reflect our strong balance sheet, favorable business profile and appropriate risk management practices.
- (3) On May 31, 2022, Moody's Investors Service revised its outlook from negative to stable due to improved core underwriting profitability and reduced catastrophe risk exposure.

Contractual Obligations and Commitments

At December 31, 2022, contractual obligations and commitments by period due were:

Contractual obligations and commitments	Payment due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating activities					
Estimated gross losses and loss expenses payments ⁽¹⁾	\$ 15,168,863	\$ 3,943,790	\$ 4,972,993	\$ 2,677,508	\$ 3,574,572
Operating lease obligations ⁽²⁾	102,577	15,930	20,684	15,477	50,486
Investing activities					
Unfunded investment commitments ⁽³⁾	551,835	188,295	210,504	50,803	102,233
Financing activities					
Debt (principal payments) ⁽⁴⁾	1,325,000	—	—	350,000	975,000
Debt (interest payments) ⁽⁴⁾⁽⁵⁾	591,311	60,800	121,796	121,115	287,600
Total	\$ 17,739,586	\$ 4,208,815	\$ 5,325,977	\$ 3,214,903	\$ 4,989,891

- (1) We are obligated to pay claims for specified loss events covered by the insurance and reinsurance contracts that we write. Loss payments represent our most significant future payment obligation. In contrast to our other contractual obligations, cash payments are not determinable from the terms specified within the underlying contracts. Our best estimate of reserve for losses and loss expenses is reflected in the table above. Actual amounts and timing may differ materially from our best estimate (refer to 'Critical Accounting Estimates – Reserve for Losses and Loss Expenses' for further details). We have not taken into account corresponding reinsurance recoverable on unpaid amounts that would be due to us.
- (2) In the ordinary course of business, we renew and enter into new leases for office space which expire at various dates (refer to Item 8, Note 13 to the Consolidated Financial Statements 'Leases' for further details).
- (3) We have \$508 million of unfunded investment commitments related to our other investments portfolio, which are callable by our investment managers (refer to Item 8, Note 5(e) to the Consolidated Financial Statements 'Investments' for further details). In addition, we have \$25 million of unfunded commitments related to our commercial mortgage loans portfolio and \$20 million of unfunded commitments related to our corporate debt portfolio.
- (4) Refer to Item 8, Note 10(a) to the Consolidated Financial Statements 'Debt and Financing Arrangements' for further details.
- (5) Debt (interest payments) includes \$13 million of unamortized discount and debt issuance expenses.

CRITICAL ACCOUNTING ESTIMATES

The consolidated financial statements include certain amounts that are inherently uncertain and judgmental in nature. As a result, we are required to make assumptions and best estimates in order to determine the reported values. We consider an accounting estimate to be critical if: (1) it requires that significant assumptions be made in order to deal with uncertainties and (2) changes in the estimate could have a material impact on our results of operations, financial condition or liquidity.

We believe that the material items requiring such subjective and complex estimates are:

- reserves for losses and loss expenses;
- reinsurance recoverable on unpaid losses and loss expenses, including the allowance for expected credit losses;
- gross premiums written and net premiums earned;
- fair value measurements of financial assets and liabilities; and
- the allowance for credit losses associated with fixed maturities, available for sale.

Significant accounting policies are also important to understanding the consolidated financial statements (refer to Item 8, Note 2 to the Consolidated Financial Statements 'Basis of Presentation and Significant Accounting Policies' for further details).

We believe that the amounts included in the consolidated financial statements reflect management's best judgment. However, factors such as those described in Item 1A 'Risk Factors' could cause actual events or results to differ materially from the underlying assumptions and estimates which could lead to a material adverse impact on our results of operations, financial condition or liquidity.

Reserve for Losses and Loss Expenses

Overview

We believe the most significant accounting judgment we make is the estimate of reserve for losses and loss expenses ("loss reserves"). Loss reserves represent management's estimate of the unpaid portion of our ultimate liability for losses and loss expenses ("ultimate losses") for insured and reinsured events that have occurred at or before the balance sheet date. Loss reserves reflect claims that have been reported ("case reserves") to us and claims that have been incurred but not reported ("IBNR") to us. Loss reserves represent our best estimate of what the ultimate settlement and administration of claims will cost, based on our assessment of facts and circumstances known at that particular point in time.

Loss reserves are not an exact calculation of the liability but instead are complex estimates. The process of estimating loss reserves involves a number of variables (refer to '*Selection of Reported Reserves – Management's Best Estimate*' below for further details). We review estimates of loss reserves each reporting period and consider all significant facts and circumstances known at that particular point in time. As additional experience and other data become available and/or laws and legal interpretations change, we may adjust previous estimates of loss reserves. Adjustments are recognized in the period in which they are determined. Therefore, they can impact that period's underwriting results either favorably, indicating that current estimates are lower than previous estimates, or adversely, indicating that current estimates are higher than previous estimates.

Case Reserves

With respect to insurance business, we are generally notified of losses by our insureds and/or their brokers. Based on this information, our claims personnel estimate ultimate losses arising from the claim, including the cost of administering the claims settlement process. These estimates reflect the judgment of our claims personnel based on general reserving practices, the experience and knowledge of such personnel regarding the nature of the specific claim and, where appropriate, the advice of legal counsel, loss adjusters and other relevant consultants.

With respect to reinsurance business, we are generally notified of losses by ceding companies and/or their brokers. For excess of loss contracts, we are typically notified of insured losses on specific contracts and record a case reserve for the estimated ultimate liability arising from the claim. For contracts written on a proportional basis, we typically receive aggregated claims information and record a case reserve for the estimated ultimate liability arising from the claim based on that information. Proportional reinsurance contracts typically require that losses in excess of pre-defined amounts be separately notified so we can adequately evaluate them. Our claims department evaluates each specific loss notification we receive and records additional case reserves when a ceding company's reserve for a claim is not considered adequate. We also undertake an extensive program of cedant audits, using outsourced legal and industry experience where necessary. This allows us to review cedants' claims administration practices to ensure that reserves are consistent with exposures, adequately established, and properly reported in a timely manner.

IBNR

The estimation of IBNR is necessary due to potential development on reported claims and the time lag between when a loss event occurs and when it is actually reported, which is referred to as a reporting lag. Reporting lags may arise from a number of factors, including but not limited to, the nature of the loss, the use of intermediaries and complexities in the claims adjusting process. As we do not have specific information on IBNR, it must be estimated. IBNR is calculated by deducting incurred losses (i.e., paid losses and case reserves) from management's best estimate of ultimate losses. In contrast to case reserves, which are established at the contract level, IBNR reserves are generally estimated at an aggregate level and cannot be identified as reserves for a particular loss event or contract (refer to '*Reserving for Catastrophic Events*' below for further details).

Reserving Methodology

Refer to Item 8, Note 8 to the Consolidated Financial Statements '*Reserve for Losses and Loss Expenses – Reserving Methodology – Sources of Information*' for a description of the collection and analysis of data used in our quarterly loss reserving process.

Refer to Item 8, Note 8 to the Consolidated Financial Statements '*Reserve for Losses and Loss Expenses – Reserving Methodology – Actuarial Analysis*' for a description of the reserve estimation methods, Expected Loss Ratio Method ("ELR Method"), Loss Development Method (also referred to as the "Chain Ladder Method" or "Link Ratio Method") and Bornhuetter-Ferguson Method ("BF Method") which are commonly employed by our actuaries together with a discussion of their strengths and weaknesses.

Refer to Item 8, Note 8 to the Consolidated Financial Statements 'Reserve for Losses and Loss Expenses – Reserving Methodology – Key Actuarial Assumptions', which notes that the most significant assumptions used in our quarterly loss reserving process are expected loss ratios ("ELRs) and loss development patterns and that the weight given to our experience differs for each of the three claim tail classes (refer to 'Claim Tail Analysis' below for further details).

Claim Tail Analysis

Gross loss reserves for each of the reportable segments, segregated between case reserves and IBNR, by line of business are shown below:

At December 31,	2022			2021		
	Case reserves	IBNR	Total	Case reserves	IBNR	Total
Insurance segment:						
Property	\$ 565,954	\$ 487,681	\$ 1,053,635	\$ 596,704	\$ 487,478	\$ 1,084,181
Accident and health	22,770	60,795	83,565	15,906	42,891	58,797
Marine and aviation	490,895	419,712	910,606	386,303	403,700	790,003
Cyber	158,449	559,561	718,010	203,327	486,591	689,918
Professional lines	681,053	2,325,695	3,006,748	800,333	2,090,430	2,890,763
Credit and political risk ⁽¹⁾	(38,293)	181,538	143,246	(105,469)	146,175	40,708
Liability	466,527	1,999,256	2,465,783	408,444	1,840,716	2,249,159
Total Insurance	2,347,355	6,034,238	8,381,593	2,305,548	5,497,981	7,803,529
Reinsurance segment:						
Accident and health	64,949	207,953	272,902	70,078	202,518	272,596
Agriculture	40,598	95,645	136,243	37,577	70,430	108,007
Marine and aviation	99,019	115,582	214,601	112,680	85,256	197,936
Professional lines	550,786	761,575	1,312,361	559,204	670,305	1,229,509
Credit and surety	133,710	169,759	303,469	134,615	170,024	304,640
Motor	753,053	367,504	1,120,556	737,097	486,978	1,224,075
Liability	696,220	1,353,846	2,050,067	611,597	1,245,103	1,856,700
Run-off lines						
Catastrophe	498,604	328,723	827,327	510,865	423,401	934,266
Property	273,607	124,253	397,860	334,390	202,541	536,930
Engineering	97,964	53,920	151,884	126,320	58,586	184,906
Total run-off lines	870,175	506,896	1,377,071	971,575	684,528	1,656,102
Total Reinsurance	3,208,510	3,578,760	6,787,270	3,234,423	3,615,142	6,849,565
Total	\$ 5,555,865	\$ 9,612,998	\$ 15,168,863	\$ 5,539,971	\$ 9,113,123	\$ 14,653,094

(1) During 2022 and 2021, significant gross claims associated with certain credit and political risk contracts were paid in advance of recoveries being received from the corresponding security which resulted in negative case reserves of \$(55) million (2021: \$(128) million) and related negative reinsurance recoverable on unpaid losses and loss expenses of \$(15) million (2021: \$(56) million). Refer to *Reserving for Credit and Political Risk Business* below for further details.

Refer to Item 8, Note 8 to the Consolidated Financial Statements 'Reserve for Losses and Loss Expenses' for the mapping of our lines of business to expected claim tails.

In order to capture the key dynamics of loss reserve development and potential volatility, lines of business should be considered according to their potential expected length of loss emergence and settlement, generally referred to as the "tail". We consider our business to consist of three claim tail classes, short-tail, medium-tail and long-tail. Favorable development on prior accident year reserves indicates that current estimates are lower than previous estimates, while adverse development on prior accident year reserves indicates that current estimates are higher than previous estimates. Below is a discussion of the specifics of our loss reserve process as it applies to each claim tail class.

Short-tail Business

Refer to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses – Reserving Methodology – Claim Tail Analysis'* for details of the lines of business included in short-tail business and the associated key actuarial assumptions.

Although estimates of ultimate losses for short-tail business are inherently more certain than for medium and long-tail business, significant judgment is still required. For example, much of our excess insurance and excess of loss reinsurance business has high attachment points. Therefore, it is often difficult to estimate whether claims will exceed those attachment points. In addition, the inherent uncertainties relating to catastrophe events further add to the complexity of estimating potential exposure. Further, we use managing general agents ("MGAs") and other producers for certain business in the insurance segment, which can delay the reporting of loss information. We expect the majority of development for an accident year or underwriting year to be recognized in the subsequent one to three years.

Refer to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses – Reserve for Losses and Loss Expenses – Prior Year Reserve Development'* for a detailed discussion of prior year reserve development by line of business and see further details below.

Medium-tail Business

Refer to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses – Reserving Methodology – Claim Tail Analysis'* for details of the lines of business included in medium-tail business and the associated key actuarial assumptions.

Refer to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses – Reserve for Losses and Loss Expenses – Prior Year Reserve Development'* for a detailed discussion of prior year reserve development by line of business.

Refer to *'Reserving for Credit and Political Risk Business'* below for a detailed discussion of specific loss reserve issues related to the credit and political risk line of business.

Long-tail Business

Refer to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses – Reserving Methodology – Claim Tail Analysis'* for details of the lines of business included in long-tail business and the associated key actuarial assumptions.

Factors that contribute additional uncertainty to estimates for long-tail business include, but are not limited to:

- potential volatility of actuarial estimates, given the number of years of development it takes to produce a significant incurred loss as a percentage of ultimate losses;
- inherent uncertainties about loss trends, claims inflation (e.g., medical, judicial, social) and general economic conditions; and
- the possibility of future litigation, legislative or judicial change that may impact future loss experience relative to prior industry loss experience relied on in reserve estimation.

Refer to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses – Reserve for Losses and Loss Expenses – Prior Year Reserve Development'* for a detailed discussion of prior year reserve development by line of business and see further details below.

Reserving for Credit and Political Risk Business

Refer to Item 8, Note 8 to the Consolidated Financial Statements *'Reserve for Losses and Loss Expenses – Net incurred and Paid Claims Development Tables by Accident Year – Insurance segment – Insurance Credit and Political Risk'* for details of this line of business and the associated key actuarial assumptions.

An important and distinguishing feature of many of these contracts is the contractual right, subsequent to payment of a claim to an insured, to be subrogated to, or otherwise have an interest in, the insured's rights of recovery under an insured loan or facility agreement. These estimated recoveries are recorded as an offset to credit and political risk gross loss reserves. The lag between the date of a claim payment and the ultimate recovery from the corresponding security can result in negative case reserves at a point in time. During 2022 and 2021, significant gross claims associated with certain credit and political risk contracts were paid in advance of recoveries being received from the corresponding security which resulted in negative case reserves of \$(55) million (2021: \$(128) million) and related negative reinsurance recoverable on unpaid losses and loss expenses of \$(15) million (2021: \$(56) million). Refer to '*Critical Accounting Estimates – Reinsurance Recoverable on Unpaid Losses and Loss Expenses*' for further details.

The nature of the underlying collateral is specific to each transaction. Therefore, we estimate the value of this collateral on a contract-by-contract basis. This valuation process is inherently subjective and involves the application of management's judgment because active markets for the collateral often do not exist. Estimates of values are based on numerous inputs, including information provided by our insureds, as well as third-party sources including rating agencies, asset valuation specialists and other publicly available information. We also assess any post-event circumstances, including restructurings, liquidations and possession of asset proposals/agreements.

In some instances, on becoming aware of a loss event related to credit and political risk business, we negotiate a final settlement of all of our policy liabilities for a fixed amount. In most circumstances, this occurs when the insured moves to realize the benefit of the collateral that underlies the insured loan or facility and presents us with a net settlement proposal that represents a full and final payment by us under the terms of the policy. In consideration for this payment, we secure a cancellation of the policy, or a release of all claims, and waive our right to pursue a recovery of these settlement payments against the collateral that may have been available to us under the insured loan or facility agreement. In certain circumstances, cancellation by way of net settlement or full payment can result in an adjustment to the premium associated with the policy.

Additionally, when we consider prior year reserve development for the credit and political risk line of business, it is important to note that the multi-year nature of this business distorts loss ratios when a single accident year is considered in isolation. Premiums for these contracts generally earn evenly over the contract term, therefore, are reflected in multiple accident years. In contrast, losses incurred on these contracts, which can be characterized as low in frequency and high in severity, are reflected in a single accident year.

Refer to Item 8, Note 8 to the Consolidated Financial Statements '*Reserve for Losses and Loss Expenses – Reserve for Losses and Loss Expenses – Prior Year Reserve Development*' for further details.

Reserving for Catastrophic Events

Refer to Item 8, Note 8 to the Consolidated Financial Statements '*Reserve for Losses and Loss Expenses – Reserving Methodology – Reserving for Catastrophic Events*' for further details.

In addition to those noted in Item 8, Note 8 to the Consolidated Financial Statements '*Reserve for Losses and Loss Expenses – Reserving Methodology – Reserving for Catastrophic Events*' there are additional risks that affect our ability to accurately estimate ultimate losses for catastrophic events. For example, the estimates of loss reserves related to hurricanes and earthquakes can be affected by factors including, but not limited to, the inability to access portions of impacted areas, infrastructure disruptions, the complexity of factors contributing to losses, legal and regulatory uncertainties, complexities involved in estimating business interruption losses and additional living expenses, the impact of demand surge, fraud and the limited nature of information available. For hurricanes, additional complex coverage factors may include determining whether damage was caused by flooding or wind, evaluating general liability and pollution exposures, and mold damage. The timing of a catastrophe, for example, near the end of a reporting period, can also affect the level of information available to us to estimate loss reserves for that reporting period.

Results of operations for 2022 were impacted by natural and man-made catastrophe activity (refer to '*Underwriting Results – Insurance segment – Current Accident Year Loss Ratio*' and '*Underwriting Results – Reinsurance segment – Current Accident Year Loss Ratio*' for further details).

Selection of Reported Reserves – Management's Best Estimate

Refer to Item 8, Note 8 to the Consolidated Financial Statements '*Reserve for Losses and Loss Expenses – Reserving Methodology – Selection of Reported Reserves – Management's Best Estimate*' for further details.

Independent Actuarial Review

On an annual basis, we use an independent actuarial firm to provide an actuarial opinion on the reasonableness of loss reserves for each of our operating subsidiaries and statutory reporting entities as these actuarial opinions are required to meet various insurance regulatory requirements. The actuarial firm also discusses its conclusions from the annual review with management and presents its findings to the Audit Committee of the Board of Directors.

Sensitivity Analysis

While we believe that loss reserves at December 31, 2022 are adequate, new information, events or circumstances may result in ultimate losses that are materially greater or less than provided for in our loss reserves. As previously noted, there are many factors that may cause reserves to increase or decrease, particularly those related to catastrophe losses and long-tail lines of business.

Expected loss ratios are a key assumption in estimates of ultimate losses for business at an early stage of development. A higher expected loss ratio results in a higher ultimate loss estimate, and vice versa.

Assumed loss development patterns are another significant assumption in estimating loss reserves. Accelerating a loss reporting pattern (i.e., shortening the claim tail) results in lower ultimate losses, as the estimated proportion of losses already incurred would be higher.

The effect on estimates of gross loss reserves of reasonably likely changes in the two key assumptions used to estimate gross loss reserves at December 31, 2022 was as follows:

INSURANCE			
Development pattern	Expected loss ratio		
	Higher Loss Reserves (Lower Loss Reserves)		
<i>Professional lines</i>	10% lower	Unchanged	10% higher
6 months shorter	\$ (238,760)	\$ (52,645)	\$ 135,299
Unchanged	(182,792)	—	192,068
6 months longer	(106,514)	80,650	273,585
<i>Property</i>	5% lower	Unchanged	5% higher
3 months shorter	\$ (84,008)	\$ (50,836)	\$ (45,192)
Unchanged	(6,777)	—	7,536
3 months longer	81,362	90,306	100,449
<i>Liability</i>	10% lower	Unchanged	10% higher
6 months shorter	\$ (215,696)	\$ (54,796)	\$ 106,950
Unchanged	(156,873)	—	162,311
6 months longer	(82,737)	73,033	233,329
<i>Cyber</i>	10% lower	Unchanged	10% higher
6 months shorter	\$ (55,759)	\$ (19,580)	\$ 16,598
Unchanged	(37,799)	—	40,784
6 months longer	25,710	50,288	90,806
<i>Marine and aviation</i>	5% lower	Unchanged	5% higher
3 months shorter	\$ (39,610)	\$ (22,408)	\$ (5,018)
Unchanged	(18,183)	—	18,180
3 months longer	27,454	46,040	64,626
<i>Accident and health</i>	5% lower	Unchanged	5% higher
3 months shorter	\$ (11,854)	\$ (8,792)	\$ (5,730)
Unchanged	(2,831)	—	2,831
3 months longer	10,303	13,311	16,319
<i>Credit and political risk</i>	10% lower	Unchanged	10% higher
6 months shorter	\$ (22,538)	\$ —	\$ 22,538
Unchanged	(22,538)	—	22,538
6 months longer	(22,538)	—	22,538

REINSURANCE			
Development pattern	Expected loss ratio		
	Higher Loss Reserves (Lower Loss Reserves)		
Liability	10% lower	Unchanged	10% higher
6 months shorter	\$ (218,785)	\$ (63,722)	\$ 98,869
Unchanged	(151,428)	—	161,708
6 months longer	(67,782)	87,120	246,522
Accident and health	5% lower	Unchanged	5% higher
3 months shorter	\$ (9,109)	\$ (6,490)	\$ (3,870)
Unchanged	(2,349)	—	2,349
3 months longer	6,282	8,732	11,182
Professional lines	10% lower	Unchanged	10% higher
6 months shorter	\$ (124,894)	\$ (48,882)	\$ 27,970
Unchanged	(78,217)	—	79,941
6 months longer	(18,849)	60,811	144,679
Credit and surety	10% lower	Unchanged	10% higher
6 months shorter	\$ (25,617)	\$ (9,531)	\$ 6,889
Unchanged	(16,549)	—	16,423
6 months longer	(3,930)	13,328	30,095
Motor	10% lower	Unchanged	10% higher
6 months shorter	\$ (64,670)	\$ (17,823)	\$ 33,737
Unchanged	(34,827)	—	46,351
6 months longer	16,728	55,864	97,964
Agriculture	5% lower	Unchanged	5% higher
3 months shorter	\$ (9,904)	\$ —	\$ 9,904
Unchanged	(9,904)	—	9,904
3 months longer	(9,904)	—	9,904
Marine and aviation	5% lower	Unchanged	5% higher
3 months shorter	\$ (9,395)	\$ (7,155)	\$ (4,915)
Unchanged	(2,526)	—	2,526
3 months longer	4,891	7,685	10,493
Catastrophe	5% lower	Unchanged	5% higher
3 months shorter	\$ (1,872)	\$ (1,235)	\$ (599)
Unchanged	(278)	—	298
3 months longer	1,581	1,957	2,333
Property	5% lower	Unchanged	5% higher
3 months shorter	\$ (11,695)	\$ (10,082)	\$ (8,468)
Unchanged	(2,017)	—	1,990
3 months longer	11,066	13,534	16,025
Engineering	5% lower	Unchanged	5% higher
3 months shorter	\$ (5,636)	\$ (3,098)	\$ (559)
Unchanged	(2,693)	—	2,693
3 months longer	575	3,441	6,306

The results show the cumulative increase (decrease) in loss reserves across all accident years.

For example, if assumed loss development pattern for insurance property business was three months shorter with no accompanying change in ELR assumption, loss reserves may decrease by approximately \$51 million. Each of the impacts set forth in the tables is estimated individually, without consideration for any correlation among key assumptions or among reserve classes. Therefore, it would be inappropriate to take each of the amounts and add them together in an attempt to

estimate total volatility. Additionally, it is noted that in some instances, for example the projection of catastrophe estimates or credit and political risks estimates, development patterns are not appropriate as more bespoke techniques are used. While we believe the variations in the expected loss ratios and loss development patterns presented could be reasonably expected, our historical loss data regarding variability is generally limited and actual variations may be greater or less than these amounts.

It is also important to note that the variations are not meant to be a "best-case" or "worst-case" series of scenarios and, therefore, it is possible that future variations in loss reserves may be more or less than the amounts presented. While we believe that these are reasonably likely scenarios, we do not believe this sensitivity analysis should be considered an actual reserve range.

Reinsurance Recoverable on Unpaid Losses and Loss Expenses

In the normal course of business, we purchase facultative and treaty reinsurance protection to limit ultimate losses from catastrophic events and to reduce loss aggregation risk. To the extent that reinsurers do not meet their obligations under the reinsurance agreements, we remain liable. Consequently, we are exposed to credit risk associated with reinsurance recoverable on unpaid losses and loss expenses ("reinsurance recoverables") to the extent that any of our reinsurers are unable or unwilling to pay claims.

Reinsurance recoverables for each of the reportable segments, segregated between case reserves and IBNR, by line of business are shown below:

At December 31,	2022			2021		
	Case reserves	IBNR	Total	Case reserves	IBNR	Total
Insurance segment:						
Property	\$ 221,616	\$ 177,210	\$ 398,826	\$ 200,190	\$ 211,657	\$ 411,847
Accident and health	820	5,698	6,518	1,088	4,879	5,967
Marine and aviation	195,845	83,131	278,976	149,586	91,065	240,651
Cyber	92,219	301,217	393,436	134,235	250,102	384,338
Professional lines	403,078	1,071,461	1,474,539	302,668	807,483	1,110,150
Credit and political risk ⁽¹⁾	(18,990)	53,382	34,391	(53,763)	30,382	(23,381)
Liability	258,072	1,288,447	1,546,520	188,705	1,132,764	1,321,469
Total Insurance	1,152,660	2,980,546	4,133,206	922,709	2,528,332	3,451,041
Reinsurance segment:						
Accident and health	7,303	31,344	38,647	7,675	24,558	32,232
Agriculture	8,600	1,418	10,018	9,952	1,977	11,929
Marine and aviation	27,209	30,484	57,692	34,753	26,155	60,908
Professional lines	81,413	222,436	303,849	67,453	183,888	251,341
Credit and surety	27,097	52,212	79,309	22,022	44,943	66,965
Motor	131,630	126,853	258,483	104,500	124,695	229,195
Liability	136,016	391,496	527,513	104,914	329,954	434,868
Run-off lines						
Catastrophe	245,250	163,925	409,175	243,049	216,269	459,317
Property	12,942	72	13,014	19,670	(212)	19,458
Engineering	131	135	266	137	218	357
Total run-off lines	258,323	164,132	422,455	262,856	216,275	479,132
Total Reinsurance	677,591	1,020,375	1,697,966	614,125	952,445	1,566,570
Total	\$ 1,830,251	\$ 4,000,921	\$ 5,831,172	\$ 1,536,834	\$ 3,480,777	\$ 5,017,611

(1) During 2022 and 2021, significant gross claims associated with certain credit and political risk contracts were paid in advance of recoveries being received from the corresponding security which resulted in negative case reserves of \$(55) million (2021: \$(128) million) and related negative reinsurance recoverables related to case reserves of \$(15) million (2021: \$(56) million). Refer to *Critical Accounting Estimates – Reserve for Losses and Loss Expenses – Reserving for Credit and Political Risk Business* for further details.

Refer to Item 8, Note 8 to the Consolidated Financial Statements '*Reserve for Losses and Loss Expenses*' for the mapping of our lines of business to expected claim tails.

At December 31, 2022, reinsurance recoverables as a percentage of loss reserves was 38% (2021: 34%). At December 31, 2022, reinsurance recoverables that were collectible from reinsurers rated A- or better by A.M Best were 81.8% (2021: 85.7%). Refer to Item 8, Note 12 to the Consolidated Financial Statements '*Commitments and Contingencies*' for an analysis of the credit risk associated with reinsurance recoverables at December 31, 2022.

The recognition of reinsurance recoverables requires two key estimates as follows:

- The first estimate is the amount of loss reserves to be ceded to our reinsurers. This amount consists of amounts related to case reserves and amounts related to IBNR. Refer to Item 8, Note 2 to the Consolidated Financial Statements '*Basis of Presentation and Significant Accounting Policies*' for further details.
- The second estimate is the amount of the reinsurance recoverable balance that we believe ultimately will not be collected from reinsurers. We are selective in choosing reinsurers, buying reinsurance principally from reinsurers with a strong financial condition and industry ratings. The amount we ultimately collect may differ from our estimate due to the ability and willingness of reinsurers to pay claims, which may be negatively impacted by factors such as insolvency, contractual disputes over contract language or coverage and/or other reasons. In addition, economic conditions and/or operational performance of a particular reinsurer may deteriorate, and this could also affect the ability and willingness of a reinsurer to meet their contractual obligations.

Consequently, we review reinsurance recoverables at least quarterly to estimate an allowance for expected credit losses. Refer to Item 8, Note 2 to the Consolidated Financial Statements '*Basis of Presentation and Significant Accounting Policies*' for further details.

At December 31, 2022, the allowance for expected credit losses was \$31 million (2021: \$30 million). We have not written off any significant reinsurance recoverable balances in the last three years.

At December 31, 2022, the use of different assumptions could have a material effect on the allowance for expected credit losses. To the extent the creditworthiness of our reinsurers deteriorates due to an adverse event affecting the reinsurance industry, such as a large number of catastrophes, uncollectible amounts could be significantly greater than the allowance for expected credit losses. Given the various considerations used to estimate the allowance for expected credit losses, we cannot precisely quantify the effect a specific industry event may have on the allowance for expected credit losses.

Gross Premiums Written

Revenues primarily relate to premiums generated by our underwriting operations. The basis for recognizing gross premiums written varies by policy or contract type. Refer to Item 8, Note 2 to the Consolidated Financial Statements '*Basis of Presentation and Significant Accounting Policies*' for further details.

Insurance Segment

For the majority of our insurance business, a fixed premium that is identified in the policy is recorded at the inception of the policy. This premium is adjusted if underlying insured values change. We actively monitor underlying insured values, and any adjustments to premiums are recognized in the period in which they are determined. Gross premiums written on a fixed premium basis accounted for 85% and 87% of the segment's gross premiums written for the years ended December 31, 2022 and 2021, respectively. Some of this business is written through MGAs, third parties granted authority to bind risks on our behalf in accordance with our underwriting guidelines. For this business, premiums are recorded based on monthly statements received from MGAs or best estimates based on historical experience.

The remainder of our insurance business is written on a line slip or proportional basis, where we assume an agreed proportion of the premiums and losses of a particular risk or group of risks along with other unrelated insurers. As premiums for this business are not identified in the policy, premiums are recognized at the inception of the policy based on estimates provided by clients through brokers (refer to '*Reinsurance Segment*' below for further details). We review these premium estimates on a quarterly basis and any adjustments to premium estimates are recognized in the period in which they are determined. Gross premiums written on a line slip or proportional basis accounted for 15% and 13% of the segment's gross premiums written for the years ended December 31, 2022 and 2021, respectively.

For the credit and political risk line of business, we write certain policies on a multi-year basis. Premiums in respect of these policies are recorded at the inception of the policy based on management's best estimate of premiums to be received, including

assumptions relating to prepayments/refinancing. At December 31, 2022, the average duration of unearned premiums for credit and political risk line of business was 5.4 years (2021: 5.2 years).

Reinsurance Segment

The reinsurance segment provides cover to cedants (i.e., insurance companies) on an excess of loss or on a proportional basis. In most cases, cedants seek protection from us for business that they have not yet written at the time they enter into agreements with us. Therefore, cedants must estimate their underlying premiums when purchasing reinsurance cover from us.

Excess of loss reinsurance contracts with cedants typically include minimum or deposit premium provisions. For excess of loss reinsurance contracts, minimum or deposit premiums are generally considered to be the best estimate of premiums at the inception of the contract. The minimum or deposit premium is normally adjusted at the end of the contract period to reflect changes in the underlying risks in force during the contract period. Any adjustments to minimum or deposit premiums are recognized in the period in which they are determined. Gross premiums written for excess of loss reinsurance contracts accounted for 43% and 49% of the reinsurance segment's gross premiums written for the years ended December 31, 2022 and 2021, respectively.

Many of our excess of loss reinsurance contracts also include provisions for automatic reinstatement of coverage in the event of a loss. In a year of significant loss events, reinstatement premiums will be higher than in a year in which there are no large loss events. Refer to Item 8, Note 2 to the Consolidated Financial Statements '*Basis of Presentation and Significant Accounting Policies*' and '*Critical Accounting Estimates – Reserve for Losses and Loss Expenses*' above for further details.

For proportional reinsurance contracts, premiums are recognized at the inception of the contract based on estimates to be received from ceding companies. We review these premium estimates on a quarterly basis and evaluate their reasonability in light of premiums reported by cedants. Factors contributing to changes in initial premium estimates may include:

- changes in renewal rates or rates of new business accepted by cedants (changes could result from changes in the relevant insurance market that could affect more than one of our cedants or could be a consequence of changes in the marketing strategy or risk appetite of an individual cedant);
- changes in underlying exposure values; and/or
- changes in rates being charged by cedants.

As a result of this review process, any adjustments to premium estimates are recognized in the period in which they are determined. Changes in premium estimates could be material to gross premiums written in the period. Changes in premium estimates could be also material to net premiums earned in the period in which they are determined, as any adjustment may be substantially or fully earned. Gross premiums written for proportional reinsurance contracts, including adjustments to premium estimates established in prior years, accounted for 57% and 51% of the reinsurance segment's gross premiums written for the years ended December 31, 2022 and 2021, respectively.

Gross premiums written for proportional reinsurance contracts incepting during the year were as follows:

Year ended December 31,	2022	2021	2020
Liability	\$ 376,462	\$ 383,232	\$ 265,358
Accident and health	307,082	302,520	300,646
Professional lines	236,454	205,305	156,643
Credit and surety	133,853	93,638	91,940
Motor	135,954	187,569	228,754
Agriculture	112,452	72,897	52,682
Marine and aviation	22,081	23,912	19,065
<i>Run-off lines</i>			
Catastrophe	3,463	12,733	13,863
Property	60,204	117,397	135,312
Engineering	—	—	15,472
<i>Total run-off lines</i>	63,667	130,130	164,647
Total estimated premiums	\$ 1,388,005	\$ 1,399,203	\$ 1,279,735
Gross premiums written (reinsurance segment)	\$ 2,629,014	\$ 2,822,752	\$ 2,808,539
As a % of total gross premiums written	53 %	50 %	46 %

Historical experience has shown that cumulative adjustments to initial premium estimates for proportional reinsurance contracts have ranged from 0% to 7% over the last 5 years.

We believe that a reasonably likely change to 2022 initial premium estimates for proportional reinsurance contracts would be 4% in either direction. A change in initial premium estimates of this magnitude would result in a change in gross premiums written of approximately \$56 million. A change in initial premium estimates of this magnitude would not have a material impact on pre-tax net income, after considering current losses and loss expenses ratios together with acquisition cost ratios.

However, larger variations, positive or negative, are possible.

Net Premiums Earned

Premiums are earned evenly over the period during which we are exposed to the underlying risk. Changes in circumstances subsequent to the inception of contracts can impact the earning periods. For example, when exposure limits for a contract are reached, any associated unearned premiums are fully earned. This can have a significant impact on net premiums earned, particularly for multi-year contracts such as those in the credit and political risk line of business.

Fixed premium insurance policies and excess of loss reinsurance contracts are generally written on a "losses occurring" or "claims made" basis over the term of the contract. Consequently, premiums are earned evenly over the contract term, which is generally 12 months.

Line slip or proportional insurance policies and proportional reinsurance contracts are generally written on a "risks attaching" basis, covering claims that relate to the underlying policies written during the terms of these contracts. As the underlying business incepts throughout the contract term which is typically one year, and the underlying business typically has a one year coverage period, these premiums are generally earned evenly over a 24-month period.

Fair Value Measurements of Financial Assets and Liabilities

Fair value is defined as the price to sell an asset or transfer a liability (i.e., the "exit price") in an orderly transaction between market participants. Refer to Item 8, Note 6 to the Consolidated Financial Statements 'Fair Value Measurements' for information on the valuation techniques, including significant inputs and assumptions generally used in estimating the fair values of our financial instruments.

Fixed Maturities and Equity Securities

At December 31, 2022, the fair values of 93% (2021: 94%) of total fixed maturities and equity securities were based on prices provided by globally recognized independent pricing services where we have a current and detailed understanding of how their prices were derived. The remaining securities were priced by either non-binding broker quotes or internal valuation models.

Generally, we obtain quotes directly from broker-dealers who are active in the corresponding markets when prices are unavailable from independent pricing services. This may also be the case if the pricing from pricing services is not reflective of current market levels, as detected by our pricing control tolerance procedures. Generally, broker-dealers value securities through their trading desks based on observable market inputs. Their pricing methodologies include mapping securities based on trade data, bids or offers, observed spreads and performance on newly issued securities. They may also establish pricing through observing secondary trading of similar securities.

At December 31, 2022 and 2021, we did not adjust any pricing provided by independent pricing services.

Management Pricing Validation

While we obtain pricing from independent pricing services and/or broker-dealers, management is ultimately responsible for determining the fair value measurements of all securities. To ensure fair value measurement is applied consistently and in accordance with U.S. GAAP, annually, we update our understanding of the pricing methodologies used by the pricing services and broker-dealers.

We also challenge any prices we believe may not be representative of fair value under current market conditions. Our review process includes, but is not limited to:

- initial and ongoing evaluation of the pricing methodologies and valuation models used by outside parties to calculate fair value;
- quantitative analysis;
- a review of multiple quotes obtained in the pricing process and the range of resulting fair values for each security, if available; and
- randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates provided by the independent pricing sources and broker-dealers.

Other Investments

Hedge Funds, Direct Lending Funds, Private Equity Funds and Real Estate Funds

The fair values of hedge funds, direct lending funds, private equity funds and real estate funds are estimated using net asset values (NAVs) as advised by external fund managers or third-party administrators. At December 31, 2022, the estimated fair value of our investments in these funds was \$856 million (2021: \$838 million). Refer to Item 8, Note 6 to the Consolidated Financial Statements *'Fair Value Measurements'* for further details.

CLO-Equity Securities

The fair values of CLO-Equities are estimated using a discounted cash flow model prepared by an external investment manager. At December 31, 2022, the estimated fair value of our indirect investment in CLO-Equities was \$5 million (2021: \$6 million). Refer to Item 8, Note 6 to the Consolidated Financial Statements *'Fair Value Measurements'* for further details.

Other Privately Held Investments

Other privately held investments include convertible preferred shares, preferred shares, common shares, convertible notes, investments in limited partnership and a variable yield security. These investments are initially valued at cost, which approximates fair value. In subsequent measurement periods, the fair values of these investments are derived from one or a combination of valuation methodologies, which consider factors including recent capital raises by the investee companies, comparable precedent transaction multiples, comparable publicly traded multiples, third-party valuations, discounted cash-flow models, and other techniques that consider the industry and development stage of each investee company. The fair value of the variable yield security was determined using an externally developed discounted cash flow model. At December 31, 2022, the estimated fair value of these investments was \$136 million (2021: \$105 million). Refer to Item 8, Note 6 to the Consolidated Financial Statements *'Fair Value Measurements'* for further details.

Impairment Losses and the Allowance for Expected Credit Losses - Fixed Maturities, Available for Sale

Fixed maturities classified as available for sale are reported at fair value at the balance sheet date and are presented net of an allowance for expected credit losses. Our available for sale ("AFS") investment portfolio is the largest component of consolidated total assets, and it is a multiple of shareholders' equity. As a result, impairment losses could be material to our results of operations and financial condition particularly during periods of dislocation in financial markets.

A fixed maturity, available for sale security is impaired if the fair value of the investment is below amortized cost. On a quarterly basis, the Company evaluates all fixed maturities, available for sale for impairment losses.

Details regarding our processes for the identification of impairments of fixed maturities, available for sale and the recognition of the related impairment losses are disclosed in Item 8, Note 2 to the Consolidated Financial Statements *'Basis of Presentation and Significant Accounting Policies'*.

In addition, the methodologies and significant inputs used to estimate the allowance for expected credit losses are disclosed in Item 8, Note 5 (i) to the Consolidated Financial Statements *'Investments'*.

At December 31, 2022, we recorded an allowance for expected credit losses of \$11.7 million (2021: \$0.3 million) and for the year ended December 31, 2022, we recorded impairment losses of \$12.6 million (2021: \$nil) (refer to *'Net Investment Income and Net Investment Gains (Losses)'* for further details). The allowance for expected credit loss is charged to net income (loss) and is included in net investment gains (losses) in the consolidated statements of operations.

Intent or Requirement to Sell

From time to time, we may sell fixed maturities, available for sale subsequent to the balance sheet date that we did not intend to sell at the balance sheet date. Conversely, we may not sell fixed maturities, available for sale that we intended to sell at the balance sheet date. These changes in intent may arise due to events occurring subsequent to the balance sheet date. The types of events that may result in a change in intent include, but are not limited to, significant changes in the economic facts and circumstances related to the specific issuer, changes in liquidity needs, or changes in tax laws or the regulatory environment.

U.S. Treasury Securities and Other Highly Rated Debt Instruments

Our credit impairment review process excludes fixed maturities, available for sale guaranteed, either explicitly or implicitly, by the U.S. government and its agencies (*U.S. Government, U.S. Agency and U.S. Agency RMBS*) because we anticipate these securities will not be settled below amortized cost. These securities are evaluated for intent or requirement to sell at a loss.

RECENT ACCOUNTING PRONOUNCEMENTS

At December 31, 2022, there were no recently issued accounting pronouncements that we have not yet adopted that we expect could have a material impact on our results of operations, financial condition or liquidity.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Market risk is the risk that our financial instruments may be negatively impacted by movements in financial market prices or rates such as interest rates, credit spreads, equity securities' prices, and foreign currency exchange rates (refer to Item 1 '*Risk and Capital Management*' for further details).

We own a substantial amount of assets whose fair values are subject to market risks.

At December 31, 2022, 94% (2021: 97%) of fixed maturities are classified as available for sale, therefore changes in fair values caused by changes in interest rates and foreign currency exchange rates have an immediate impact on other comprehensive income (loss), total shareholders' equity and book value per common share but do not have an immediate impact on net income (loss). Changes in these market risks impact net income (loss) when, and if, securities are sold, or an impairment charge or an allowance for expected credit losses is recorded.

Equity securities are reported at fair value, with changes in fair values recognized in net income (loss).

At December 31, 2022 and 2021, we also invested in alternative investments including hedge funds, direct lending funds, private equity funds, real estate funds, CLO-Equities and other privately held investments. These investments are also exposed to market risks, with the changes in fair values immediately reported in net income (loss).

Sensitivity Analysis

The following is a sensitivity analysis of our primary market risk exposures at December 31, 2022 and 2021.

Our policies to address these risks in 2022 were not materially different from 2021. We do not currently anticipate significant changes in our primary market risk exposures or in how those exposures are managed in future reporting periods based on what is known or expected to be in effect in future reporting periods.

Interest Rate and Credit Spread Risk

Interest rate risk includes fluctuations in interest rates and credit spreads that have a direct impact on the fair values of fixed maturities. As interest rates rise and credit spreads widen, the fair value of fixed maturities falls.

We monitor sensitivity to interest rate and credit spread changes by revaluing fixed maturities using a variety of different interest rates (inclusive of credit spreads). We use duration and convexity at the security level to estimate the change in fair value that would result from a change in each security's yield. Duration measures the price sensitivity of an asset to changes in yield rates. Convexity measures how the duration of the security changes with interest rates. The duration and convexity analysis take into account changes in prepayment expectations for MBS and ABS. The analysis is performed at the security level and aggregated to the asset category levels.

The following table presents the estimated pre-tax impact on the fair value of fixed maturities classified as available for sale due to an instantaneous increase in the U.S. yield curve of 100 basis points and an additional 100 basis point credit spread widening for corporate debt, non-agency residential MBS and commercial MBS, ABS and municipal bond securities:

	Fair value	Potential adverse change in fair value		
		Increase in interest rate by 100 basis points	Widening of credit spreads by 100 basis points	Total
At December 31, 2022				
U.S. government and agency	\$ 2,639,330	\$ (78,870)	\$ —	\$ (78,870)
Non-U.S. government	562,029	(15,428)	—	(15,428)
Agency RMBS	1,202,785	(68,760)	—	(68,760)
<i>Securities exposed to credit spreads:</i>				
Corporate debt	4,255,556	(149,860)	(160,439)	(310,299)
CMBS	947,778	(23,016)	(29,792)	(52,808)
Non-agency RMBS	133,534	(6,086)	(5,779)	(11,865)
ABS	1,429,527	(9,673)	(47,191)	(56,864)
Municipals	156,355	(6,814)	(7,197)	(14,011)
	<u>\$ 11,326,894</u>	<u>\$ (358,507)</u>	<u>\$ (250,398)</u>	<u>\$ (608,905)</u>
At December 31, 2021				
U.S. government and agency	\$ 2,682,448	\$ (85,129)	\$ —	\$ (85,129)
Non-U.S. government	795,178	(22,607)	—	(22,607)
Agency RMBS	1,074,589	(47,406)	—	(47,406)
<i>Securities exposed to credit spreads:</i>				
Corporate debt	4,495,312	(163,656)	(172,830)	(336,486)
CMBS	1,248,191	(38,536)	(49,568)	(88,104)
Non-agency RMBS	186,164	(3,927)	(5,036)	(8,963)
ABS	1,622,480	(14,552)	(62,633)	(77,185)
Municipals	208,838	(8,941)	(9,593)	(18,534)
	<u>\$ 12,313,200</u>	<u>\$ (384,754)</u>	<u>\$ (299,660)</u>	<u>\$ (684,414)</u>

U.S. government agencies have a limited range of spread widening. Therefore, 100 basis points of spread widening for these securities is highly improbable in normal market conditions. Our non-U.S. government debt obligations are highly-rated, and we believe the potential for future widening of credit spreads would also be limited for these securities. Certain of our holdings in non-agency RMBS and ABS have floating interest rates, which mitigate interest rate risk exposure.

The above sensitivity analysis should not be construed as our prediction of future market events, but rather an illustration of the impact of such events.

In addition, our investment in bond mutual funds is exposed to interest rate risk. However, this exposure is largely mitigated by the short duration of the underlying securities.

Our investment in CLO-Equities is also exposed to interest rate risk, but an increase in the risk-free yield curve of 100 basis points would have an insignificant impact on its fair value.

Equity Price Risk

Our portfolio of equity securities, excluding the bond mutual funds, has exposure to equity price risk. This risk is defined as the potential loss in fair value resulting from adverse changes in stock prices. The global equity portfolio is managed to a benchmark composite index, which consists of a blend of the S&P 500 and MSCI World indices. Changes in the underlying indices have a corresponding impact on the overall portfolio. At December 31, 2022, the fair value of equity securities was

\$277 million (2021: \$338 million). At December 31, 2022, the impact of a 20% decline in the overall market prices of our equity exposures would be \$55 million (2021: \$68 million), on a pre-tax basis.

Our investment in hedge funds has significant exposure to equity strategies with net long positions. At December 31, 2022, the fair value of hedge funds was \$33 million (2021: \$59 million). At December 31, 2022, the impact of an instantaneous 15% decline in the fair value of our investment in hedge funds would be \$5 million (2021: \$9 million), on a pre-tax basis.

Foreign Currency Risk

The following table presents a sensitivity analysis of total net foreign currency exposures:

	AUD	NZD	CAD	EUR	GBP	JPY	Other	Total
At December 31, 2022								
Net managed assets (liabilities), excluding derivatives	\$ 11,331	\$ 4,776	\$ 302,679	\$ (538,845)	\$ (411,773)	\$ (36,346)	\$ 44,183	\$ (623,995)
Foreign currency derivatives, net	7,160	—	(312,269)	505,623	271,022	32,097	(74,438)	429,195
Net managed foreign currency exposure	18,491	4,776	(9,590)	(33,222)	(140,751)	(4,249)	(30,255)	(194,800)
Other net foreign currency exposure	—	—	102	(1,199)	(924)	—	995	(1,026)
Total net foreign currency exposure	\$ 18,491	\$ 4,776	\$ (9,488)	\$ (34,421)	\$ (141,675)	\$ (4,249)	\$ (29,260)	\$ (195,826)
Net foreign currency exposure as a percentage of total shareholders' equity	0.4%	0.1%	(0.2%)	(0.7%)	(3.1%)	(0.1%)	(0.6%)	(4.2%)
Pre-tax impact of net foreign currency exposure on shareholders' equity given a hypothetical 10% rate movement ⁽¹⁾	\$ 1,849	\$ 478	\$ (949)	\$ (3,442)	\$ (14,168)	\$ (425)	\$ (2,926)	\$ (19,583)
At December 31, 2021								
Net managed assets (liabilities), excluding derivatives	\$ 34,315	\$ 8,565	\$ 270,300	\$ (528,430)	\$ (333,144)	\$ (72,230)	\$ (14,221)	\$ (634,845)
Foreign currency derivatives, net	(6,549)	(1,713)	(260,890)	476,603	332,251	83,152	524	623,378
Net managed foreign currency exposure	27,766	6,852	9,410	(51,827)	(893)	10,922	(13,697)	(11,467)
Other net foreign currency exposure	1	—	141	(699)	(1,374)	—	33,867	31,936
Total net foreign currency exposure	\$ 27,767	\$ 6,852	\$ 9,551	\$ (52,526)	\$ (2,267)	\$ 10,922	\$ 20,170	\$ 20,469
Net foreign currency exposure as a percentage of total shareholders' equity	0.5%	0.1%	0.2%	(1.0%)	—%	0.2%	0.4%	0.4%
Pre-tax impact of net foreign currency exposure on shareholders' equity given a hypothetical 10% rate movement ⁽¹⁾	\$ 2,777	\$ 685	\$ 955	\$ (5,253)	\$ (227)	\$ 1,092	\$ 2,017	\$ 2,047

(1) Assumes 10% appreciation in underlying currencies relative to the U.S. dollar.

Net Managed Foreign Currency Exposure

Our net managed foreign currency exposure is subject to internal risk tolerance standards. For significant foreign currency exposures, defined as those where net asset/liability position exceeds the greater of 1% of total shareholders' equity or \$46 million, the value of assets denominated in those currencies should fall within a range of 90 - 110% of liabilities denominated in the same currency. In addition, aggregate foreign currency exposure is subject to the same tolerance range. We may use derivative instruments to maintain net managed foreign currency exposures within our risk tolerance levels.

Other Net Foreign Currency Exposure

During 2022, our emerging market debt securities portfolio which was included in other net foreign currency exposure, was liquidated.

In 2021, other net foreign currency exposure primarily consisted of our emerging market debt securities portfolio, which included those assets managed by specific investment managers who have the discretion to hold foreign currency exposures as part of their total return strategy.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Consolidated Financial Statements and Accompanying Notes	Page
Report of Independent Registered Public Accounting Firm - PCAOB ID No. 5230	110
Consolidated Balance Sheets at December 31, 2022 and 2021	112
Consolidated Statements of Operations for the years ended December 31, 2022, 2021 and 2020	113
Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2022, 2021 and 2020	114
Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2022, 2021 and 2020	115
Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020	116
Notes to Consolidated Financial Statements	118
Note 1 – Organization	118
Note 2 – Basis of Presentation and Significant Accounting Policies	119
Note 3 – Segment Information	127
Note 4 – Goodwill and Intangible Assets	132
Note 5 – Investments	135
Note 6 – Fair Value Measurements	147
Note 7 – Derivative Instruments	158
Note 8 – Reserve for Losses and Loss Expenses	160
Note 9 – Reinsurance	196
Note 10 – Debt and Financing Arrangements	197
Note 11 – Federal Home Loan Bank Advances	200
Note 12 – Commitments and Contingencies	201
Note 13 – Leases	204
Note 14 – Earnings Per Common Share	206
Note 15 – Shareholders' Equity	206
Note 16 – Retirement Plans	208
Note 17 – Share-Based Compensation	209
Note 18 – Related Party Transactions	213
Note 19 – Reorganization Expenses	214
Note 20 – Income Taxes	214
Note 21 – Other Comprehensive Income (Loss)	219
Note 22 – Statutory Financial Information	220

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of AXIS Capital Holdings Limited

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of AXIS Capital Holdings Limited and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income, changes in shareholders' equity, and cash flows, for each of the three years in the period ended December 31, 2022, and the related notes and the schedules listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 24, 2023 expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Reserve for losses and loss expenses - Refer to Notes 2 and 8 to the consolidated financial statements

Critical Audit Matter Description

The Company's estimate of loss and loss expense reserves is derived using expected trends in claim severity and frequency and other factors that may vary significantly as claims are settled. The estimate is sensitive to significant assumptions, including the initial expected loss ratio and loss development factors. The estimate is also sensitive to the selection of actuarial methods and weighting of these methods applied to project the ultimate losses, the estimation of ultimate reserves associated with catastrophic events, and other factors. Further, not all catastrophic events can be modeled using traditional actuarial methodologies, which increases the degree of judgment needed in estimating loss reserves for such events.

Auditing the Company's methods, assumptions and best estimate of the cost of the ultimate settlement and administration of claims represented by the incurred but not reported ("IBNR") claims included in recorded loss and loss adjustment reserves involved especially subjective auditor judgment and an increased extent of effort, including the involvement of our actuarial specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to reserves for losses and loss expenses included the following, among others:

- We tested the effectiveness of controls over the valuation of the recorded loss and loss expense reserves, including the review and approval process that management has in place for significant actuarial methods and assumptions used and the approval of management's best estimate of loss and loss expense reserves.
- We tested the completeness and accuracy of the underlying data that served as the basis for the Company's actuarial analysis, including historical claims data, to test the reasonableness of key inputs to the actuarial estimate.
- With the assistance of our actuarial specialists:
 - We independently developed an estimate of the reserves for selected classes of business, compared our estimates to those booked by the Company, and evaluated the differences.
 - We evaluated the Company's methodologies against recognized actuarial practices for the remaining classes. We also evaluated the assumptions used by the Company using our industry knowledge and experience and other analytical procedures.
 - We compared the results of the reserve study prepared by third-party actuaries to management's best estimate and evaluated the differences.

/s/ Deloitte Ltd.

Hamilton, Bermuda

February 24, 2023

We have served as the Company's auditor since 2001.

AXIS CAPITAL HOLDINGS LIMITED
CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2022 AND 2021

	<u>2022</u>	<u>2021</u>
	(in thousands)	
Assets		
Investments:		
Fixed maturities, available for sale, at fair value (Amortized cost 2022: \$12,176,473; 2021: \$12,241,782 Allowance for expected credit losses 2022: \$11,733; 2021: \$313)	\$ 11,326,894	\$ 12,313,200
Fixed maturities, held to maturity, at amortized cost (Fair value 2022: \$674,743; 2021: 445,033 Allowance for expected credit losses 2022: \$nil; 2021: \$nil)	698,351	446,016
Equity securities, at fair value (Cost 2022: \$494,356; 2021: \$528,864)	485,253	655,675
Mortgage loans, held for investment, at fair value (Allowance for expected credit losses 2022: \$nil; 2021: \$nil)	627,437	594,088
Other investments, at fair value	996,751	947,982
Equity method investments	148,288	146,293
Short-term investments, at fair value	70,310	31,063
Total investments	14,353,284	15,134,317
Cash and cash equivalents	751,415	844,592
Restricted cash and cash equivalents	423,238	473,098
Accrued interest receivable	94,418	64,350
Insurance and reinsurance premium balances receivable (Allowance for expected credit losses 2022: \$9,521; 2021: \$7,567)	2,733,464	2,622,676
Reinsurance recoverable on unpaid losses and loss expenses (Allowance for expected credit losses 2022: \$30,715; 2021: \$29,554)	5,831,172	5,017,611
Reinsurance recoverable on paid losses and loss expenses	539,676	642,215
Deferred acquisition costs	473,569	465,593
Prepaid reinsurance premiums	1,550,370	1,377,358
Receivable for investments sold	16,052	4,555
Goodwill	100,801	100,801
Intangible assets	197,800	208,717
Operating lease right-of-use assets	92,214	103,295
Other assets	438,338	309,792
Total assets	\$ 27,595,811	\$ 27,368,970
Liabilities		
Reserve for losses and loss expenses	\$ 15,168,863	\$ 14,653,094
Unearned premiums	4,361,447	4,090,676
Insurance and reinsurance balances payable	1,522,764	1,324,620
Debt	1,312,314	1,310,975
Federal Home Loan Bank advances	81,388	—
Payable for investments purchased	19,693	31,543
Operating lease liabilities	102,577	119,512
Other liabilities	386,855	427,894
Total liabilities	22,955,901	21,958,314
Commitments and Contingencies		
Shareholders' equity		
Preferred shares	550,000	550,000
Common shares (shares issued 2022: 176,580; 2021: 176,580 shares outstanding 2022: 84,668; 2021: 84,774)	2,206	2,206
Additional paid-in capital	2,366,253	2,346,179
Accumulated other comprehensive income (loss)	(760,300)	56,536
Retained earnings	6,247,022	6,204,745
Treasury shares, at cost (2022: 91,912; 2021: 91,806)	(3,765,271)	(3,749,010)
Total shareholders' equity	4,639,910	5,410,656
Total liabilities and shareholders' equity	\$ 27,595,811	\$ 27,368,970

See accompanying notes to Consolidated Financial Statements.

AXIS CAPITAL HOLDINGS LIMITED
CONSOLIDATED STATEMENTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, 2022, 2021, AND 2020

	<u>2022</u>	<u>2021</u>	<u>2020</u>
	(in thousands, except for per share amounts)		
Revenues			
Net premiums earned	\$ 5,160,326	\$ 4,709,850	\$ 4,371,309
Net investment income	418,829	454,301	349,601
Other insurance related income (loss)	13,073	23,295	(8,089)
Net investment gains:			
Allowance for expected credit losses	(11,421)	11	(323)
Impairment losses	(12,568)	(22)	(1,486)
Other realized and unrealized investment gains (losses)	(432,800)	134,290	130,942
Total net investment gains (losses)	(456,789)	134,279	129,133
Total revenues	5,135,439	5,321,725	4,841,954
Expenses			
Net losses and loss expenses	3,242,410	3,008,783	3,281,252
Acquisition costs	1,022,017	921,834	929,517
General and administrative expenses	680,343	663,304	579,790
Foreign exchange losses (gains)	(157,945)	315	81,069
Interest expense and financing costs	63,146	62,302	75,049
Reorganization expenses	31,426	—	7,881
Amortization of value of business acquired	—	3,854	5,139
Amortization of intangible assets	10,917	12,424	11,390
Total expenses	4,892,314	4,672,816	4,971,087
Income (loss) before income taxes and interest in income (loss) of equity method investments	243,125	648,909	(129,133)
Income tax (expense) benefit	(22,037)	(62,384)	12,321
Interest in income (loss) of equity method investments	1,995	32,084	(3,612)
Net income (loss)	223,083	618,609	(120,424)
Preferred share dividends	30,250	30,250	30,250
Net income (loss) available (attributable) to common shareholders	\$ 192,833	\$ 588,359	\$ (150,674)
Per share data			
Earnings (loss) per common share:			
Earnings (loss) per common share	\$ 2.27	\$ 6.95	\$ (1.79)
Earnings (loss) per diluted common share	\$ 2.25	\$ 6.90	\$ (1.79)
Weighted average common shares outstanding	84,864	84,707	84,262
Weighted average diluted common shares outstanding	85,669	85,291	84,262

See accompanying notes to Consolidated Financial Statements.

AXIS CAPITAL HOLDINGS LIMITED
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
FOR THE YEARS ENDED DECEMBER 31, 2022, 2021, AND 2020

	<u>2022</u>	<u>2021</u>	<u>2020</u>
	(in thousands)		
Net income (loss)	\$ 223,083	\$ 618,609	\$ (120,424)
Other comprehensive income (loss), net of tax:			
Available for sale investments:			
Unrealized gains (losses) arising during the year for which an allowance for expected credit losses has not been recognized	(1,043,625)	(271,447)	317,166
Unrealized gains (losses) arising during the year for which an allowance for expected credit losses has been recognized	(67,150)	81	(40)
Adjustment for reclassification of net realized (gains) losses and impairment losses recognized in net income (loss)	304,925	(87,114)	(78,012)
Unrealized gains (losses) arising during the year, net of reclassification adjustment	<u>(805,850)</u>	<u>(358,480)</u>	<u>239,114</u>
Foreign currency translation adjustment	(10,986)	621	3,571
Total other comprehensive income (loss), net of tax	(816,836)	(357,859)	242,685
Comprehensive income (loss)	\$ (593,753)	\$ 260,750	\$ 122,261

See accompanying notes to Consolidated Financial Statements.

AXIS CAPITAL HOLDINGS LIMITED
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2022, 2021, AND 2020

	2022	2021	2020
	(in thousands)		
Preferred shares			
Balance at beginning of year	\$ 550,000	\$ 550,000	\$ 775,000
Shares repurchased	—	—	(225,000)
Balance at end of year	550,000	550,000	550,000
Common shares (par value)			
Balance at beginning and end of year	2,206	2,206	2,206
Additional paid-in capital			
Balance at beginning of year	2,346,179	2,330,054	2,317,212
Treasury shares reissued	(31,175)	(24,655)	(22,732)
Share-based compensation expense	51,249	40,780	35,574
Balance at end of year	2,366,253	2,346,179	2,330,054
Accumulated other comprehensive income (loss)			
Balance at beginning of year	56,536	414,395	171,710
Unrealized gains (losses) on available for sale investments, net of tax:			
Balance at beginning of year	62,155	420,635	181,521
Unrealized gains (losses) arising during the year, net of reclassification adjustment	(805,850)	(358,480)	239,114
Balance at end of year	(743,695)	62,155	420,635
Cumulative foreign currency translation adjustments, net of tax:			
Balance at beginning of year	(5,619)	(6,240)	(9,811)
Foreign currency translation adjustment	(10,986)	621	3,571
Balance at end of year	(16,605)	(5,619)	(6,240)
Balance at end of year	(760,300)	56,536	414,395
Retained earnings			
Balance at beginning of year	6,204,745	5,763,607	6,056,686
Net income (loss)	223,083	618,609	(120,424)
Preferred share dividends ⁽¹⁾	(30,250)	(30,250)	(30,250)
Common share dividends ⁽¹⁾	(150,556)	(147,221)	(142,405)
Balance at end of year	6,247,022	6,204,745	5,763,607
Treasury shares, at cost			
Balance at beginning of year	(3,749,010)	(3,764,568)	(3,778,806)
Shares repurchased	(48,981)	(10,242)	(10,382)
Shares reissued	32,720	25,800	24,620
Balance at end of year	(3,765,271)	(3,749,010)	(3,764,568)
Total shareholders' equity	\$ 4,639,910	\$ 5,410,656	\$ 5,295,694

(1) Refer to Note 15 'Shareholders' Equity' for details on dividends declared and paid related to the Company's common and preferred shares.

See accompanying notes to Consolidated Financial Statements.

AXIS CAPITAL HOLDINGS LIMITED
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2022, 2021, AND 2020

	2022	2021	2020
	(in thousands)		
Cash flows from operating activities:			
Net income (loss)	\$ 223,083	\$ 618,609	\$ (120,424)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Net investment (gains) losses	456,789	(134,279)	(129,133)
Net realized and unrealized gains on other investments	(55,757)	(180,329)	(16,059)
Amortization of fixed maturities	26,138	35,839	32,893
Interest in (income) loss of equity method investments	(1,995)	(32,084)	3,612
Amortization of value of business acquired	—	3,854	5,139
Other amortization and depreciation	68,288	66,977	65,797
Share-based compensation expense, net of cash payments	48,494	37,744	29,005
<i>Changes in:</i>			
Accrued interest receivable	(30,432)	633	13,097
Reinsurance recoverable on unpaid losses and loss expenses	(825,608)	(527,362)	(618,040)
Reinsurance recoverable on paid losses and loss expenses	101,691	(207,429)	(105,820)
Deferred acquisition costs	(10,548)	(34,386)	60,828
Prepaid reinsurance premiums	(176,498)	(185,646)	(94,122)
Reserve for losses and loss expenses	544,459	737,342	1,178,292
Unearned premiums	287,082	409,858	62,999
Insurance and reinsurance balances, net	82,878	349,502	72,503
Other items	(45,848)	155,979	(97,064)
Net cash provided by operating activities	692,216	1,114,822	343,503
Cash flows from investing activities:			
Purchases of:			
Fixed maturities, available for sale	(7,476,440)	(12,133,755)	(10,494,198)
Fixed maturities, held to maturity	(255,610)	(196,775)	—
Equity securities	(94,324)	(137,247)	(117,883)
Mortgage loans	(117,023)	(145,832)	(199,259)
Other investments	(147,717)	(263,712)	(166,602)
Short-term investments	(176,968)	(159,056)	(365,170)
Proceeds from the sale of:			
Fixed maturities, available for sale	6,110,148	9,203,241	9,784,137
Equity securities	138,542	24,862	119,381
Other investments	156,719	324,810	166,976
Short-term investments	116,752	177,672	171,976
Proceeds from redemption of fixed maturities, available for sale	1,018,922	1,817,482	1,526,396
Proceeds from redemption of fixed maturities, held to maturity	3,541	155,809	—
Proceeds from redemption of short-term investments	20,124	111,417	69,707
Proceeds from the repayment of mortgage loans	84,365	145,621	39,121
Purchase of other assets	(36,829)	(38,732)	(44,661)
Net cash provided by (used in) investing activities	(655,798)	(1,114,195)	489,921
Cash flows from financing activities:			
Redemption of senior notes	—	—	(500,000)
Repurchase of preferred shares	—	—	(225,000)
Repurchase of common shares - open market	(34,987)	—	—
Taxes paid on withholding shares	(13,994)	(10,242)	(10,382)
Dividends paid - common shares	(149,341)	(145,603)	(141,590)
Dividends paid - preferred shares	(30,250)	(30,250)	(31,831)
Federal Home Loan Bank advances, net	78,950	—	—
Net cash used in financing activities	(149,622)	(186,095)	(908,803)
Effect of exchange rate changes on foreign currency cash, cash equivalents and restricted cash	(29,833)	(74)	2,154
Decrease in cash, cash equivalents and restricted cash	(143,037)	(185,542)	(73,225)
Cash, cash equivalents and restricted cash - beginning of year	1,317,690	1,503,232	1,576,457
Cash, cash equivalents and restricted cash - end of year	\$ 1,174,653	\$ 1,317,690	\$ 1,503,232

See accompanying notes to Consolidated Financial Statements.

AXIS CAPITAL HOLDINGS LIMITED
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
FOR THE YEARS ENDED DECEMBER 31, 2022, 2021, AND 2020

Supplemental disclosures of cash flow information:

Income taxes paid	\$	33,418	\$	45,083	\$	4,414
Interest paid	\$	59,886	\$	59,400	\$	54,108

Supplemental disclosures of cash flow information:

In 2022, the Company borrowed \$81 million under the FHLB program, of which \$2 million was settled by way of a transfer of member stock (refer to Note 11 '*Federal Home Loan Advances*').

In 2021, the transfer of securities with a fair value of \$405 million from fixed maturities, available for sale to fixed maturities, held to maturity was treated as a non-cash activity in the consolidated statement of cash flows (refer to Note 3 '*Investments*').

See accompanying notes to Consolidated Financial Statements.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

1. ORGANIZATION

AXIS Capital Holdings Limited ("AXIS Capital" and together with its wholly-owned subsidiaries the "Company"), was incorporated on December 9, 2002, under the laws of Bermuda. The Company is a global specialty underwriter and provider of insurance and reinsurance solutions. The Company's principal operating subsidiaries, located in Bermuda, the United States ("U.S."), Europe, Singapore and Canada, are described below:

- AXIS Specialty Limited ("AXIS Specialty Bermuda"), a Bermuda domiciled company, is licensed to provide specialty lines insurance and treaty reinsurance products on a worldwide basis. In addition, AXIS Specialty Bermuda conducts insurance and reinsurance business through its branch in Singapore, AXIS Specialty Limited (Singapore Branch).
- AXIS Insurance Company, domiciled in Illinois, and AXIS Reinsurance Company, domiciled in New York, together with AXIS Reinsurance Company (Canadian Branch) are licensed to offer a range of specialty lines insurance and treaty reinsurance products to a variety of niche markets on a worldwide basis. AXIS Surplus Insurance Company, domiciled in Illinois, is eligible to write insurance on a surplus lines basis.
- AXIS Specialty Europe SE ("AXIS Specialty Europe") is a European public limited liability company, incorporated as a non-life insurer under the laws of Ireland. It is a Societas Europaea (SE), or European society company registered in accordance with company law of the E.U. AXIS Specialty Europe also conducts insurance business through its branch in the United Kingdom ("U.K."), AXIS Specialty Europe SE ("UK Branch").

Pursuant to the U.K.'s withdrawal from the European Union on January 31, 2020, AXIS Specialty Europe submitted an application to have its UK Branch fully regulated by the Prudential Regulation Authority ("PRA") and the U.K. Financial Conduct Authority ("FCA") as a third-country branch. This application was approved by the PRA and FCA on October 28, 2022. Therefore, the UK Branch of AXIS Specialty Europe SE is now fully regulated in the U.K.

- AXIS Re SE is a European public limited liability company, incorporated as a reinsurer under the laws of Ireland. AXIS Re SE is also a Societas Europaea (SE). AXIS Re SE also conducts reinsurance business through its branch in Switzerland, AXIS Re SE, Dublin (Zurich Branch).
- The Company operates in the Lloyd's of London ("Lloyd's") market through its corporate members AXIS Corporate Capital UK Limited and AXIS Corporate Capital UK II Limited, which provide 70% and 30%, respectively, of AXIS Syndicate 1686's ("Syndicate 1686") capital support. AXIS Syndicate 1686 is managed by AXIS Managing Agency Ltd. ("AXIS Managing Agency").
- On October 2, 2017, AXIS Specialty UK Holdings Limited, a wholly-owned subsidiary of the Company, acquired a 100% ownership interest in Novae Group plc ("Novae"). AXIS Corporate Capital UK II Limited was the sole corporate member of Novae Syndicate 2007 ("Syndicate 2007"). Effective January 1, 2018, AXIS Managing Agency commenced management and oversight of Syndicate 2007. Effective January 1, 2019, Syndicate 2007 ceased accepting new business and was placed into run-off. Effective January 1, 2021, the Reinsurance to Close of the 2018 year of account of Syndicate 2007 was completed.
- AXIS ILS, Ltd. (formerly AXIS Ventures Limited ("AXIS Ventures")) and AXIS Reinsurance Managers Limited ("AXIS Reinsurance Managers"), regulated by the BMA as insurance managers, generate fee income from services provided to strategic capital partners. Effective September 23, 2020, AXIS Ventures deregistered as an insurance manager with the BMA.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

These consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and the rules and regulations of the U.S. Securities and Exchange Commission ("SEC") and include AXIS Capital Holdings Limited and its wholly-owned subsidiaries.

All inter-company accounts and transactions have been eliminated.

To facilitate comparison of information across periods, certain reclassifications have been made to prior year amounts to conform to the current year's presentation.

Tabular dollar and share amounts are in thousands, with the exception of per share amounts. All amounts are reported in U.S. dollars.

Use of Estimates

The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amount of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. While management believes that the amounts included in the consolidated financial statements reflect its best estimates and assumptions, actual results could differ from those estimates. The Company's principal estimates include:

- reserve for losses and loss expenses;
- reinsurance recoverable on unpaid losses and loss expenses, including the allowance for expected credit losses;
- gross premiums written and net premiums earned;
- fair value measurements of financial assets and liabilities; and
- the allowance for credit losses associated with fixed maturities, available for sale.

The Company's significant accounting policies are as follows:

a) Investments

Fixed Maturities, Available for Sale, at Fair Value and Fixed Maturities, Held to Maturity, at Amortized Cost

Fixed maturities classified as available for sale are reported at fair value (refer to Note 6 'Fair Value Measurements') and are presented net of an allowance for expected credit losses. The change in fair values of fixed maturities, net of tax is recognized in accumulated other comprehensive income (loss) ("AOCI") in the total shareholders' equity.

Fixed maturities are classified as held to maturity when the Company has the positive intent and ability to hold the securities to maturity or redemption. Fixed maturities classified as held to maturity are reported at amortized cost and are presented net of an allowance for expected credit losses.

Net investment income includes interest income and the amortization of market premiums and discounts and is presented net of investment expenses. Investment income is recognized when earned. Purchases and sales of fixed maturities are recorded on a trade-date basis and realized gains (losses) on sales of fixed maturities are determined based on the specific identification method. Realized gains (losses) on fixed maturities are included in net investment gains (losses) in the consolidated statements of operations.

The Company recognizes investment income from fixed maturities based on the constant effective yield method, which includes an adjustment for estimated principal repayments, if applicable. The effective yield used to determine the amortization of fixed maturities subject to prepayment risk (e.g., asset-backed, mortgage-backed and other structured

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

securities) is recalculated and adjusted periodically based on historical and/or projected future cash flows. Adjustments to the yield for highly rated prepayable fixed maturities are accounted for using the retrospective method. Adjustments to the yield for other prepayable fixed maturities are accounted for using the prospective method.

Credit Losses - Fixed Maturities, Available for Sale

A fixed maturity, available for sale security is impaired if the fair value of the investment is below amortized cost. On a quarterly basis, the Company evaluates all fixed maturities, available for sale securities for impairment losses.

If a fixed maturity, available for sale security is impaired and the Company intends to sell the security or it is more likely than not that the Company will be required to sell the security before its anticipated recovery, the full amount of the impairment loss is charged to net income (loss) and is included in net investment gains (losses).

In instances where the Company intends to hold the impaired fixed maturity, available for sale security the Company determines whether the decline in fair value below the amortized cost basis has resulted from a credit loss or other factors. If the Company does not anticipate to fully recover the amortized cost, an allowance for expected credit losses is established. The allowance for expected credit losses is limited to the difference between a security's amortized cost basis and its fair value. The allowance for expected credit losses is charged to net income (loss) and is included in net investment gains (losses).

On a quarterly basis, the Company assesses whether unrealized losses on fixed maturities, available for sale represent credit impairments by considering the following factors:

- a. the extent to which the fair value is less than amortized cost;
- b. adverse conditions related to the security, industry, or geographical area;
- c. downgrades in the security's credit rating by a credit rating agency; and
- d. failure of the issuer to make scheduled principal or interest payments.

The length of time a security has been in an unrealized loss position no longer impacts the determination of whether a credit loss exists.

If a security is assessed to be credit impaired, it is subject to a discounted cash flow analysis by comparing the present value of expected future cash flows with the amortized cost basis. If the present value of expected cash flows is less than the amortized cost, a credit loss exists and an allowance for expected credit losses is recognized. If the present value of expected future cash flows is equal to or greater than the amortized cost basis, an expected credit loss does not exist.

The non-credit impairment amount of the loss (i.e., related to interest rates, market conditions, etc.) is recognized in other comprehensive income.

The Company reports accrued interest receivable related to available for sale debt securities separately and has elected not to measure an allowance for expected credit losses for accrued interest receivable. Write-offs of accrued interest receivable balances are recognized in net investment gains (losses) in the period in which they are deemed uncollectible.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Credit Losses - Fixed Maturities, Held to Maturity

A fixed maturity, held to maturity security is impaired if the fair value of the investment is below amortized cost. On a quarterly basis, the Company evaluates all fixed maturities, held to maturity securities for impairment losses.

The Company's fixed maturity, held to maturity securities portfolio consists of asset-backed securities ("ABS") and corporate debt securities.

The Company's ABS, held to maturity consist of CLO debt tranching securities. The Company uses a scenario-based approach to review its CLO debt portfolio and reviews subordination levels of these securities to determine their ability to absorb credit losses of the underlying collateral. If losses are forecast to be below the subordination level for a tranche held by the Company, the security is determined not to have a credit loss.

To estimate expected credit losses for corporate debt securities, held to maturity, the Company's projected cash flows are primarily driven by assumptions regarding the severity of loss, which is a function of the probability of default and projected recovery rates. The Company's default and recovery rates are based on credit ratings, credit analysis and macroeconomic forecasts.

The allowance for expected credit losses is estimated based on the Company's analysis of projected lifetime losses. The allowance for expected credit losses is charged to net income (loss) and is recognized in net investment gains (losses). Any adjustment to the allowance for expected credit losses is recognized in the period in which it is determined.

Equity Securities, at Fair Value

Equity securities are reported at fair value. The change in the fair values of equity securities, net of tax is recognized in net investment gains (losses) in the consolidated statements of operations.

Net investment income includes dividend income and is presented net of investment expenses. Investment income is recognized when earned. Purchases and sales of equity securities are recorded on a trade-date basis and realized gains (losses) on sales of equity securities are determined based on the specific identification method. Realized gains (losses) on equity securities are included in net investment gains (losses) in the consolidated statements of operations.

Mortgage Loans, Held for Investment, at Fair Value

Mortgage loans, held for investment are reported at amortized cost which is calculated as the unpaid principal balance, adjusted for any unamortized premium or discount, deferred fees or expenses.

Interest income and prepayment fees are recognized when earned. Interest income is recognized based on an effective yield method which gives effect to the amortization of premiums and accretion of discounts.

Mortgage loans, held for investment are presented net of an allowance for expected credit losses. The allowance for expected credit losses is estimated based on the Company's analysis of projected lifetime losses. These projections take into account the Company's experience with credit quality indicators, loan losses, defaults, loss severity, and loss expectations for loans with similar risk characteristics. These evaluations are revised as conditions change and new information becomes available.

The allowance for expected credit losses is recognized in net investment gains (losses). Any adjustment to the allowance for expected credit losses is recognized in the period in which it is determined.

Other Investments

Other investments are recorded at fair value (refer to Note 6 'Fair Value Measurements'). Changes in fair value and realized gains (losses) are reported in net investment income in the consolidated statements of operations.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Equity Method Investments

Investments in which the Company has significant influence over the operating and financial policies of the investee are classified as equity method investments and are accounted for using the equity method of accounting. In applying the equity method of accounting, investments are initially recorded at cost and are subsequently adjusted based on the Company's proportionate share of net income or loss of the investee. Adjustments are based on the most recently available financial information from the investee. Changes in the carrying value of these investments are recorded in net income (loss) as interest in income (loss) of equity method investments.

Short-term Investments

Short-term investments primarily comprise highly liquid debt securities with maturities greater than three months but less than one year from the date of purchase. These investments are carried at amortized cost, which approximates fair value.

b) Cash and Cash Equivalents

Cash equivalents include money-market funds, fixed interest deposits and reverse repurchase agreements with a maturity of under 90 days when purchased. Cash and cash equivalents are recorded at amortized cost, which approximates fair value due to the short-term, liquid nature of these securities. Restricted cash primarily relates to funds held in trust to support obligations in regulatory jurisdictions where the Company operates as a non-admitted carrier and to support the underwriting activities at Lloyd's.

c) Premiums and Acquisition Costs

Premiums

Insurance premiums written are recorded in accordance with the terms of the underlying policies.

Reinsurance premiums are recorded at the inception of the contract based on estimates received from ceding companies. For multi-year contracts insurance and reinsurance premiums are recorded at the inception of the contract based on management's best estimate of total premiums to be received. Premiums are recognized on an annual basis for multi-year contracts where the cedant has the ability to unilaterally commute or cancel coverage within the term of the contract.

Any adjustments to insurance and reinsurance premium estimates are recognized in the period in which they are determined.

Insurance and reinsurance premiums are earned evenly over the period during which the Company is exposed to the underlying risk, which is generally one to two years with the exception of multi-year contracts. Unearned premiums represent the portion of premiums which relate to the unexpired risks under contracts in force.

Reinstatement premiums are recognized and earned at the time a loss event occurs and losses are recorded, where the coverage limits for the remaining life of the contract are reinstated under pre-defined contract terms. The recognition of reinstatement premiums is based on estimates of losses and loss expenses, which reflects management's judgment (refer to Note 2(d) 'Losses and Loss Expenses' below).

Insurance and reinsurance premium balances receivable ("premium balances receivable") are reviewed for impairment at least quarterly and are presented net of an allowance for expected credit losses. The allowance for expected credit losses is estimated based on the Company's analysis of amounts due, historical delinquencies and write-offs, and current economic conditions, together with reasonable and supportable forecasts of short-term economic conditions.

The allowance for expected credit losses is recognized in net income (loss). Any adjustment to the allowance for expected credit losses is recognized in the period in which it is determined.

Write-offs of premium balances receivable, together with associated allowances for expected credit losses, are recognized in the period in which balances are deemed uncollectible. The Company does not have a history of significant write-offs.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Acquisition Costs

Acquisition costs vary with and are directly related to the successful acquisition efforts of acquiring new or renewing existing insurance and reinsurance contracts and consist primarily of fees and commissions paid to brokers and premium taxes. In addition, certain of our contracts include profit commission provisions or other adjustable features that are estimated based on expected losses and loss expenses for those contracts. Acquisition costs are shown net of commissions on reinsurance purchased. Net acquisition costs are deferred and charged to net income (loss) as the related premium is earned. Insurance and reinsurance premium balances receivable is presented net of acquisition costs when contract terms provide for the right of offset.

Anticipated losses and loss expenses, other costs and investment income related to these premiums are considered in assessing the recoverability of deferred acquisition costs. Deferred acquisition cost amounts that are assessed to be irrecoverable are recognized in net income (loss) in the period in which the determination is made. Compensation expenses for personnel involved in contract acquisition, and advertising costs, are charged to net income (loss) when incurred.

d) Losses and Loss Expenses

Reserve for losses and loss expenses represents an estimate of the unpaid portion of the ultimate liability for losses and loss expenses for insured and reinsured events that have occurred at or before the balance sheet date. These amounts reflect claims that have been reported ("case reserves") and claims that have been incurred but have not yet been reported ("IBNR") and are reduced for estimated amounts of salvage and subrogation recoveries.

The Company reviews its reserve for losses and loss expenses on a quarterly basis. Case reserves are primarily established based on amounts reported by clients and/or their brokers. Management estimates IBNR after reviewing detailed actuarial analyses and applying informed judgment regarding qualitative factors that may not be fully captured in the actuarial estimates. A variety of actuarial methods are utilized in this process, including the Expected Loss Ratio, Chain Ladder and Bornhuetter-Ferguson methods. The estimate is highly dependent on management's judgment as to which method(s) are most appropriate for a particular accident/underwriting year and line of business. Historical claims data may be supplemented with industry benchmarks when applying these methodologies.

Any adjustments to estimates of reserve for losses and loss expenses are recognized in the period in which they are determined. While the Company believes that its reserves for losses and loss expenses are adequate, this estimate requires significant judgment and new information, events or circumstances may result in ultimate losses that are materially greater or less than provided for in the consolidated balance sheets.

e) Reinsurance

In the normal course of business, the Company purchases facultative and treaty reinsurance protection to limit its ultimate losses from catastrophic events and to reduce its loss aggregation risk. The premiums paid to reinsurers (i.e., ceded premiums written) are recognized over the coverage period. Prepaid reinsurance premiums represent the portion of premiums ceded which relate to the unexpired term of the contracts in force. Reinstatement premiums are recognized and earned at the time a loss event occurs and losses are recorded, where the coverage limits for the remaining life of the contract are reinstated under pre-defined contract terms.

Reinsurance recoverable on unpaid losses and loss expenses ("reinsurance recoverables") related to case reserves is estimated on a case-by-case basis by applying the terms of applicable reinsurance cover to individual case reserve estimates. Reinsurance recoverables related to IBNR is generally developed as part of the Company's loss reserving process, therefore, its estimation is subject to similar risks and uncertainties as the estimation of IBNR. Estimates of amounts to be ceded under excess of loss reinsurance contracts also take into account pricing information for those contracts and require greater judgment than estimates for proportional contracts.

Reinsurance recoverable balances are reviewed for impairment at least quarterly and are presented net of an allowance for expected credit losses.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

A case-specific allowance for expected credit losses against reinsurance recoverables that we deem are unlikely to be collected in full, is estimated based on the Company's analysis of amounts due, historical delinquencies and write-offs. In addition, a default analysis is used to estimate an allowance for expected credit losses on the remainder of the reinsurance recoverable balance. The principal components of the default analysis are reinsurance recoverable balances by reinsurer and default factors applied to estimate uncollectible amounts based on reinsurers' credit ratings and the length of collection periods. The default factors are based on a model developed by a major rating agency. The default analysis considers current and forecasted economic conditions.

The allowance for expected credit losses is recognized in net income (loss). Any adjustment to the allowance for expected credit losses is recognized in the period in which it is determined. Write-offs of reinsurance recoverable balances, together with associated allowances for expected credit losses, are recognized in the period in which balances are deemed uncollectible. The Company does not have a history of significant write-offs.

Retroactive Reinsurance

Retroactive reinsurance reimburses a ceding company for liabilities incurred as a result of past insurable events covered under contracts subject to the reinsurance. In certain instances, reinsurance contracts cover losses both on a prospective basis and on a retroactive basis and where practical the Company bifurcates the prospective and retroactive elements of these reinsurance contracts and accounts for each element separately. Initial gains in connection with retroactive reinsurance contracts are deferred and amortized into net income over the claims settlement period while losses are recognized immediately. When changes in the estimated amount recoverable from the reinsurer or in the timing of receipts related to that amount occur, a cumulative amortization adjustment is recognized in net income in the period in which the change is determined so that the deferred gain reflects the balance that would have existed had the revised estimate been available at the inception of the reinsurance transaction.

f) Foreign Exchange

The functional currency of the Company and the majority of its subsidiaries is the U.S. dollar. All foreign currency transactions are initially measured and recorded in functional currency using the rates of exchange prevailing at the transaction date.

Monetary assets and liabilities denominated in foreign currency are remeasured to functional currency at the rates of exchange in effect at the balance sheet date with the resulting foreign exchange losses (gains) generally being recognized in the consolidated statements of operations. Foreign exchange losses (gains) related to available for sale investments denominated in foreign currency represent an unrealized appreciation (depreciation) in the market value of the securities and are included in AOCI. Non-monetary assets and liabilities denominated in foreign currency are not subsequently remeasured.

The Company's reporting currency is the U.S. dollar. Assets and liabilities of the Company's subsidiaries and branches where the functional currency is not the U.S. dollar, are translated into U.S. dollars using the rates of exchange in effect at the balance sheet date, and revenue and expenses are translated using the weighted average foreign exchange rates for the period. The effect of translation adjustments is reported as a separate component of AOCI in total shareholders' equity.

g) Share-based Compensation

The Company is authorized to issue restricted shares, restricted stock units, performance restricted stock units, stock options, stock appreciation rights and other equity-based awards to its employees and directors. The Company's plan includes share-settled and cash-settled service and performance awards.

Restricted Stock Units - Share-Settled and Cash-Settled

The fair value of share-settled and cash-settled service awards is based on market value of the Company's common shares measured at the grant date and is expensed over the requisite service period. The fair value of the cash-settled service awards is recognized as a liability in the consolidated balance sheets and is remeasured at the end of each reporting period. The Company recognizes forfeitures when they occur.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Performance Restricted Stock Units - Share-Settled and Cash-Settled

The fair value of share-settled performance awards which include a market condition is measured on the grant date using a Monte Carlo simulation model which requires inputs including share price, expected volatility, expected term, expected dividend yield and risk-free interest rates. The fair value of share-settled and cash-settled performance awards which include a performance condition is based on market value of the Company's common shares measured at the grant date.

The fair value of share-settled and cash-settled performance awards is recognized on a straight-line basis over the requisite service period. The fair value of the cash-settled performance awards is recognized as a liability in the consolidated balance sheets and is remeasured at the end of each reporting period. The Company recognizes forfeitures when they occur.

h) Derivative Instruments

The Company may enter into derivative instruments such as futures, options, interest rate swaps and foreign currency forward contracts as part of its overall foreign currency risk management strategy, to obtain exposure to a particular financial market or for yield enhancement.

From time to time the Company may also enter into insurance and reinsurance contracts that meet the Financial Accounting Standards Board's ("FASB") definition of a derivative contract.

The Company measures all derivative instruments at fair value (refer to Note 6 '*Fair Value Measurements*') and recognizes these instruments in either other assets or other liabilities in the consolidated balance sheets. Subsequent changes in fair value and realized gains (losses) are recognized in net income (loss) in the consolidated statements of operations.

i) Goodwill and Intangible Assets

The Company recognizes goodwill and other intangible assets in connection with certain acquisitions. Goodwill represents the excess of the purchase price paid over the fair value of the net assets acquired in these acquisitions and is not amortized. Other intangible assets with a finite life are amortized over the estimated useful life of the intangible asset. Other intangible assets with an indefinite life are not amortized.

The Company tests goodwill and indefinite intangible assets for potential impairment during the fourth quarter each year and between annual tests if an event occurs or changes in circumstances indicate that the asset is impaired. Such events or circumstances may include an economic downturn in a geographic market or a change in the assessment of future operations.

For the purpose of evaluating goodwill for impairment, the Company may first perform a qualitative assessment to determine whether it is necessary to perform a quantitative goodwill impairment test. If determined to be necessary, the quantitative test compares the fair value of a reporting unit with its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. If the carrying amount of the reporting unit exceeds the fair value, an impairment loss is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

For the purpose of evaluating indefinite lived intangibles for impairment, the Company may first perform a qualitative assessment to determine whether it is necessary to perform the quantitative impairment test. If the Company elects to perform a qualitative assessment, it first assesses qualitative factors to determine whether it is more likely than not that an indefinite lived intangible asset is impaired. If the Company determines that it is more likely than not that the indefinite lived intangible asset is impaired, the Company performs the quantitative impairment test.

For the purposes of evaluating goodwill and indefinite lived intangible assets for impairment, the Company has an unconditional option to bypass the qualitative assessment in any period and proceed directly to performing the quantitative impairment test. The Company may resume performing the qualitative assessment in any subsequent period.

For other definite lived intangible assets the Company tests for recoverability whenever events or changes in circumstances indicate its carrying amount may not be recoverable. The Company recognizes an impairment loss if the carrying amount of

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

the asset is not recoverable and exceeds its fair value. The carrying amount of a definite lived intangible asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset.

If goodwill or an intangible asset is impaired, the carrying value of the asset is reduced to fair value and a corresponding expense is recorded in the consolidated statements of operations.

j) Income Taxes

Certain subsidiaries and branches of the Company operate in jurisdictions where they are subject to taxation. Current and deferred income taxes are charged or credited to net income (loss), or in certain cases to AOCI, based on enacted tax laws and rates applicable in the relevant jurisdiction in the period in which the tax becomes accruable or realizable. Deferred income taxes are provided for all temporary differences between the bases of assets and liabilities reported in the consolidated balance sheets and those reported in the various jurisdictional tax returns. When the assessment indicates that it is more likely than not that a portion of a deferred tax asset will not be realized in the foreseeable future, a valuation allowance against deferred tax assets is recorded. The Company recognizes the tax benefits of uncertain tax positions only when the position is more-likely-than-not to be sustained on audit by the relevant taxing authorities.

k) Treasury Shares

Common shares repurchased by the Company, not subsequently canceled are classified as treasury shares and are recorded at cost. This results in a reduction of shareholders' equity in the consolidated balance sheets. The Company uses the average cost method to determine the cost of shares reissued from treasury.

l) Leases

The Company recognizes a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term related to office property and equipment leases.

The Company accounts for non-lease components separately from lease components. As a result, the non-lease components associated with the Company's leases are not included in the lease liabilities and right-of-use assets in the Company's consolidated balance sheets.

The Company does not record office property and equipment leases with an initial term of 12 months or less (short-term) in the Company's consolidated balance sheets.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

3. SEGMENT INFORMATION

AXIS Capital's underwriting operations are organized around its global underwriting platforms, AXIS Insurance and AXIS Re. The Company has determined that it has two reportable segments, insurance and reinsurance. The Company does not allocate its assets by segment, with the exception of goodwill and intangible assets.

Insurance

The Company's insurance segment offers specialty insurance products to a variety of niche markets on a worldwide basis. The product lines in this segment are professional lines, property, liability, cyber, marine and aviation, accident and health, and credit and political risk.

Reinsurance

The Company's reinsurance segment provides treaty reinsurance to insurance companies on a worldwide basis. The product lines in this segment are liability, accident and health, professional lines, credit and surety, motor, agriculture, marine and aviation, catastrophe, property and engineering.

The following tables present the underwriting results of the Company's reportable segments, as well as the carrying amounts of allocated goodwill and intangible assets:

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

3. SEGMENT INFORMATION (CONTINUED)

At and year ended December 31, 2022	Insurance	Reinsurance	Total
Gross premiums written	\$ 5,585,581	\$ 2,629,014	\$ 8,214,595
Net premiums written	3,377,906	1,885,150	5,263,056
Net premiums earned	3,134,155	2,026,171	5,160,326
Other insurance related income	559	12,514	13,073
Net losses and loss expenses	(1,785,854)	(1,456,556)	(3,242,410)
Acquisition costs	(577,838)	(444,179)	(1,022,017)
Underwriting-related general and administrative expenses	(443,704)	(106,585)	(550,289)
Underwriting income	<u>\$ 327,318</u>	<u>\$ 31,365</u>	358,683
Net investment income			418,829
Net investment gains (losses)			(456,789)
Corporate expenses			(130,054)
Foreign exchange gains			157,945
Interest expense and financing costs			(63,146)
Reorganization expenses			(31,426)
Amortization of value of business acquired			—
Amortization of intangible assets			(10,917)
Income before income taxes and interest in income of equity method investments			243,125
Income tax expense			(22,037)
Interest in income of equity method investments			1,995
Net income			223,083
Preferred share dividends			30,250
Net income available to common shareholders			<u>\$ 192,833</u>
Net losses and loss expenses ratio	57.0 %	71.9 %	62.8 %
Acquisition cost ratio	18.4 %	21.9 %	19.8 %
General and administrative expense ratio	14.2 %	5.3 %	13.2 %
Combined ratio	<u>89.6 %</u>	<u>99.1 %</u>	<u>95.8 %</u>
Goodwill and intangible assets	<u>\$ 298,601</u>	<u>\$ —</u>	<u>\$ 298,601</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

3. SEGMENT INFORMATION (CONTINUED)

At and year ended December 31, 2021	Insurance	Reinsurance	Total
Gross premiums written	\$ 4,863,232	\$ 2,822,752	\$ 7,685,984
Net premiums written	2,894,885	2,031,739	4,926,624
Net premiums earned	2,651,339	2,058,511	4,709,850
Other insurance related income	1,662	21,633	23,295
Net losses and loss expenses	(1,514,998)	(1,493,785)	(3,008,783)
Acquisition costs	(484,344)	(437,490)	(921,834)
Underwriting-related general and administrative expenses	(429,282)	(107,552)	(536,834)
Underwriting income	<u>\$ 224,377</u>	<u>\$ 41,317</u>	265,694
Net investment income			454,301
Net investment gains			134,279
Corporate expenses			(126,470)
Foreign exchange losses			(315)
Interest expense and financing costs			(62,302)
Reorganization expenses			—
Amortization of value of business acquired			(3,854)
Amortization of intangible assets			(12,424)
Income before income taxes and interest in income of equity method investments			648,909
Income tax expense			(62,384)
Interest in income of equity method investments			32,084
Net income			618,609
Preferred share dividends			30,250
Net income available to common shareholders			<u>\$ 588,359</u>
Net losses and loss expenses ratio	57.1 %	72.6 %	63.9 %
Acquisition cost ratio	18.3 %	21.3 %	19.6 %
General and administrative expense ratio	16.2 %	5.1 %	14.0 %
Combined ratio	<u>91.6 %</u>	<u>99.0 %</u>	<u>97.5 %</u>
Goodwill and intangible assets	<u>\$ 309,518</u>	<u>\$ —</u>	<u>\$ 309,518</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

3. SEGMENT INFORMATION (CONTINUED)

At and year ended December 31, 2020	Insurance	Reinsurance	Total
Gross premiums written	\$ 4,018,399	\$ 2,808,539	\$ 6,826,938
Net premiums written	2,357,501	1,978,908	4,336,409
Net premiums earned	2,299,038	2,072,271	4,371,309
Other insurance related income (loss)	2,647	(10,736)	(8,089)
Net losses and loss expenses	(1,697,014)	(1,584,238)	(3,281,252)
Acquisition costs	(461,533)	(467,984)	(929,517)
Underwriting-related general and administrative expenses	(378,839)	(99,129)	(477,968)
Underwriting income (loss)	<u>\$ (235,701)</u>	<u>\$ (89,816)</u>	<u>(325,517)</u>
Net investment income			349,601
Net investment gains			129,133
Corporate expenses			(101,822)
Foreign exchange losses			(81,069)
Interest expense and financing costs			(75,049)
Reorganization expenses			(7,881)
Amortization of value of business acquired			(5,139)
Amortization of intangible assets			(11,390)
Income (loss) before income taxes and interest in income (loss) of equity method investments			<u>(129,133)</u>
Income tax benefit			12,321
Interest in income (loss) of equity method investments			(3,612)
Net income (loss)			<u>(120,424)</u>
Preferred share dividends			30,250
Net income (loss) available (attributable) to common shareholders			<u>\$ (150,674)</u>
Net losses and loss expenses ratio	73.8 %	76.4 %	75.1 %
Acquisition cost ratio	20.1 %	22.6 %	21.3 %
General and administrative expense ratio	16.5 %	4.8 %	13.2 %
Combined ratio	<u>110.4 %</u>	<u>103.8 %</u>	<u>109.6 %</u>
Goodwill and intangible assets	<u>\$ 320,434</u>	<u>\$ —</u>	<u>\$ 320,434</u>

The following table presents gross premiums written by the geographical location of the Company's subsidiaries:

Years ended December 31,	2022	2021	2020
U.S.	\$ 4,342,707	\$ 4,002,748	\$ 3,398,108
Ireland	1,931,815	1,667,496	1,516,596
Lloyd's of London	1,567,458	1,473,047	1,309,802
Bermuda	372,615	542,693	602,432
Gross premiums written	<u>\$ 8,214,595</u>	<u>\$ 7,685,984</u>	<u>\$ 6,826,938</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

3. SEGMENT INFORMATION (CONTINUED)

The following table presents net premiums earned by segment and line of business:

Years ended December 31,	2022	2021	2020
<u>Insurance</u>			
Professional lines	\$ 817,924	\$ 646,390	\$ 509,448
Property	755,986	711,297	653,186
Liability	459,775	354,787	315,434
Cyber	309,004	252,077	206,720
Marine and aviation	479,499	439,050	364,656
Accident and health	209,548	151,133	143,725
Credit and political risk	102,419	96,605	105,869
Total Insurance	3,134,155	2,651,339	2,299,038
<u>Reinsurance</u>			
Liability	484,681	431,596	397,894
Accident and health	368,747	361,196	333,997
Professional lines	250,911	220,448	207,605
Credit and surety	192,926	158,549	187,722
Motor	205,774	247,099	256,064
Agriculture	122,289	82,743	73,697
Marine and aviation	78,504	58,775	53,513
<u>Run-off lines</u>			
Catastrophe	156,232	238,775	244,934
Property	135,480	231,092	256,324
Engineering	30,627	28,238	60,521
Total run-off lines	322,339	498,105	561,779
Total Reinsurance	2,026,171	2,058,511	2,072,271
Total	\$ 5,160,326	\$ 4,709,850	\$ 4,371,309

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

4. GOODWILL AND INTANGIBLE ASSETS

The table below provides details of goodwill and intangible assets related to the Company's insurance segment:

	Goodwill	Intangible assets with an indefinite life	Intangible assets with a finite life	Total
At December 31, 2020				
Gross amount	\$ 97,092	\$ 120,784	\$ 394,604	\$ 612,480
Accumulated amortization	n/a	n/a	(275,846)	(275,846)
Accumulated translation adjustment	4,911	—	—	4,911
	<u>102,003</u>	<u>120,784</u>	<u>118,758</u>	<u>341,545</u>
Amortization	n/a	n/a	(16,055)	(16,055)
Impairment charges	(1,202)	—	—	(1,202)
At December 31, 2021				
Gross amount	95,890	120,784	394,604	611,278
Accumulated amortization	n/a	n/a	(291,901)	(291,901)
Accumulated translation adjustment	4,911	—	—	4,911
	<u>100,801</u>	<u>120,784</u>	<u>102,703</u>	<u>324,288</u>
Amortization	n/a	n/a	(14,770)	(14,770)
Impairment charges	—	—	—	—
At December 31, 2022				
Gross amount	95,890	120,784	394,604	611,278
Accumulated amortization	n/a	n/a	(306,671)	(306,671)
Accumulated translation adjustment	4,911	—	—	4,911
	<u>100,801</u>	<u>120,784</u>	<u>87,933</u>	<u>309,518</u>
Amortization	n/a	n/a	(10,917)	(10,917)
Impairment charges	—	—	—	—
	<u>\$ 100,801</u>	<u>\$ 120,784</u>	<u>\$ 77,016</u>	<u>\$ 298,601</u>

n/a – not applicable

Intangible Assets with an Indefinite Life

Intangible assets with an indefinite life include U.S. state licenses that provide a legal right to transact business indefinitely and the value of Lloyd's syndicate capacity, which represents the right to underwrite a certain allocated limit of premium in the Lloyd's market.

Impairment Review

The Company's impairment review of goodwill and indefinite lived intangibles did not result in the recognition of an impairment loss for the years ended December 31, 2022 and 2021. For the year ended December 31, 2020, an impairment loss of \$1 million was recognized related to the exit from certain program business.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

4. GOODWILL AND INTANGIBLE ASSETS (CONTINUED)

The tables below provide details of the gross amount and accumulated amortization by category of value of business acquired ("VOBA") and intangible assets:

At December 31, 2022	VOBA and intangible assets		
	Gross amount	Accumulated amortization	Total
U.S. state licenses	\$ 26,036	n/a	\$ 26,036
Syndicate capacity ⁽²⁾	94,748	n/a	94,748
Customer relationships and customers lists - Ternian ⁽¹⁾	13,330	(10,329)	3,001
VOBA - Novae ⁽²⁾	256,942	(256,942)	—
Coverholders ⁽²⁾	63,565	(27,812)	35,753
Large brokers ⁽²⁾	46,641	(16,325)	30,316
SME brokers ⁽²⁾	14,126	(6,180)	7,946
	\$ 515,388	\$ (317,588)	\$ 197,800

n/a – not applicable

- (1) On April 1, 2015, the Company completed its acquisition of Ternian Insurance Group LLC (renamed AXIS Group Benefits LLC in 2022) and recognized the definite life intangible assets detailed above.
- (2) On October 2, 2017, the Company acquired Novae and recognized finite lived intangible assets, including VOBA, distribution networks, and indefinite lived intangible assets related to Lloyd's syndicate capacity, all detailed above.

At December 31, 2021	VOBA and intangible assets		
	Gross amount	Accumulated amortization	Total
U.S. state licenses	\$ 26,036	n/a	\$ 26,036
Syndicate capacity ⁽²⁾	94,748	n/a	94,748
Customer relationships and customers lists - Ternian ⁽¹⁾	13,330	(8,997)	4,333
VOBA - Novae ⁽²⁾	256,942	(256,942)	—
Coverholders ⁽²⁾	63,565	(22,514)	41,051
Large brokers ⁽²⁾	46,641	(13,215)	33,426
SME brokers ⁽²⁾	14,126	(5,003)	9,123
	\$ 515,388	\$ (306,671)	\$ 208,717

n/a – not applicable

- (1) On April 1, 2015, the Company completed its acquisition of Ternian Insurance Group LLC and recognized the definite life intangible assets detailed above.
- (2) On October 2, 2017, the Company acquired Novae and recognized finite lived intangible assets, including VOBA, distribution networks, and indefinite lived intangible assets related to Lloyd's syndicate capacity, all detailed above.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

4. GOODWILL AND INTANGIBLE ASSETS (CONTINUED)

The table below provides details of estimated amortization expense of intangible assets with a finite life:

	Total
2023	\$ 10,916
2024	10,916
2025	9,921
2026	9,583
2027	9,583
After 2027	26,097
Total remaining amortization expense	77,016
Indefinite lived intangible assets	120,784
Total intangible assets	\$ 197,800

The estimated remaining average useful life of finite lived intangible assets is 8 years.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS

a) Fixed Maturities, Available for Sale

The following table provides the amortized cost and fair values of the Company's fixed maturities classified as available for sale:

	Amortized cost	Allowance for expected credit losses	Gross unrealized gains	Gross unrealized losses	Fair value
<u>At December 31, 2022</u>					
Available for sale					
U.S. government and agency	\$ 2,731,733	\$ —	\$ 5,386	\$ (97,789)	\$ 2,639,330
Non-U.S. government	612,546	—	2,395	(52,912)	562,029
Corporate debt	4,680,798	(11,521)	5,269	(418,990)	4,255,556
Agency RMBS ⁽¹⁾	1,297,423	—	4,663	(99,301)	1,202,785
CMBS ⁽²⁾	1,029,863	—	60	(82,145)	947,778
Non-agency RMBS	151,907	(123)	275	(18,525)	133,534
ABS ⁽³⁾	1,499,728	(35)	555	(70,721)	1,429,527
Municipals ⁽⁴⁾	172,475	(54)	139	(16,205)	156,355
Total fixed maturities, available for sale	\$ 12,176,473	\$ (11,733)	\$ 18,742	\$ (856,588)	\$ 11,326,894
<u>At December 31, 2021</u>					
Available for sale					
U.S. government and agency	\$ 2,693,319	\$ —	\$ 9,776	\$ (20,647)	\$ 2,682,448
Non-U.S. government	794,705	—	10,158	(9,685)	795,178
Corporate debt	4,446,585	(236)	87,075	(38,112)	4,495,312
Agency RMBS ⁽¹⁾	1,065,973	—	17,397	(8,781)	1,074,589
CMBS ⁽²⁾	1,223,051	—	29,827	(4,687)	1,248,191
Non-agency RMBS	185,854	(77)	2,410	(2,023)	186,164
ABS ⁽³⁾	1,628,739	—	3,406	(9,665)	1,622,480
Municipals ⁽⁴⁾	203,556	—	5,928	(646)	208,838
Total fixed maturities, available for sale	\$ 12,241,782	\$ (313)	\$ 165,977	\$ (94,246)	\$ 12,313,200

(1) Residential mortgage-backed securities ("RMBS") originated by U.S. government-sponsored agencies.

(2) Commercial mortgage-backed securities ("CMBS").

(3) Asset-backed securities ("ABS") include debt tranching securities collateralized primarily by auto loans, student loans, credit card receivables and collateralized loan obligations ("CLOs").

(4) Municipals include bonds issued by states, municipalities and political subdivisions.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

Contractual Maturities

Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

The table below provides the contractual maturities of fixed maturities classified as available for sale:

	Amortized cost	Fair value	% of Total fair value
<u>At December 31, 2022</u>			
Maturity			
Due in one year or less	\$ 422,039	\$ 409,972	3.7 %
Due after one year through five years	5,349,123	5,078,273	44.8 %
Due after five years through ten years	2,192,344	1,919,450	16.9 %
Due after ten years	234,046	205,575	1.8 %
	<u>8,197,552</u>	<u>7,613,270</u>	<u>67.2 %</u>
Agency RMBS	1,297,423	1,202,785	10.6 %
CMBS	1,029,863	947,778	8.4 %
Non-agency RMBS	151,907	133,534	1.2 %
ABS	1,499,728	1,429,527	12.6 %
Total	<u>\$ 12,176,473</u>	<u>\$ 11,326,894</u>	<u>100.0 %</u>
<u>At December 31, 2021</u>			
Maturity			
Due in one year or less	\$ 503,716	\$ 505,602	4.1 %
Due after one year through five years	4,878,151	4,908,640	39.9 %
Due after five years through ten years	2,478,542	2,488,478	20.2 %
Due after ten years	277,756	279,056	2.3 %
	<u>8,138,165</u>	<u>8,181,776</u>	<u>66.5 %</u>
Agency RMBS	1,065,973	1,074,589	8.7 %
CMBS	1,223,051	1,248,191	10.1 %
Non-agency RMBS	185,854	186,164	1.5 %
ABS	1,628,739	1,622,480	13.2 %
Total	<u>\$ 12,241,782</u>	<u>\$ 12,313,200</u>	<u>100.0 %</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

Gross Unrealized Losses

The following table summarizes fixed maturities, available for sale in an unrealized loss position and the aggregate fair value and gross unrealized loss by length of time the security has continuously been in an unrealized loss position:

	12 months or greater		Less than 12 months		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
At December 31, 2022						
Fixed maturities, available for sale						
U.S. government and agency	\$ 467,032	\$ (41,365)	\$ 1,414,181	\$ (56,424)	\$ 1,881,213	\$ (97,789)
Non-U.S. government	207,637	(33,027)	298,048	(19,885)	505,685	(52,912)
Corporate debt	1,562,355	(268,289)	2,350,504	(150,701)	3,912,859	(418,990)
Agency RMBS	220,595	(40,469)	771,191	(58,832)	991,786	(99,301)
CMBS	343,494	(40,888)	599,877	(41,257)	943,371	(82,145)
Non-agency RMBS	75,137	(14,691)	53,484	(3,834)	128,621	(18,525)
ABS	685,990	(48,913)	686,190	(21,808)	1,372,180	(70,721)
Municipals	52,994	(10,120)	96,003	(6,085)	148,997	(16,205)
Total fixed maturities, available for sale	\$ 3,615,234	\$ (497,762)	\$ 6,269,478	\$ (358,826)	\$ 9,884,712	\$ (856,588)
At December 31, 2021						
Fixed maturities, available for sale						
U.S. government and agency	\$ 101,776	\$ (4,852)	\$ 2,014,880	\$ (15,795)	\$ 2,116,656	\$ (20,647)
Non-U.S. government	11,011	(1,830)	463,498	(7,855)	474,509	(9,685)
Corporate debt	152,962	(6,542)	1,681,859	(31,570)	1,834,821	(38,112)
Agency RMBS	41,024	(1,678)	503,988	(7,103)	545,012	(8,781)
CMBS	30,128	(1,001)	347,515	(3,686)	377,643	(4,687)
Non-agency RMBS	4,481	(523)	109,937	(1,500)	114,418	(2,023)
ABS	43,466	(1,152)	1,040,363	(8,513)	1,083,829	(9,665)
Municipals	5,293	(137)	35,649	(509)	40,942	(646)
Total fixed maturities, available for sale	\$ 390,141	\$ (17,715)	\$ 6,197,689	\$ (76,531)	\$ 6,587,830	\$ (94,246)

At December 31, 2022, 4,525 fixed maturities (2021: 2,333) were in an unrealized loss position of \$857 million (2021: \$94 million) of which \$64 million (2021: \$8 million) was related to securities below investment grade or not rated.

At December 31, 2022, 1,842 fixed maturities (2021: 344) had been in a continuous unrealized loss position for twelve months or greater and had a fair value of \$3,615 million (2021: \$390 million).

The unrealized losses of \$857 million (2021: \$94 million) were due to non-credit factors and were expected to be recovered as the related securities approach maturity.

At December 31, 2022, the Company did not intend to sell the securities in an unrealized loss position and it is more likely than not that the Company will not be required to sell these securities before the anticipated recovery of their amortized costs.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

b) Fixed Maturities, Held to Maturity

The following table provides the amortized cost and fair values of the Company's fixed maturities classified as held to maturity:

	Amortized cost	Allowance for expected credit losses	Net carrying value	Gross unrealized gains	Gross unrealized losses	Fair value
<u>At December 31, 2022</u>						
Held to maturity						
Corporate debt	\$ 85,200	\$ —	\$ 85,200	\$ —	\$ (11,428)	\$ 73,772
ABS ⁽¹⁾	613,151	—	613,151	—	(12,180)	600,971
Total fixed maturities, held to maturity	\$ 698,351	\$ —	\$ 698,351	\$ —	\$ (23,608)	\$ 674,743
<u>At December 31, 2021</u>						
Held to maturity						
Corporate debt	\$ 37,700	\$ —	\$ 37,700	\$ 18	\$ (146)	\$ 37,572
ABS ⁽¹⁾	408,316	—	408,316	81	(936)	407,461
Total fixed maturities, held to maturity	\$ 446,016	\$ —	\$ 446,016	\$ 99	\$ (1,082)	\$ 445,033

(1) Asset-backed securities ("ABS") include debt tranching securities collateralized primarily by collateralized loan obligations ("CLOs").

On March 1, 2021, the Company transferred ABS securities with total fair value of \$405 million from fixed maturities, available for sale to fixed maturities, held to maturity. These securities, which the Company has the intent and ability to hold to maturity, were transferred in order to better align the accounting classification with their management strategy. The net unrealized gain at the date of the transfer, March 1, 2021, continues to be reported in the carrying value of the transferred securities and is amortized over the remaining life of the securities using the effective yield method.

At December 31, 2022, fixed maturities, held to maturity of \$698 million (2021: \$446 million) were presented net of an allowance for expected credit losses of \$nil (2021: \$nil).

The Company's ABS, held to maturity consist of CLO debt tranching securities. The Company uses a scenario-based approach to review its CLO debt portfolio and reviews subordination levels of these securities to determine their ability to absorb credit losses of the underlying collateral. If losses are forecast to be below the subordination level for a tranche held by the Company, the security is determined not to have a credit loss. At December 31, 2022, the allowance for credit losses expected to be recognized over the life of the Company's ABS, held to maturity was \$nil.

To estimate expected credit losses for corporate debt securities, held to maturity, the Company's projected cash flows are primarily driven by assumptions regarding the severity of loss, which is a function of the probability of default and projected recovery rates. The Company's default and recovery rates are based on credit ratings, credit analysis and macroeconomic forecasts. At December 31, 2022, the allowance for credit losses expected to be recognized over the life of the Company's corporate debt, held to maturity was \$nil.

Contractual Maturities

Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. ABS classified as held to maturity with a net carrying value of \$613 million (2021: \$408 million) do not have a single maturity date and cannot be allocated over several maturity groupings.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

Corporate debt classified as held to maturity with a net carrying value of \$81 million (2021: \$34 million) is due between 3 years and 10 years and corporate debt classified as held to maturity with a net carrying value of \$4 million (2021: \$4 million) is due after ten years.

c) Equity Securities

The following table provides the cost and fair values of the Company's equity securities:

	Cost	Gross unrealized gains	Gross unrealized losses	Fair value
At December 31, 2022				
Equity securities				
Common stocks	\$ 7,279	\$ 636	\$ (442)	\$ 7,473
Preferred stocks	115	—	(43)	72
Exchange-traded funds	207,505	68,058	(5,757)	269,806
Bond mutual funds	279,457	—	(71,555)	207,902
Total equity securities	\$ 494,356	\$ 68,694	\$ (77,797)	\$ 485,253
At December 31, 2021				
Equity securities				
Common stocks	\$ 1,264	\$ 585	\$ (485)	\$ 1,364
Preferred stocks	115	64	—	179
Exchange-traded funds	203,455	134,037	(677)	336,815
Bond mutual funds	324,030	544	(7,257)	317,317
Total equity securities	\$ 528,864	\$ 135,230	\$ (8,419)	\$ 655,675

d) Mortgage Loans

The following table provides details of the Company's mortgage loans held for investment:

	December 31, 2022		December 31, 2021	
	Carrying value	% of Total	Carrying value	% of Total
Mortgage loans held for investment:				
Commercial	\$ 627,437	100 %	\$ 594,088	100 %
Total mortgage loans held for investment	\$ 627,437	100 %	\$ 594,088	100 %

The primary credit quality indicators for commercial mortgage loans are the debt service coverage ratio which compares a property's net operating income to amounts needed to service the principal and interest due under the loan, (generally, the lower the debt service coverage ratio, the higher the risk of experiencing a credit loss) and the loan-to-value ratio which compares the unpaid principal balance of the loan to the estimated fair value of the underlying collateral (generally, the higher the loan-to-value ratio, the higher the risk of experiencing a credit loss). The debt service coverage ratio and loan-to-value ratio, as well as the values utilized in calculating these ratios, are updated annually, on a rolling basis.

The Company has a high quality mortgage loan portfolio with a weighted average debt service coverage ratio of 2.3x (2021: 2.5x) and a weighted average loan-to-value ratio of 60% (2021: 60%). At December 31, 2022 and 2021, there were no credit losses or past due amounts associated with the commercial mortgage loans held by the Company.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

e) Other Investments

The following table provides a summary of the Company's other investments, together with additional information relating to the liquidity of each category:

	Fair value		Redemption frequency (if currently eligible)	Redemption notice period
<u>At December 31, 2022</u>				
Long/short equity funds	\$	— %	n/a	n/a
Multi-strategy funds	32,616	3 %	Quarterly	60-90 days
Direct lending funds	258,626	26 %	Quarterly ⁽¹⁾	90 days
Private equity funds	265,836	27 %	n/a	n/a
Real estate funds	298,499	30 %	Quarterly ⁽²⁾ , Annually ⁽³⁾	45-90 days
CLO-Equities	5,016	— %	n/a	n/a
Other privately held investments	136,158	14 %	n/a	n/a
Total other investments	\$ 996,751	100 %		
<u>At December 31, 2021</u>				
Long/short equity funds	\$	3,476 — %	Annually	60 days
Multi-strategy funds	56,012	6 %	Quarterly	60-90 days
Direct lending funds	289,867	31 %	Quarterly ⁽¹⁾	90 days
Private equity funds	249,974	26 %	n/a	n/a
Real estate funds	238,222	25 %	Quarterly ⁽²⁾	45 days
CLO-Equities	5,910	1 %	n/a	n/a
Other privately held investments	104,521	11 %	n/a	n/a
Total other investments	\$ 947,982	100 %		

n/a – not applicable

(1) Applies to one fund with a fair value of \$39 million (2021: \$47 million).

(2) Applies to one fund with a fair value of \$73 million (2021: \$73 million).

(3) Applies to one fund with a fair value of \$27 million (2021: \$nil).

The investment strategies for the above funds are as follows:

- *Long/short equity funds*: Seek to achieve attractive returns primarily by executing an equity trading strategy involving long and short investments in publicly-traded equity securities.
- *Multi-strategy funds*: Seek to achieve above-market returns by pursuing multiple investment strategies to diversify risks and reduce volatility. This category includes funds of hedge funds which invest in a large pool of hedge funds across a diversified range of hedge fund strategies.
- *Direct lending funds*: Seek to achieve attractive risk-adjusted returns, including current income generation, by investing in funds which provide financing directly to borrowers.
- *Private equity funds*: Seek to achieve attractive risk-adjusted returns by investing in private transactions over the course of several years.
- *Real estate funds*: Seek to achieve attractive risk-adjusted returns by making and managing investments in real estate and real estate securities and businesses.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

Two common redemption restrictions which may impact the Company's ability to redeem hedge funds are gates and lockups. A gate is a suspension of redemptions which may be implemented by the general partner or investment manager of the fund in order to defer, in whole or in part, the redemption request in the event the aggregate amount of redemption requests exceeds a predetermined percentage of the fund's net assets which may otherwise hinder the general partner or investment manager's ability to liquidate holdings in an orderly fashion in order to generate the cash necessary to fund extraordinarily large redemption payouts. A lockup period is the initial amount of time an investor is contractually required to hold the security before having the ability to redeem. During 2022 and 2021, neither of these restrictions impacted the Company's redemption requests. At December 31, 2022, there were no hedge fund holdings (2021: \$3 million) where the Company is still within the lockup period.

At December 31, 2022, the Company had \$26 million (2021: \$23 million) of unfunded commitments as a limited partner in multi-strategy hedge funds. Once the full amount of committed capital has been called by the General Partner of each of these funds, the assets will not be fully returned until after the completion of the funds' investment term. These funds have investment terms ranging from two years to the dissolution of the underlying fund.

At December 31, 2022, the Company had \$183 million (2021: \$224 million) of unfunded commitments as a limited partner in direct lending funds. Once the full amount of committed capital has been called by the General Partner of each of these funds, the assets will not be fully returned until the completion of the fund's investment term. These funds have investment terms ranging from four to ten years and the General Partners of certain funds have the option to extend the term by up to three years.

At December 31, 2022, the Company had \$158 million (2021: \$178 million) of unfunded commitments as a limited partner in private equity funds. The life of the funds is subject to the dissolution of the underlying funds. The Company expects the overall holding period to be over five years.

At December 31, 2022, the Company had \$141 million (2021: \$173 million) of unfunded commitments as a limited partner in real estate funds. These funds include an open-ended fund and funds with investment terms ranging from two years to the dissolution of the underlying fund.

f) Equity Method Investments

During 2016, the Company paid \$108 million including direct transaction costs to acquire 19% of the common equity of Harrington Reinsurance Holdings Limited ("Harrington"), the parent company of Harrington Re Ltd. ("Harrington Re"), an independent reinsurance company jointly sponsored by the Company and The Blackstone Group L.P. ("Blackstone"). Through long-term service agreements, the Company will serve as Harrington Re's reinsurance underwriting manager and Blackstone will serve as exclusive investment management service provider. As an investor, the Company expects to benefit from underwriting profit generated by Harrington Re and the income and capital appreciation Blackstone seeks to deliver through its investment management services. In addition, the Company has entered into an arrangement with Blackstone under which underwriting and investment related fees will be shared equally. Harrington is not a Variable Interest Entities ("VIEs") that is required to be included in the Company's consolidated financial statements. The Company accounts for its ownership interest in Harrington under the equity method of accounting. The Company's proportionate share of the underlying equity in net assets resulted in a basis difference of \$5 million which represents initial transactions costs.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

g) Variable Interest Entities

In the normal course of investing activities, the Company actively manages allocations to non-controlling tranches of structured securities which are variable interests issued by VIEs. These structured securities include RMBS, CMBS and ABS.

The Company also invests in limited partnerships which represent 71% of the Company's other investments. The investments in limited partnerships include hedge funds, direct lending funds, private equity funds, real estate funds and CLO equity tranch securities, which are variable interests issued by VIEs (refer to Note 5(e) '*Other Investments*').

The Company does not have the power to direct the activities that are most significant to the economic performance of these VIEs therefore the Company is not the primary beneficiary of these VIEs. The maximum exposure to loss on these interests is limited to the amount of commitment made by the Company. The Company has not provided financial or other support to these structured securities other than the original investment.

h) Net Investment Income

Net investment income was derived from the following sources:

Year ended December 31,	2022	2021	2020
Fixed maturities	\$ 329,858	\$ 262,049	\$ 317,121
Other investments	57,043	181,906	16,059
Equity securities	10,390	12,752	9,328
Mortgage loans	23,407	17,427	15,432
Cash and cash equivalents	20,273	4,454	13,582
Short-term investments	3,535	664	2,749
Gross investment income	444,506	479,252	374,271
Investment expenses	(25,677)	(24,951)	(24,670)
Net investment income	\$ 418,829	\$ 454,301	\$ 349,601

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

i) Net Investment Gains (Losses)

The following table provides an analysis of net investment gains (losses):

Year ended December 31,	2022	2021	2020
Gross realized investment gains			
Fixed maturities and short-term investments	\$ 16,671	\$ 137,729	\$ 186,726
Equity securities	7,687	5,413	25,648
Gross realized investment gains	<u>24,358</u>	143,142	212,374
Gross realized investment losses			
Fixed maturities and short-term investments	(328,493)	(42,613)	(94,607)
Equity securities	(406)	(696)	(5,840)
Gross realized investment losses	<u>(328,899)</u>	(43,309)	(100,447)
Change in allowance for expected credit losses	(11,421)	11	(323)
Impairment losses ⁽¹⁾	(12,568)	(22)	(1,486)
Change in fair value of investment derivatives ⁽²⁾	7,656	4,346	(2,434)
Net unrealized gains (losses) on equity securities	<u>(135,915)</u>	30,111	21,449
Net investment gains (losses)	<u>\$ (456,789)</u>	<u>\$ 134,279</u>	<u>\$ 129,133</u>

(1) Related to instances where the Company intends to sell securities or it is more likely than not that the Company will be required to sell securities before their anticipated recovery.

(2) Refer to Note 7 'Derivative Instruments'.

The following table provides a reconciliation of the beginning and ending balances of the allowance for expected credit losses on fixed maturities classified as available for sale:

Year ended December 31,	2022	2021	2020
Balance at beginning of period	\$ 313	\$ 323	\$ —
Expected credit losses on securities where credit losses were not previously recognized	17,830	95	22,570
Additions (reductions) for expected credit losses on securities where credit losses were previously recognized	(3,831)	50	(11,542)
Impairments of securities which the Company intends to sell or more likely than not will be required to sell	—	—	—
Securities sold/redeemed/matured	(2,579)	(155)	(10,705)
Balance at end of period	<u>\$ 11,733</u>	<u>\$ 313</u>	<u>\$ 323</u>

Fixed Maturities

The Company evaluates available for sale securities for expected credit losses when fair value is below amortized cost. If the Company intends to sell or will be required to sell the security before its anticipated recovery, the full amount of the impairment loss is charged to net income (loss). If the Company does not intend to sell or will not be required to sell the security before its anticipated recovery, an allowance for expected credit losses is established and the portion of the loss that relates to credit losses is recorded in net income (loss).

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

A summary of credit loss activity by asset class, the significant inputs and the methodology used to estimate credit losses are described below.

U.S. Government, U.S. Agency and U.S. Agency RMBS

Unrealized losses on securities issued or backed, either explicitly or implicitly by the U.S. government are not analyzed for credit losses. The Company has concluded that the possibility of a credit loss on these securities is highly unlikely due to the explicit U.S. government guarantee related to certain securities (e.g., Government National Mortgage Association issuances) and the implicit guarantee related to other securities that has been validated by past actions (e.g., U.S. government bailout of Federal National Mortgage Association and Federal Home Loan Mortgage Corporation during the 2008 credit crisis).

Although these securities are not analyzed for credit losses, they are evaluated for intention to sell and likely requirement to sell.

Non-U.S. Government

Non-U.S. government securities are evaluated for expected credit losses primarily through qualitative assessments of the likelihood of credit losses using information such as severity of unrealized losses, credit ratings and price volatility. At December 31, 2022, the gross unrealized losses of \$53 million included foreign exchange losses of \$24 million. At December 31, 2022, the Company does not anticipate any credit losses on its non-U.S. government fixed maturities.

At December 31, 2021, the gross unrealized losses of \$10 million and were mainly due to foreign exchange losses. At December 31, 2021, the Company did not anticipate any credit losses on its non-U.S. government fixed maturities.

Corporate Debt

To estimate expected credit losses for corporate debt securities, the Company's projected cash flows are primarily driven by assumptions regarding the severity of loss, probability of default and projected recovery rates. The Company's default and loss severity rates are based on credit rating, credit analysis and macroeconomic forecasts. At December 31, 2022 and 2021, the allowance for expected credit losses on corporate debt securities mainly related to loss severity where the forecasted recovery to amortized cost was uncertain.

CMBS

The Company's investments in CMBS are diversified and primarily rated AA or better. At December 31, 2022, CMBS had a weighted average estimated subordination percentage of 38% (2021: 37%). Based on discounted cash flows at December 31, 2022 and 2021, the current level of subordination is sufficient to cover the estimated loan losses on the underlying collateral of the CMBS.

Non-agency RMBS

To estimate expected credit losses for non-agency RMBS, the Company's projected cash flows incorporated underlying data from widely accepted third-party data sources along with certain internal assumptions and judgments regarding the future performance of the security. These assumptions included default, delinquency, loss severity and prepayment rates.

At December 31, 2022, the fair value of the Company's non-agency RMBS was \$134 million (2021: \$186 million), consisting primarily of \$39 million (2021: \$87 million) of Prime and \$76 million (2021: \$74 million) of Alt-A MBS. At December 31, 2022 and 2021, the allowance for expected credit losses on non-agency RMBS related to loss severity where the forecasted recovery to amortized cost is uncertain.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

ABS

The Company's investments in ABS consist mainly of CLO debt tranching securities ("CLO Debt") purchased primarily as new issues between 2018 and 2022. Substantially all of these new issues had credit ratings of AA or better. The Company utilizes a scenario-based approach to review its CLO Debt portfolio based on the current asset market price. The Company also reviews subordination levels of these securities to determine their ability to absorb credit losses of underlying collateral. If losses are forecast to be below the subordination level for a tranche held by the Company, the security is determined not to have a credit loss. At December 31, 2022, the allowance for expected credit losses on ABS related to loss severity where the forecasted recovery to amortized cost is uncertain. At December 31, 2021, the Company did not anticipate any credit losses on its CLO Debt.

Municipals

Municipal securities are evaluated for expected credit losses primarily through qualitative assessments of the likelihood of credit losses using information such as severity of unrealized losses, credit ratings and price volatility. At December 31, 2022, the allowance for expected credit losses on municipals related to loss severity where the forecasted recovery to amortized cost is uncertain. At December 31, 2021, the Company did not anticipate any credit losses on its municipal securities.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

5. INVESTMENTS (CONTINUED)

j) Restricted Assets

In order to support the Company's obligations in regulatory jurisdictions where it operates as a non-admitted carrier, the Company provides collateral in the form of assets held in trust and, to a lesser extent, letters of credit (refer to Note 10(b) *'Debt and Financing Arrangements'*).

In addition, the Company operates in the Lloyd's market through its corporate members, AXIS Corporate Capital UK Limited and AXIS Corporate Capital UK II Limited, which provide 70% and 30%, respectively of Syndicate 1686's capital support. Lloyd's sets capital requirements for corporate members annually through the application of a capital model that is based on regulatory rules pursuant to Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking up and pursuit of business of Insurance and Reinsurance (Solvency II) ("Solvency II").

The capital provided to support underwriting, or Funds at Lloyd's ("FAL"), may be satisfied by cash, certain investments and letters of credit provided by approved banks (refer to Note 12 *'Commitments and Contingencies'* and Note 22 *'Statutory Financial Information'*).

At December 31, 2022, collateral held in trust for third-party agreements of \$2,491 million (2021: \$2,413 million) included \$539 million (2021: \$507 million) of fixed maturities, and cash of \$217 million (2021: \$326 million) held on deposit to support the underwriting activities of Syndicate 1686.

The Company's restricted investments and cash primarily consist of high-quality fixed maturity and short-term investment securities.

The table below provides the fair values of the Company's restricted investments and cash:

At December 31,	2022	2021
Collateral in Trust for inter-company agreements	\$ 790,449	\$ 886,903
Collateral for secured letter of credit facility	424,624	402,478
Funds at Lloyd's	748,573	936,862
Collateral in Trust for third-party agreements	2,491,317	2,412,882
Securities on deposit or in trust with regulatory authorities	731,660	729,072
Total restricted investments and cash	\$ 5,186,623	\$ 5,368,197

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS

Fair Value Hierarchy

Fair value is defined as the price to sell an asset or transfer a liability (i.e., the "exit price") in an orderly transaction between market participants. U.S. GAAP prescribes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to quoted prices in active markets and the lowest priority to unobservable data. The level in the hierarchy within which a given fair value measurement falls is determined based on the lowest level input that is significant to the measurement. The hierarchy is broken down into three levels as follows:

- Level 1 - Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access.
- Level 2 - Valuations based on quoted prices in active markets for similar assets or liabilities, quoted prices for identical assets or liabilities in inactive markets, or for which significant inputs are observable (e.g., interest rates, yield curves, prepayment speeds, default rates, loss severities, etc.) or can be corroborated by observable market data.
- Level 3 - Valuations based on inputs that are unobservable and significant to the overall fair value measurement. The unobservable inputs reflect the Company's judgments about assumptions that market participants might use.

The availability of observable inputs can vary from financial instrument to financial instrument and is affected by a wide variety of factors including, for example, the type of financial instrument, whether the financial instrument is new and not yet established in the marketplace, and other characteristics particular to the transaction. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires significantly more judgment.

Accordingly, the degree of judgment exercised by management in determining fair value is greatest for financial instruments categorized as Level 3. In periods of market dislocation, the observability of prices and inputs may be reduced for many financial instruments. This may lead the Company to change the selection of valuation technique (from market to cash flow approach) or may cause the Company to use multiple valuation techniques to estimate the fair value of a financial instrument. This circumstance could cause an instrument to be reclassified between levels within the fair value hierarchy.

Valuation Techniques

The valuation techniques, including significant inputs and assumptions generally used to determine the fair values of the Company's financial instruments as well as the classification of the fair values of its financial instruments in the fair value hierarchy are described in detail below.

Fixed Maturities

At each valuation date, the Company uses the market approach valuation technique to estimate the fair value of its fixed maturities portfolio, where possible. The market approach includes, but is not limited to, prices obtained from third-party pricing services for identical or comparable securities and the use of "pricing matrix models" using observable market inputs such as yield curves, credit risks and spreads, measures of volatility, and prepayment speeds. Pricing from third-party pricing services is sourced from multiple vendors, where available, and the Company maintains a vendor hierarchy by asset type based on historical pricing experience and vendor expertise. Where prices are unavailable from pricing services, the Company obtains non-binding quotes from broker-dealers who are active in the corresponding markets. The valuation techniques including significant inputs and assumptions generally used to determine the fair values of the Company's fixed maturities by asset class as well as the classifications of the fair values of these securities in the fair value hierarchy are described in detail below.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

U.S. Government and Agency

U.S. government and agency securities consist primarily of bonds issued by the U.S. Treasury and mortgage pass-through agencies such as the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation and the Government National Mortgage Association. As the fair values of U.S. Treasury securities are based on unadjusted quoted market prices in active markets, the fair values of these securities are classified as Level 1. The fair values of U.S. government agency securities are determined using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads are observable market inputs, the fair values of U.S. government agency securities are classified as Level 2.

Non-U.S. Government

Non-U.S. government securities include bonds issued by non-U.S. governments and their agencies along with supranational organizations (collectively also known as sovereign debt securities). The fair values of these securities are based on prices obtained from international indices or valuation models that include inputs such as interest rate yield curves, cross-currency basis index spreads and country credit spreads for structures similar to the sovereign bond in terms of issuer, maturity and seniority. As the significant inputs used to price these securities are observable market inputs, the fair values of non-U.S. government securities are classified as Level 2.

Corporate Debt

Corporate debt securities consist primarily of investment grade debt of a wide variety of corporate issuers and industries. The fair values of these securities are generally determined using the spread above the risk-free yield curve. These spreads are generally obtained from the new issue market, secondary trading and broker-dealer quotes. As the yields for the risk-free yield curve and the spreads are observable market inputs, the fair values of corporate debt securities are generally classified as Level 2. Where pricing is unavailable from pricing services, the Company obtains non-binding quotes from broker-dealers to estimate fair value. This is generally the case when there is a low volume of trading activity and current transactions are not orderly. In this event, the fair values of these securities are classified as Level 3.

Agency RMBS

Agency RMBS consist of bonds issued by the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation and the Government National Mortgage Association. The fair values of these securities are priced using a mortgage pool specific model which uses daily inputs from the active to be announced market and the spread associated with each mortgage pool based on vintage. As the significant inputs used to price these securities are observable market inputs, the fair values of Agency RMBS are classified as Level 2.

CMBS

CMBS mainly include investment grade bonds originated by non-agencies. The fair values of these securities are determined using a pricing model which uses dealer quotes and other available trade information along with security level characteristics to determine deal specific spreads. As the significant inputs used to price these securities are observable market inputs, the fair values of CMBS are generally classified as Level 2. Where pricing is unavailable from pricing services, the Company obtains non-binding quotes from broker-dealers to estimate fair value. This is generally the case when there is a low volume of trading activity and current transactions are not orderly. In this event, the fair values of these securities are classified as Level 3.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

Non-agency RMBS

Non-agency RMBS mainly include investment grade bonds originated by non-agencies. The fair values of these securities are determined using an option adjusted spread model or other relevant models, which use inputs including available trade information or broker quotes, prepayment and default projections based on historical statistics of the underlying collateral and current market data. As the significant inputs used to price these securities are observable market inputs, the fair values of non-agency RMBS are generally classified as Level 2. Where pricing is unavailable from pricing services, the Company obtains non-binding quotes from broker-dealers to estimate fair value. This is generally the case when there is a low volume of trading activity and current transactions are not orderly. In this event, the fair values of these securities are classified as Level 3.

ABS

ABS mainly include investment grade bonds backed by pools of loans with a variety of underlying collateral, including auto loans, student loans, credit card receivables and collateralized loan obligations ("CLOs"), originated by a variety of financial institutions. The fair values of these securities are determined using a model which uses prepayment speeds and spreads sourced primarily from the new issue market. As the significant inputs used to price these securities are observable market inputs, the fair values of ABS are generally classified as Level 2. Where pricing is unavailable from pricing services, the Company obtains non-binding quotes from broker-dealers to estimate fair value. This is generally the case when there is a low volume of trading activity and current transactions are not orderly. In this event, the fair values of these securities are classified as Level 3.

Municipals

Municipals comprise revenue bonds and general obligation bonds issued by U.S. domiciled state and municipal entities. The fair values of these securities are determined using spreads obtained from the new issue market, trade prices and broker-dealers quotes. As the significant inputs used to price these securities are observable market inputs, the fair values of municipals are classified as Level 2.

Equity Securities

Equity securities include common stocks, preferred stocks, exchange-traded funds and bond mutual funds. As the fair values of common stocks, preferred stocks and exchange-traded funds are based on unadjusted quoted market prices in active markets, the fair values of these securities are classified as Level 1. As bond mutual funds have daily liquidity, the fair values of these securities are classified as Level 2.

Other Investments

The fair value of an indirect investment in CLO-Equities is estimated using an income approach valuation technique, specifically an externally developed discounted cash flow model due to the lack of observable and relevant trades in secondary markets. As the significant inputs used to price this security are unobservable, the fair value of the indirect investment in CLO-Equities is classified as Level 3.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

Other privately held investments include convertible preferred shares, preferred shares, common shares, convertible notes, investments in limited partnerships and a variable yield security. These investments are initially valued at cost, which approximates fair value. In subsequent measurement periods, the fair values of these investments are derived from one or a combination of valuation methodologies which consider factors including recent capital raises by the investee companies, comparable precedent transaction multiples, comparable publicly traded multiples, third-party valuations, discounted cash-flow models, and other techniques that consider the industry and development stage of each investee company. The fair value of the variable yield security is determined using an externally developed discounted cash flow model. In order to assess the reasonableness of the information received from investee companies, the Company maintains an understanding of current market conditions, historical results, and emerging trends that may impact the results of operations, financial condition or liquidity of these companies. In addition, the Company engages in regular communication with management at investee companies. As the significant inputs used to price these investments are unobservable, the fair values of other privately held investments are classified as Level 3.

Short-term Investments

Short-term investments primarily comprise highly liquid securities with maturities greater than three months but less than one year from the date of purchase. These securities are typically not actively traded due to their approaching maturity, therefore their amortized cost approximates fair value. The fair values of short-term investments are classified as Level 2.

Derivative Instruments

Derivative instruments include foreign exchange forward contracts that are customized to the Company's economic hedging strategies and trade in the over-the-counter derivative market. The fair values of these derivatives are determined using a market approach valuation technique based on significant observable market inputs from third-party pricing vendors, non-binding broker-dealer quotes and/or recent trading activity. As the significant inputs used to price these derivatives are observable market inputs, the fair values of these derivatives are classified as Level 2.

Other underwriting-related derivatives include insurance and reinsurance contracts that are accounted for as derivatives. These derivative contracts are initially valued at cost which approximates fair value. In subsequent measurement periods, the fair values of these derivatives are determined using internally developed discounted cash flow models. As the significant inputs used to price these derivatives are unobservable, the fair values of these contracts are classified as Level 3.

Cash-Settled Awards

Cash-settled awards comprise restricted stock units that form part of the Company's compensation program. Although the fair values of these awards are determined using observable quoted market prices in active markets, the restricted stock units are not actively traded. As the significant inputs used to price these securities are observable market inputs, the fair values of these liabilities are classified as Level 2.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

The tables below present the financial instruments measured at fair value on a recurring basis for the periods indicated:

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Fair value based on NAV practical expedient	Total fair value
At December 31, 2022					
Assets					
Fixed maturities, available for sale					
U.S. government and agency	\$ 2,600,636	\$ 38,694	\$ —	\$ —	\$ 2,639,330
Non-U.S. government	—	562,029	—	—	562,029
Corporate debt	—	4,136,452	119,104	—	4,255,556
Agency RMBS	—	1,202,785	—	—	1,202,785
CMBS	—	947,778	—	—	947,778
Non-agency RMBS	—	133,534	—	—	133,534
ABS	—	1,429,527	—	—	1,429,527
Municipals	—	156,355	—	—	156,355
	<u>2,600,636</u>	<u>8,607,154</u>	<u>119,104</u>	<u>—</u>	<u>11,326,894</u>
Equity securities					
Common stocks	7,473	—	—	—	7,473
Preferred stocks	72	—	—	—	72
Exchange-traded funds	269,806	—	—	—	269,806
Bond mutual funds	—	207,902	—	—	207,902
	<u>277,351</u>	<u>207,902</u>	<u>—</u>	<u>—</u>	<u>485,253</u>
Other investments					
Hedge funds ⁽¹⁾	—	—	—	32,616	32,616
Direct lending funds	—	—	—	258,626	258,626
Private equity funds	—	—	—	265,836	265,836
Real estate funds	—	—	—	298,499	298,499
CLO-Equities	—	—	5,016	—	5,016
Other privately held investments	—	—	136,158	—	136,158
	<u>—</u>	<u>—</u>	<u>141,174</u>	<u>855,577</u>	<u>996,751</u>
Short-term investments	—	70,310	—	—	70,310
Other assets					
Derivative instruments (refer to Note 7)	—	37,682	—	—	37,682
Total Assets	<u>\$ 2,877,987</u>	<u>\$ 8,923,048</u>	<u>\$ 260,278</u>	<u>\$ 855,577</u>	<u>\$ 12,916,890</u>
Liabilities					
Derivative instruments (refer to Note 7)	\$ —	\$ 703	\$ —	\$ —	\$ 703
Cash-settled awards (refer to Note 17)	—	4,792	—	—	4,792
Total Liabilities	<u>\$ —</u>	<u>\$ 5,495</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 5,495</u>

(1) Includes Long/short equity and Multi-strategy funds.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Fair value based on NAV practical expedient	Total fair value
At December 31, 2021					
Assets					
Fixed maturities, available for sale					
U.S. government and agency	\$ 2,632,541	\$ 49,907	\$ —	\$ —	\$ 2,682,448
Non-U.S. government	—	795,178	—	—	795,178
Corporate debt	—	4,452,418	42,894	—	4,495,312
Agency RMBS	—	1,074,589	—	—	1,074,589
CMBS	—	1,248,191	—	—	1,248,191
Non-agency RMBS	—	186,164	—	—	186,164
ABS	—	1,622,480	—	—	1,622,480
Municipals	—	208,838	—	—	208,838
	<u>2,632,541</u>	<u>9,637,765</u>	<u>42,894</u>	<u>—</u>	<u>12,313,200</u>
Equity securities					
Common stocks	1,364	—	—	—	1,364
Preferred stocks	179	—	—	—	179
Exchange-traded funds	336,815	—	—	—	336,815
Bond mutual funds	—	317,317	—	—	317,317
	<u>338,358</u>	<u>317,317</u>	<u>—</u>	<u>—</u>	<u>655,675</u>
Other investments					
Hedge funds ⁽¹⁾	—	—	—	59,488	59,488
Direct lending funds	—	—	—	289,867	289,867
Private equity funds	—	—	—	249,974	249,974
Real estate funds	—	—	—	238,222	238,222
CLO-Equities	—	—	5,910	—	5,910
Other privately held investments	—	—	104,521	—	104,521
	<u>—</u>	<u>—</u>	<u>110,431</u>	<u>837,551</u>	<u>947,982</u>
Short-term investments	—	31,063	—	—	31,063
Other assets					
Derivative instruments (refer to Note 7)	—	3,116	—	—	3,116
Total Assets	<u>\$ 2,970,899</u>	<u>\$ 9,989,261</u>	<u>\$ 153,325</u>	<u>\$ 837,551</u>	<u>\$ 13,951,036</u>
Liabilities					
Derivative instruments (refer to Note 7)	\$ —	\$ 14,987	\$ 5,630	\$ —	\$ 20,617
Cash-settled awards (refer to Note 17)	—	9,091	—	—	9,091
Total Liabilities	<u>\$ —</u>	<u>\$ 24,078</u>	<u>\$ 5,630</u>	<u>\$ —</u>	<u>\$ 29,708</u>

(1) Includes Long/short equity and Multi-strategy funds.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

The following table quantifies the significant unobservable inputs used in estimating fair values at December 31, 2022 of investments classified as Level 3 in the fair value hierarchy:

	Asset fair value	Valuation technique	Unobservable input	Amount / Range	Weighted average
Other investments - CLO-Equities	\$ 5,016	Discounted cash flow	Default rate	4.5%	4.5%
			Loss severity rate	50.0%	50.0%
			Collateral spread	3.0%	3.0%
			Estimated maturity date	5 years	5 years
Other investments - Other privately held investments	\$ 17,169	Discounted cash flow	Discount rate	6.6%	6.6%
			Default rate	0.5%	0.5%
			Loss absorption yield	1.0%	1.0%
			Estimated maturity date	1 - 3 years	2 years

Note: Fixed maturities of \$119 million that are classified as Level 3 are excluded from the above table as these securities are priced using broker-dealer quotes. In addition, other privately held investments of \$119 million that are classified as Level 3 are excluded from the above table as these investments are priced using capital statements received from investee companies.

Other Investments - CLO-Equities

The CLO-Equities market continues to be relatively inactive with only a small number of transactions being observed, particularly related to transactions involving CLO-Equities held by the Company. Accordingly, the fair value of the Company's indirect investment in CLO-Equities is determined using a discounted cash flow model prepared by an external investment manager.

The default and loss severity rates are the most judgmental unobservable market inputs to the discounted cash flow model to which the valuation of the Company's indirect investment in CLO-Equities is most sensitive. A significant increase (decrease) in either of these significant inputs in isolation would result in a lower (higher) fair value estimate for the investment in CLO-Equities and, in general, a change in default rate assumptions would be accompanied by a directionally similar change in loss severity rate assumptions. Collateral spreads and estimated maturity dates are less judgmental inputs as they are based on the historical average of actual spreads and the weighted average life of the current underlying portfolios, respectively. A significant increase (decrease) in either of these significant inputs in isolation would result in a higher (lower) fair value estimate for the investment in CLO-Equities. In general, these inputs have no significant interrelationship with each other or with default and loss severity rates.

On a quarterly basis, the Company's valuation process for its indirect investment in CLO-Equities includes a review of the underlying cash flows and key assumptions used in the discounted cash flow model. The above significant unobservable inputs are reviewed and updated based on information obtained from secondary markets, including information received from the managers of the Company's CLO-Equities investment. In order to assess the reasonableness of the inputs the Company uses in the discounted cash flow model, the Company maintains an understanding of current market conditions, historical results, and emerging trends that may impact future cash flows. In addition, the assumptions the Company uses in its models are updated through regular communication with industry participants and ongoing monitoring of the deals in which the Company participates.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

Other Investments - Other Privately Held Securities

Other privately held securities are initially valued at cost which approximates fair value. In subsequent measurement periods, the fair value of the variable yield security was determined using an externally developed discounted cash flow model. This model includes inputs that are specific to that investment. The inputs used in the fair value measurement include an appropriate discount rate, default rate, loss absorption rate and estimated maturity date. The selection of an appropriate discount rate is judgmental and is the most significant unobservable input used in the valuation of this investment. A significant increase (decrease) in this input in isolation could result in significantly lower (higher) fair value measurement for this investment. In order to assess the reasonableness of the inputs the Company uses in the discounted cash flow model, the Company maintains an understanding of current market conditions, historical results, as well as investee specific information that may impact future cash flows.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

The following table presents changes in Level 3 for financial instruments measured at fair value on a recurring basis:

	Opening balance	Transfers into Level 3	Transfers out of Level 3	Included in net income ⁽¹⁾	Included in OCI ⁽²⁾	Purchases	Sales	Settlements/distributions	Closing balance	Change in unrealized gains/(losses) ⁽³⁾
Year ended December 31, 2022										
Fixed maturities, available for sale										
Corporate debt	\$ 42,894	\$ —	\$ —	\$ (104)	\$ (9,014)	\$ 90,130	\$ —	\$ (4,802)	\$ 119,104	\$ —
CMBS	—	—	—	—	—	—	—	—	—	—
ABS	—	—	—	—	—	—	—	—	—	—
	<u>42,894</u>	<u>—</u>	<u>—</u>	<u>(104)</u>	<u>(9,014)</u>	<u>90,130</u>	<u>—</u>	<u>(4,802)</u>	<u>119,104</u>	<u>—</u>
Other investments										
CLO-Equities	5,910	—	—	2,611	—	—	—	(3,505)	5,016	2,611
Other privately held investments	104,521	—	—	13,646	—	19,991	—	(2,000)	136,158	13,646
	<u>110,431</u>	<u>—</u>	<u>—</u>	<u>16,257</u>	<u>—</u>	<u>19,991</u>	<u>—</u>	<u>(5,505)</u>	<u>141,174</u>	<u>16,257</u>
Total assets	<u>\$153,325</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 16,153</u>	<u>\$ (9,014)</u>	<u>\$ 110,121</u>	<u>\$ —</u>	<u>\$ (10,307)</u>	<u>\$ 260,278</u>	<u>\$ 16,257</u>
Other liabilities										
Derivative instruments	\$ 5,630	\$ —	\$ —	\$ (3,542)	\$ —	\$ —	\$ —	\$ (2,088)	\$ —	\$ —
Total liabilities	<u>\$ 5,630</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (3,542)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (2,088)</u>	<u>\$ —</u>	<u>\$ —</u>
Year ended December 31, 2021										
Fixed maturities, available for sale										
Corporate debt	\$ 2,504	\$ —	\$ —	\$ —	\$ (642)	\$ 41,800	\$ —	\$ (768)	\$ 42,894	\$ —
CMBS	1,740	—	—	—	13	—	—	(1,753)	—	—
ABS	10,665	—	(10,200)	—	35	—	—	(500)	—	—
	<u>14,909</u>	<u>—</u>	<u>(10,200)</u>	<u>—</u>	<u>(594)</u>	<u>41,800</u>	<u>—</u>	<u>(3,021)</u>	<u>42,894</u>	<u>—</u>
Other investments										
CLO-Equities	6,173	—	—	2,819	—	—	—	(3,082)	5,910	2,819
Other privately held investments	70,011	—	—	42,653	—	21,760	(26,980)	(2,923)	104,521	25,273
	<u>76,184</u>	<u>—</u>	<u>—</u>	<u>45,472</u>	<u>—</u>	<u>21,760</u>	<u>(26,980)</u>	<u>(6,005)</u>	<u>110,431</u>	<u>28,092</u>
Total assets	<u>\$ 91,093</u>	<u>\$ —</u>	<u>\$ (10,200)</u>	<u>\$ 45,472</u>	<u>\$ (594)</u>	<u>\$ 63,560</u>	<u>\$ (26,980)</u>	<u>\$ (9,026)</u>	<u>\$ 153,325</u>	<u>\$ 28,092</u>
Other liabilities										
Derivative instruments	\$ 9,122	\$ —	\$ —	\$ (2,742)	\$ —	\$ —	\$ —	\$ (750)	\$ 5,630	\$ (1,769)
Total liabilities	<u>\$ 9,122</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (2,742)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (750)</u>	<u>\$ 5,630</u>	<u>\$ (1,769)</u>

(1) Realized gains (losses) on fixed maturities and realized and unrealized gains (losses) on other assets and other liabilities included in net income are included in net investment gains (losses). Realized and unrealized gains (losses) on other investments included in net income are included in net investment income.

(2) Unrealized gains (losses) on fixed maturities are included in other comprehensive income ("OCI").

(3) Change in unrealized gains (losses) relating to assets and liabilities held at the reporting date.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

Transfers into Level 3 from Level 2

There were no transfers into Level 3 from Level 2 during 2022 and 2021.

Transfers out of Level 3 into Level 2

There were no transfers out of Level 3 into Level 2 during 2022. The transfers out of Level 3 into Level 2 during 2021 were primarily due to the availability of observable market inputs and multiple quotes from pricing vendors for certain fixed maturities.

Measuring the Fair Value of Other Investments Using Net Asset Valuations

The fair values of hedge funds, direct lending funds, private equity funds and real estate funds are estimated using net asset valuations ("NAVs") as advised by external fund managers or third-party administrators. For these funds, NAVs are based on the manager's or administrator's valuation of the underlying holdings in accordance with the fund's governing documents and in accordance with U.S. GAAP.

For hedge funds, direct lending funds, private equity funds and real estate funds, valuation statements are typically released on a reporting lag, therefore, the Company estimates the fair value of these funds by starting with the most recent fund valuations and adjusting for capital calls, redemptions, drawdowns and distributions. Return estimates are not available from the relevant fund managers for these funds, therefore the Company typically has a reporting lag in its fair value measurements of these funds. At December 31, 2022 and 2021, all funds measured at fair value using NAVs are reported generally on a one quarter lag.

The Company often does not have access to financial information relating to the underlying securities held within the funds, therefore, management is unable to corroborate the fair values placed on the securities underlying the asset valuations provided by fund managers or fund administrators. In order to assess the reasonableness of the NAVs, the Company performs a number of monitoring procedures on a quarterly basis, to assess the quality of the information provided by fund managers and fund administrators. These procedures include, but are not limited to, regular review and discussion of each fund's performance with its manager, regular evaluation of fund performance against applicable benchmarks and the backtesting of the Company's fair value estimates against subsequently received NAVs. Backtesting involves comparing the Company's previously reported fair values for each fund against NAVs per audited financial statements (for year-end values) and final NAVs from fund managers and fund administrators (for interim values).

The fair values of hedge funds, direct lending funds, private equity funds and real estate funds are measured using the NAV practical expedient, therefore the fair values of these funds have not been categorized within the fair value hierarchy.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

6. FAIR VALUE MEASUREMENTS (CONTINUED)

Financial Instruments Disclosed, But Not Carried, at Fair Value

The fair value of financial instruments accounting guidance also applies to financial instruments disclosed, but not carried, at fair value, except for certain financial instruments, including insurance contracts.

At December 31, 2022, the carrying values of cash and cash equivalents including restricted amounts, accrued investment income, receivable for investments sold, certain other assets, payable for investments purchased and certain other liabilities approximated fair values due to their short maturities. As these financial instruments are not actively traded, their fair values are classified as Level 2.

At December 31, 2022, the Company's fixed maturities, held to maturity, were recorded at amortized cost with a carrying value of \$698 million (2021: \$446 million) and a fair value of \$675 million (2021: \$445 million). The fair values of these securities are determined using a model which uses prepayment speeds and spreads sourced primarily from the new issue market. As the significant inputs used to price these securities are observable market inputs, their fair values are classified as Level 2.

At December 31, 2022, the carrying value of mortgage loans, held for investment, approximated fair value. The fair values of mortgage loans are primarily determined by estimating expected future cash flows and discounting them using current interest rates for similar mortgage loans with similar credit risk or are determined from pricing for similar loans. As mortgage loans are not actively traded, their fair values are classified as Level 3.

At December 31, 2022, the Company's debt was recorded at amortized cost with a carrying value of \$1,312 million (2021: \$1,311 million) and a fair value of \$1,160 million (2021: \$1,453 million). The fair value of the Company's debt is based on prices obtained from a third-party pricing service and is determined using the spread above the risk-free yield curve. These spreads are generally obtained from the new issue market, secondary trading and broker-dealer quotes. As the yields for the risk-free yield curve and the spreads are observable market inputs, the fair value of this debt is classified as Level 2.

At December 31, 2022, Federal Home Loan Bank advances were recorded at amortized cost with a carrying value of \$81 million (2021: \$nil) and a fair value of \$81 million (2021: \$nil). As these advances are not actively traded, their fair values are classified as Level 2.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

7. DERIVATIVE INSTRUMENTS

The following table provides the balance sheet classifications of derivatives recorded at fair value:

	December 31, 2022			December 31, 2021		
	Derivative notional amount	Derivative asset fair value ⁽¹⁾	Derivative liability fair value ⁽¹⁾	Derivative notional amount	Derivative asset fair value ⁽¹⁾	Derivative liability fair value ⁽¹⁾
<i>Relating to investment portfolio:</i>						
Foreign exchange forward contracts	\$ 54,076	\$ 81	\$ 559	\$ 184,187	\$ 13	\$ 1,463
<i>Relating to underwriting portfolio:</i>						
Foreign exchange forward contracts	1,441,273	37,601	144	1,258,836	3,103	13,524
Other underwriting-related contracts	—	—	—	50,000	—	5,630
Total derivatives		<u>\$ 37,682</u>	<u>\$ 703</u>		<u>\$ 3,116</u>	<u>\$ 20,617</u>

(1) Derivative assets and derivative liabilities are classified within other assets and other liabilities in the consolidated balance sheets.

The notional amounts of derivative contracts represent the basis on which amounts paid or received are calculated and are presented in the above table to quantify the volume of the Company's derivative activities. Notional amounts are not reflective of credit risk.

None of the Company's derivative instruments are designated as hedges.

Offsetting Assets and Liabilities

The Company's derivative instruments are generally traded under International Swaps and Derivatives Association master netting agreements which establish terms that apply to all transactions. In the event of a bankruptcy or other stipulated event, master netting agreements provide that individual positions be replaced with a new amount, usually referred to as the termination amount, determined by taking into account market prices and converting into a single currency. Effectively, this contractual close-out netting reduces credit exposure from gross to net exposure.

The following table provides a reconciliation of gross derivative assets and liabilities to the net amounts presented in the consolidated balance sheets, with the difference being attributable to the impact of master netting agreements:

	December 31, 2022			December 31, 2021		
	Gross amounts	Gross amounts offset	Net amounts ⁽¹⁾	Gross amounts	Gross amounts offset	Net amounts ⁽¹⁾
Derivative assets	\$ 41,762	\$ (4,080)	\$ 37,682	\$ 9,047	\$ (5,931)	\$ 3,116
Derivative liabilities	\$ 4,783	\$ (4,080)	\$ 703	\$ 26,548	\$ (5,931)	\$ 20,617

(1) Net asset and liability derivatives are classified within other assets and other liabilities in the consolidated balance sheets.

a) Relating to Investment Portfolio

Foreign Currency Risk

The Company's investment portfolio is exposed to foreign currency risk therefore the fair values of its investments are partially influenced by changes in foreign exchange rates. The Company may enter into foreign exchange forward contracts to manage the effect of this foreign currency risk. These foreign currency hedging activities are not designated as specific hedges for financial reporting purposes.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

7. DERIVATIVE INSTRUMENTS (CONTINUED)

b) Relating to Underwriting Portfolio

Foreign Currency Risk

The Company's insurance and reinsurance subsidiaries and branches operate in various countries. Some of its business is written in currencies other than the U.S. dollar, therefore the underwriting portfolio is exposed to significant foreign currency risk. The Company manages foreign currency risk by seeking to match its foreign-denominated net liabilities under insurance and reinsurance contracts with cash and investments that are denominated in the same currencies. The Company uses derivative instruments, specifically, forward contracts to economically hedge foreign currency exposures.

Other Underwriting-related Risks

The Company enters into insurance and reinsurance contracts that are accounted for as derivatives. These insurance or reinsurance contracts provide indemnification to an insured or cedant as a result of a change in a variable as opposed to an identifiable insurable event. The Company considers these contracts to be part of its underwriting operations.

The following table provides the total unrealized and realized gains (losses) recognized in net income (loss) for derivatives not designated as hedges:

		Consolidated statement of operations line item that includes gain (loss) recognized in net income (loss)	Amount of gain (loss) recognized in net income (loss)		
			2022	2021	2020
<i>Relating to investment portfolio:</i>					
Foreign exchange forward contracts	Net investment gains (losses)	\$ 7,656	\$ 4,346	\$ (2,434)	
<i>Relating to underwriting portfolio:</i>					
Foreign exchange forward contracts	Foreign exchange (losses) gains	(31,609)	(50,738)	44,166	
Other underwriting-related contracts	Other insurance related income (loss)	3,542	2,742	(9,035)	
Total		\$ (20,411)	\$ (43,650)	\$ 32,697	

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES

Reserving Methodology

Sources of Information

The Company's loss reserving process begins with the collection and analysis of paid and incurred claim data for each of the Company's segments. The segment data is disaggregated by line of business and further disaggregated by underwriting year and accident year. Underwriting year or accident year information is used to analyze the Company's business and to estimate reserves for losses and loss expenses. Lines of business are reviewed to ensure that the underlying contracts have homogeneous loss development characteristics, while remaining large enough to make the estimation of trends credible. The Company's lines of business are reviewed on a regular basis and adjusted over time as the Company's business evolves. The paid and incurred claim data serves as a key input to many of the methods employed by the Company's actuaries.

The following tables map the Company's lines of business to expected claim tails:

Insurance segment	Expected claims tail		
	Short	Medium	Long
Lines of business			
Property	X		
Accident and health	X		
Marine and aviation	X		
Cyber		X	
Professional lines		X	
Credit and political risk		X	
Liability			X
Reinsurance segment			
	Short	Medium	Long
Lines of business			
Accident and health	X		
Agriculture	X		
Marine and aviation	X		
Professional lines		X	
Credit and surety		X	
Motor			X
Liability			X
<i>Run-off lines</i>			
Catastrophe	X		
Property	X		
Engineering	X		

Actuarial Analysis

Multiple actuarial methods are available to estimate ultimate losses. Each method has its own assumptions and its own advantages and disadvantages, with no single estimation method being better than the others in all situations and no one set of assumption variables being meaningful for all lines of business. The relative strengths and weaknesses of the particular estimation methods when applied to a particular group of claims can also change over time.

The following is a brief description of the reserve estimation methods commonly employed by the Company's actuaries including a discussion of their particular strengths and weaknesses:

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

- *Expected Loss Ratio Method ("ELR Method")*: This method estimates ultimate losses for an accident year or underwriting year by applying an expected loss ratio ("ELR") to the earned or written premium for that year. Generally, expected loss ratios are based on one or more of (a) an analysis of historical loss experience to date, (b) pricing information and (c) industry data, adjusted as appropriate, to reflect changes in rates, loss and exposure trends, and terms and conditions. This method is insensitive to actual incurred losses for the accident year or underwriting year in question and is, therefore, often useful in the early stages of development when very few losses have been incurred. Conversely, the lack of sensitivity to incurred/paid losses for the accident year or underwriting year in question means that this method is usually inappropriate in later stages of an accident year or underwriting year's development.
- *Loss Development Method (also referred to as the "Chain Ladder Method" or "Link Ratio Method")*: This method assumes that the losses incurred/paid for each accident year or underwriting year at a particular development stage follow a relatively similar pattern. It assumes that on average, every accident year or underwriting year will display the same percentage of ultimate losses incurred/paid at the same point in time after the inception of that year. The percentages incurred/paid are established for each development stage (e.g., 12 months, 24 months, etc.) after examining averages from historical loss development data and/or, in limited instances, external industry benchmark information. Ultimate losses are then estimated by multiplying the actual incurred/paid losses by the reciprocal of the established incurred/paid percentage. The strengths of this method are that it reacts to loss emergence/payments and that it makes full use of historical claim emergence/payment experience. However, this method has weaknesses when the underlying assumption of stable loss development/payment patterns is not valid. This could be the consequence of changes in business mix, claim inflation trends or claim reporting practices and/or the presence of large claims, among other things. Furthermore, this method tends to produce volatile estimates of ultimate losses where there is volatility in the underlying incurred/paid patterns. In particular, where the expected percentage of incurred/paid losses is low, small deviations between actual and expected claims can lead to very volatile estimates of ultimate losses. As a result, this method is often unsuitable at early development stages for an accident year or underwriting year.
- *Bornhuetter-Ferguson Method ("BF Method")*: This method can be seen as a combination of the ELR and Loss Development Methods, under which the Loss Development Method is given progressively more weight as an accident year or underwriting year matures. The main advantage of the BF Method is that it provides a more stable estimate of ultimate losses than the Loss Development Method at earlier stages of development, while remaining more responsive to emerging loss development than the ELR Method. In addition, the BF Method allows for the incorporation of external market information through the use of expected loss ratios, whereas the Loss Development Method does not incorporate such information.

As part of the loss reserving process, the Company's actuaries employ the estimation method(s) that they believe will produce the most reliable estimate of ultimate losses, at that particular evaluation date, for each line of business and accident year or underwriting year combination. Often, this is a blend (i.e., weighted average) of the results of two or more appropriate actuarial methods.

These ultimate loss estimates are generally utilized to evaluate the adequacy of ultimate loss estimates for previous accident or underwriting years, established in the prior reporting period. For the initial estimate of the current accident or underwriting year, the available claim data is typically insufficient to produce a reliable estimate of ultimate losses. As a result, initial estimates for an accident or underwriting year are generally based on the ELR Method for longer tailed lines and a BF Method for shorter tailed lines.

The initial ELR for each line of business is established by the Company's actuaries at the start of the year as part of the planning process, taking into consideration prior accident years' or underwriting years' experience and industry benchmarks, adjusted after considering factors such as loss and exposure trends, rate differences, changes in contract terms and conditions, business mix changes and other known differences between the current year and prior accident or underwriting years. The initial expected loss ratios for a given accident or underwriting year may be modified over time if the underlying assumptions, such as loss development or premium rate changes, differ from the original assumptions.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Key Actuarial Assumptions

The use of the above actuarial methods requires the Company to make certain explicit assumptions, the most significant of which are: (1) expected loss ratios and (2) loss development patterns.

The Company relies on historical loss experience in establishing expected loss ratios and selecting loss development patterns. In establishing expected loss ratios for the insurance segment, consideration is given to a number of other factors, including exposure trends, rate adequacy on new and renewal business, ceded reinsurance costs, changes in claims emergence and the Company's underwriters' view of terms and conditions in the market environment. For the reinsurance segment, expected loss ratios are based on a contract-by-contract review, which considers information provided by clients together with estimates provided by the Company's underwriters and actuaries about the impact of changes in pricing, terms and conditions and coverage. Market experience for some lines of business as compiled and analyzed by an independent actuarial firm is also considered, as appropriate.

Claim Tail Analysis

Short-tail Business

Short-tail business generally includes exposures for which losses are usually known and paid within a relatively short period of time after the underlying loss event has occurred. Short-tail business includes the underlying exposures in the property, accident and health, marine and aviation lines of business in the insurance segment, and the underlying exposures in the accident and health, agriculture, marine and aviation, and run-off (catastrophe, property and engineering) lines of business in the reinsurance segment.

The key actuarial assumptions for short-tail business are primarily developed with reference to the Company's historical loss experience for expected loss ratios and loss development patterns utilized to establish estimates of ultimate losses for an accident year or underwriting year. Due to the relatively short reporting and settlement patterns for short-tail business, more weight is generally placed on experience-based methods and other qualitative considerations in establishing reserves for recent and more mature accident years or underwriting years. The majority of development for an accident year or underwriting year is expected to be recognized in the subsequent one to three years.

Refer to '*Net incurred and Paid Claims Development Tables by Accident Year*' for further details on key actuarial assumptions associated with these lines of business.

Medium-tail Business

Medium-tail business generally has claim reporting and settlement periods that are longer than those of short-tail lines of business. Medium-tail business includes the underlying exposures in the cyber, professional lines, and credit and political risk lines of business in the insurance segment, and professional lines, and credit and surety lines of business in the reinsurance segment. The Company considers credit and political risk business to have a medium-tail, due to the complex nature of claims and the potential additional time that may be required to realize subrogation assets.

With respect to key actuarial assumptions, the Company relies on its loss experience when establishing expected loss ratios and selecting loss development patterns. Loss reporting patterns for medium tail lines business tend to be volatile, causing instability in actuarial indications based on incurred loss data until an accident year or underwriting year matures. Consequently, initial reserves for losses and loss expenses for an accident year or underwriting year are generally based on an ELR Method and the consideration of relevant qualitative factors. As accident years and underwriting years mature, the Company increasingly gives more weight to methods that reflect its experience until its selections are based almost exclusively on experience-based methods. The Company evaluates the appropriateness of the transition to experience-based methods at the line of business level, commencing this transition when it believes that its incurred loss development is sufficient to produce meaningful actuarial indications. The rate at which the Company transitions fully to sole reliance on experience-based methods can vary by line of business and by year, depending on its assessment of the stability and relevance of such indications.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Refer to *'Net incurred and Paid Claims Development Tables by Accident Year'* for further details on key actuarial assumptions associated with these lines of business.

Long-tail Business

In contrast to short and medium-tail business, the claim tail for long-tail business is expected to be notably longer, as claims are often reported and ultimately paid or settled years, or even decades, after the related loss events occur. Long-tail business includes the underlying exposures in the liability line of business in the insurance segment and the liability and motor line of business in the reinsurance segment.

As a general rule, estimates of accident year or underwriting year ultimate losses for long-tail business are notably more uncertain than those for short and medium-tail business. Key actuarial assumptions for long-tail business were derived from the Company's historical loss experience. Due to the length of the development tail for this business, reserve estimates for most accident years and underwriting years are predominantly based on the BF Method or ELR Method and the consideration of qualitative factors. A consequence of the claim development tail is that this line of business is particularly exposed, among a number of uncertainties, to the potential for unanticipated levels of claim inflation relative to that assumed when the contracts were written. Factors influencing claim inflation on this line of business can include, but are not limited to, underlying financial and medical inflation, judicial inflation, mass tort and changing social trends.

Refer to *'Net incurred and Paid Claims Development Tables by Accident Year'* for further details on key actuarial assumptions associated with these lines of business.

Reserving for Catastrophic Events

The Company cannot estimate losses from widespread catastrophic events, such as hurricanes and earthquakes, using the traditional actuarial methods described above. The magnitude and complexity of losses associated with certain of these events inherently increase the level of uncertainty and, therefore, the level of management judgment involved in arriving at estimated net reserves for losses and loss expenses. As a result, actual losses for these events may ultimately differ materially from current estimates.

Net reserves for losses and loss expenses related to the COVID-19 pandemic represents the Company's best estimate of losses and loss expenses that have been incurred at December 31, 2022. The determination of these net reserves for losses and loss expenses was based on the Company's ground-up assessment of coverage from individual contracts and treaties across all lines of business, and included a review of modeling analyses and market information, where appropriate. In addition, the Company considered information received from clients, brokers and loss adjusters.

The estimate of net reserves for losses and loss expenses related to the COVID-19 pandemic is subject to significant uncertainty. This uncertainty is driven by the inherent difficulty in making assumptions around the impact of the COVID-19 pandemic due to the lack of comparable events, the ongoing nature of the event, and its far-reaching impacts on world-wide economies and the health of the population. These assumptions include:

- the nature and the duration of the pandemic;
- the effects on health, the economy and the Company's customers;
- the response of government bodies including legislative, regulatory or judicial actions and social influences that could alter the interpretation of the Company's contracts;
- the coverage provided under the Company's contracts;
- the coverage provided by the Company's ceded reinsurance; and
- the evaluation of the loss and impact of loss mitigation actions.

While the Company believes its estimate of net reserves for losses and loss expenses is adequate for losses and loss expenses that have been incurred at December 31, 2022 based on current facts and circumstances, the Company continues

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

to monitor the appropriateness of these assumptions as new information comes to light, and adjustments are made to the estimate of ultimate losses related to the COVID-19 pandemic if there are developments that are different from previous expectations. Adjustments are recorded in the period in which they are identified. Actual losses for this event may ultimately differ materially from the Company's current estimates.

Net reserves for losses and loss expenses related to catastrophes other than the COVID-19 pandemic represent the Company's best estimate of losses and loss expenses that have been incurred at December 31, 2022. The determination of these net reserves for losses and loss expenses is estimated by management after a catastrophe occurs by completing an in-depth analysis of individual contracts which may potentially have been impacted by the catastrophic event. This in-depth analysis may rely on several sources of information including:

- estimates of the size of insured industry losses from the catastrophic event and the Company's corresponding market share;
- a review of the Company's portfolio of contracts to identify those contracts which may be exposed to the catastrophic event;
- a review of modeled loss estimates based on information previously reported by customers and brokers, including exposure data obtained during the underwriting process;
- a review of the coverage provided by the Company's ceded reinsurance;
- discussions of the impact of the event with customers and brokers; and
- catastrophe bulletins published by various independent statistical reporting agencies.

A blend of these information sources is generally used to arrive at aggregate estimates of the ultimate losses arising from these catastrophic events.

While the Company believes its estimate of net reserves for losses and loss expenses is adequate for losses and loss expenses that have been incurred at December 31, 2022 based on current facts and circumstances, the Company monitors changes in paid and incurred losses in relation to each catastrophe in subsequent reporting periods and adjustments are made to estimates of ultimate losses for each event if there are developments that are different from previous expectations. Adjustments are recorded in the period in which they are identified. Actual losses for these events may ultimately differ materially from the Company's current estimates.

Selection of Reported Reserves – Management's Best Estimate

The Company's loss reserving process involves the collaboration of its underwriting, claims, actuarial, ceded reinsurance and finance departments, including multiple committee meetings and culminates with the approval of a single point best estimate by the Company's Group Reserving Committee, which comprises senior management. In selecting this best estimate, management considers actuarial estimates and applies informed judgment regarding qualitative factors that may not be fully captured in these actuarial estimates. Such factors include, but are not limited to, the timing of the emergence of claims, volume and complexity of claims, social and judicial trends, potential severity of individual claims and the extent of Company historical loss data versus industry information. While these qualitative factors are considered in arriving at the point estimate, no specific provisions for qualitative factors are established.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reserve for Losses and Loss Expenses

Reserve for losses and loss expenses comprise the following:

At December 31,	2022	2021
Reserve for reported losses and loss expenses	\$ 5,555,865	\$ 5,539,971
Reserve for losses incurred but not reported	9,612,998	9,113,123
Reserve for losses and loss expenses	\$ 15,168,863	\$ 14,653,094

Reserve Roll-forward

The following table presents a reconciliation of the Company's beginning and ending gross reserves for losses and loss expenses and net reserves for unpaid losses and loss expenses:

Year ended December 31,	2022	2021	2020
Gross reserve for losses and loss expenses, beginning of year	\$ 14,653,094	\$ 13,926,766	\$ 12,752,081
Less reinsurance recoverable on unpaid losses, beginning of year	(5,017,611)	(4,496,641)	(3,877,756)
Net reserve for unpaid losses and loss expenses, beginning of year	9,635,483	9,430,125	8,874,325
Net incurred losses and loss expenses related to:			
Current year	3,267,943	3,041,193	3,297,161
Prior years	(25,533)	(32,410)	(15,909)
	3,242,410	3,008,783	3,281,252
Net paid losses and loss expenses related to:			
Current year	(457,857)	(490,011)	(571,442)
Prior years	(2,397,213)	(2,274,240)	(2,365,959)
	(2,855,070)	(2,764,251)	(2,937,401)
Foreign exchange and other	(685,132)	(39,174)	211,949
Net reserve for unpaid losses and loss expenses, end of year	9,337,691	9,635,483	9,430,125
Reinsurance recoverable on unpaid losses, end of year	5,831,172	5,017,611	4,496,641
Gross reserve for losses and loss expenses, end of year	\$ 15,168,863	\$ 14,653,094	\$ 13,926,766

The Company writes business with loss experience generally characterized as low frequency and high severity in nature, which can result in volatility in its financial results. During 2022, 2021 and 2020, the Company recognized catastrophe and weather-related losses, net of reinstatement premiums, of \$403 million, \$443 million and \$774 million.

On December 9, 2022, the Company entered into loss portfolio transfer reinsurance agreements with a third-party reinsurer which were deemed to have met the established criteria for retroactive reinsurance accounting. At December 31, 2022, foreign exchange and other included an increase in reinsurance recoverable on unpaid losses of \$422 million related to this transaction.

At December 31, 2021, foreign exchange and other included a decrease in reinsurance recoverable on unpaid losses of \$49 million related to the Reinsurance to Close of the 2018 year of account of Syndicate 2007.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Estimates for Catastrophe Events

At December 31, 2022, net reserve for losses and loss expenses included estimated amounts for numerous catastrophe events. The magnitude and complexity of losses arising from certain of these events inherently increase the level of uncertainty and, therefore, the level of management judgment involved in arriving at estimated net reserves for losses and loss expenses. These events include Hurricane Ian, Winter Storm Elliot, June European Convective Storms, the Russia-Ukraine war and COVID-19 in 2022, Hurricane Ida, U.S. Winter Storms Uri and Viola, and July European Floods in 2021, and the COVID-19 pandemic, Hurricanes Laura, Sally, Zeta and Delta, Midwest derecho and wildfires across the West Coast of the United States in 2020. As a result, actual losses for these events may ultimately differ materially from current estimates.

Prior Year Reserve Development

The Company's net favorable prior year reserve development arises from changes to estimates for losses and loss expenses related to loss events that occurred in previous calendar years. The following table presents net prior year reserve development by segment:

	Net Favorable Prior Year Reserve Development		
	Insurance	Reinsurance	Total
Year ended December 31, 2022	\$ 16,350	\$ 9,183	\$ 25,533
Year ended December 31, 2021	\$ 18,360	\$ 14,049	\$ 32,410
Year ended December 31, 2020	\$ 8,937	\$ 6,972	\$ 15,909

The following sections provide further details on net prior year reserve development by segment, line of business and accident year.

Insurance Segment:

Years ended December 31,	Favorable (Adverse)		
	2022	2021	2020
Property	\$ 52,512	\$ 71,032	\$ 44,054
Accident and health	(12,856)	15,844	2,738
Marine and aviation	27,927	42,535	23,195
Cyber	8,416	(7,329)	2,205
Professional lines	(29,093)	(71,258)	(37,866)
Credit and political risk	24,361	10,363	(745)
Liability	(54,917)	(42,827)	(24,644)
Total	\$ 16,350	\$ 18,360	\$ 8,937

In 2022, we recognized \$16 million of net favorable prior year reserve development, the principal components of which were:

- \$53 million of net favorable prior year reserve development on property business primarily due to better than expected loss emergence attributable to 2018 and 2020 catastrophe events and decreases in loss estimates attributable to specific large claims related to 2012 and older accident years.
- \$28 million of net favorable prior year reserve development on marine and aviation business primarily due to better than expected loss emergence attributable to the marine cargo and specie, and marine offshore energy books of business mainly related to the 2018, 2019 and 2021 accident years, and better than expected loss emergence attributable to aviation business mainly related to the 2021 accident year.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

- \$24 million of net favorable prior year reserve development on credit and political risk business primarily due to better than expected loss emergence mainly related to the 2017 through 2021 accident years.
- \$8 million of net favorable prior year reserve development on cyber business primarily due to better than expected loss emergence mainly related to 2020 and older accident years, partially offset by reserve strengthening related to the 2021 accident year.
- \$55 million of net adverse prior year reserve development on liability business primarily due to reserve strengthening within the U.S. programs book of business mainly related to the 2016 through 2021 accident years, and the U.S. primary casualty book of business mainly related to the 2015 through 2018 and the 2021 accident years.
- \$29 million of net adverse prior year reserve development on professional lines business primarily due to reserve strengthening within the U.S. commercial management solutions book of business mainly related to the 2015, 2018 and 2019 accident years.
- \$13 million of net adverse prior year development on accident and health business primarily due to reserve strengthening mainly related to the 2019 through 2021 accident years.

In 2021, we recognized \$18 million of net favorable prior year reserve development, the principal components of which were:

- \$71 million of net favorable prior year reserve development on property business primarily due to decreases in loss estimates attributable to specific large claims related to the 2011 and 2012 accident years, and better than expected loss emergence attributable to 2018 to 2020 catastrophe events, and the global property book of business related to the 2017 through 2019 accident years.
- \$43 million of net favorable prior year reserve development on marine and aviation business primarily due to better than expected loss emergence attributable to marine cargo, marine offshore energy and marine specie books of business mainly related to the 2017, 2018 and 2020 accident years, decreases in loss estimates attributable to specific large marine claims related to the 2012 accident year, and better than expected loss emergence attributable to aviation business mainly related to the 2020 accident year.
- \$16 million of net favorable prior year reserve development on accident and health business primarily due to better than expected loss emergence related to the 2019 and 2020 accident years.
- \$10 million of net favorable prior year reserve development on credit and political risk business primarily due to better than expected loss emergence mainly related to the 2018 and 2019 accident years.
- \$71 million of net adverse prior year reserve development on professional lines business primarily due to reserve strengthening within run-off lines of business mainly related to the 2016 through 2019 accident years and the U.S. commercial management solutions book of business mainly related to the 2017 and 2019 accident years.
- \$43 million of net adverse prior year reserve development on liability business primarily due to reserve strengthening within the program book of business mainly related to the 2018 and 2019 accident years.
- \$7 million of net adverse prior year reserve development on cyber business primarily due to reserve strengthening within the global cyber and technology book of business mainly related to the 2019 accident year.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

In 2020, we recognized \$9 million of net favorable prior year reserve development, the principal components of which were:

- \$44 million of net favorable prior year reserve development on property business primarily due to better than expected loss emergence mainly related to the 2018 and 2019 accident years, and better than expected loss emergence attributable to 2017 to 2019 catastrophe events.
- \$23 million of net favorable prior year reserve development on marine and aviation business primarily due to better than expected loss emergence attributable to marine business mainly related to the 2018 accident year.
- \$38 million of net adverse prior year reserve development on professional lines business primarily due to reserve strengthening within the European professional indemnity and financial institutions books of business and the U.S. commercial management solutions book of business mainly related to the 2018 and 2019 accident years, and an increase in the loss estimate attributable to a specific large claim related to the 2009 accident year.
- \$25 million of net adverse prior year reserve development on liability business primarily due to reserve strengthening within the U.S. primary casualty, U.S. excess casualty and program books of business mainly related to the 2017 and 2018 accident years.

Reinsurance Segment:

Years ended December 31,	Favorable (Adverse)		
	2022	2021	2020
Accident and health	\$ 14,199	\$ 5,861	\$ 7,373
Agriculture	11,703	423	5,606
Marine and aviation	2,597	(10,767)	(12,664)
Professional lines	(54,820)	(23,718)	(15,352)
Credit and surety	43,567	3,436	36,828
Motor	18,161	43,968	21,086
Liability	(58,148)	(17,919)	(29,656)
<i>Run-off lines</i>			
Catastrophe	(504)	(36)	(3,547)
Property	42,523	17,651	6,818
Engineering	(10,095)	(4,850)	(9,520)
<i>Total run-off lines</i>	<u>31,924</u>	<u>12,765</u>	<u>(6,249)</u>
Total	<u>\$ 9,183</u>	<u>\$ 14,049</u>	<u>\$ 6,972</u>

In 2022, we recognized \$9 million of net favorable prior year reserve development, the principal components of which were:

- \$44 million of net favorable development on credit and surety business primarily due to better than expected loss emergence mainly related to the 2015 through 2021 accident years, most notably within the mortgage book of business related to the 2020 and 2021 accident years.
- \$18 million of net favorable prior year reserve development on motor business primarily due to better than expected loss emergence mainly related to the 2017 through 2020 accident years.
- \$14 million of net favorable development on accident and health business primarily due to better than expected loss emergence mainly related to the 2019 through 2021 accident years.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

- \$12 million of net favorable development on agriculture business primarily due to better than expected loss emergence mainly related to the 2019 and 2021 accident years.
- \$58 million of net adverse development on liability business primarily due to increases in loss estimates attributable to specific large claims related to the 2018 and 2021 accident years and reserve strengthening within the U.S. non-proportional books of business related to the 2016 through 2019 accident years.
- \$55 million of net adverse prior year reserve development on professional lines business primarily due to increases in loss estimates attributable to one cedant related to several accident years, and reserve strengthening within the U.S. public D&O proportional books of business related to 2017 and older accident years.

Run-off lines

- \$43 million of net favorable development on property business primarily due to better than expected loss emergence attributable to 2017 through 2021 catastrophe events and better than expected attritional loss emergence attributable to the 2021 accident year.
- \$10 million of net adverse prior year reserve development on engineering business primarily due to increases in loss estimates attributable to specific large claims mainly related to the 2011, 2018 and 2019 accident years.

In 2021, we recognized \$14 million of net favorable prior year reserve development, the principal components of which were:

- \$44 million of net favorable prior year reserve development on motor business primarily due to proportional and non-proportional treaty business mainly related to 2016 and older accident years.
- \$6 million of net favorable prior year development on accident and health business primarily due to better than expected loss emergence mainly related to the 2019 and 2020 accident years.
- \$24 million of net adverse prior year reserve development on professional lines business primarily due to reserve strengthening within the U.S. and European books of business related to the 2015 through 2018 accident years and increases in the loss estimates attributable to specific large claims related to the 2015 to 2017 accident years.
- \$18 million of net adverse prior year reserve development on liability business primarily due to increases in loss estimates attributable to specific large claims related to the 2017 and 2018 accident years and reserve strengthening within the commercial auto liability and U.S. multiline/regional books of business related to the 2018 accident year.
- \$11 million of net adverse prior year development on marine and aviation business primarily due to an increase in the loss estimate attributable to specific large claim mainly related to 2018 accident year.

Run-off lines

- \$18 million of net favorable prior year reserve development on property business primarily due to decreases in loss estimates attributable to specific large claims related to the 2009, and 2017 through 2019 accident years, and better than expected loss emergence attributable to 2017 through 2019 catastrophe events, partially offset by reserve strengthening attributable to 2020 catastrophe events.
- \$5 million of net adverse prior year development on engineering business primarily due to reserve strengthening mainly related to the 2016, 2017 and 2019 accident years, partially offset by decreases in loss estimates attributable to specific large claims related to the 2018 accident year.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

In 2020, we recognized \$7 million of net favorable prior year reserve development, the principal components of which were:

- \$37 million of net favorable prior year reserve development on credit and surety business primarily due to better than expected loss emergence related to several accident years.
- \$21 million of net favorable prior year reserve development on motor business primarily due to non-proportional treaty business mainly related to older accident years, partially offset by increases in loss estimates for proportional treaty business mainly related to the 2018 accident year.
- \$7 million of net favorable prior year development on accident and health business primarily due to better than expected loss emergence mainly related to 2018 and 2019 accident years.
- \$6 million of net favorable prior year development on agriculture business primarily due to better than expected loss emergence mainly related to 2018 and 2019 accident years.
- \$30 million of net adverse prior year reserve development on liability business primarily due to reserve strengthening within the U.S. casualty, the U.S. multiline/regional and the European books of business mainly related to the 2016 through 2019 accident years and an increase in the loss estimate attributable to a specific large claim related to the 2009 accident year.
- \$15 million of net adverse prior year reserve development on professional lines business primarily due to an increase in the loss estimate attributable to a specific large claim related to the 2016 accident year and reserve strengthening within the European book of business mainly related to the 2016 to 2018 accident years.
- \$13 million of net adverse prior year development on marine and aviation business primarily due to an increase in the loss estimate attributable to a specific large claim related to the 2019 accident year.

Run-off lines

- \$7 million of net favorable prior year development on property business primarily due to better than expected loss emergence attributable to 2019 catastrophe events.
- \$10 million of net adverse prior year development in engineering business primarily due to reserve strengthening mainly related to the 2016 through 2018 accident years.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Net Incurred and Paid Claims Development Tables by Accident Year

The following tables present net incurred and paid claims development by accident year, total incurred-but-not-reported liabilities plus expected development on reported claims, cumulative reported claims frequency and average annual percentage payout of incurred claims by age for each lines of business. The loss development tables are presented on an accident year basis for each line of business in the insurance and reinsurance segments. The Company does not discount reserves for losses and loss expenses.

Non-U.S. dollar denominated loss data is converted to U.S. dollar at the rates of exchange in effect at the balance sheet date for material underlying currencies. Fluctuations in foreign currency exchange rates may cause material shifts in loss development. Reserves for losses and loss expenses disclosed in the consolidated balance sheets are also remeasured using the rates of exchange in effect at the balance sheet date.

There are many considerations in establishing net reserves for losses and loss expenses. An attempt to evaluate net reserves for losses and loss expenses using solely the paid losses and claim counts presented in these tables could be misleading. When projecting net reserves for losses and loss expenses, the Company relies on several inputs in addition to the information presented in this disclosure including case incurred loss projections, changes in mix of business, external trends, and additional qualitative information. The Company cautions against mechanical application of standard actuarial methodologies to project ultimate losses using data presented in this disclosure.

Insurance Segment

The reporting of cumulative claims frequency for the lines of business within the insurance segment has been measured by counting the number of unique claim references including claim references assigned to nil and nominal case reserves. Claim references are grouped by claimant by loss event for each lines of business. For certain insurance facilities and business produced by managing general agents where underlying data is reported to the Company in an aggregated format, the information necessary to provide cumulative claims frequency is not available therefore reporting of claims frequency is deemed to be impracticable.

Insurance Property

The property line of business provides physical loss or damage, business interruption and machinery breakdown cover for virtually all types of property, including commercial buildings, residential premises, construction projects and onshore renewable energy installations, and physical damage and business interruption following an act of terrorism. This line of business includes primary and excess risks, some of which are catastrophe-exposed.

In general, reporting and payment patterns are relatively short-tailed although they can be volatile due to the incidence of catastrophe events.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance property													
Incurred claims and allocated claim adjustment expenses, net of reinsurance											At December 31, 2022		
Accident year	For the years ended December 31,										Total of incurred-but-not-reported liabilities plus expected development on reported claims	Cumulative number of reported claims	
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022			
2013	\$ 269,749	\$ 263,335	\$ 236,276	\$ 232,389	\$ 231,357	\$ 241,593	\$ 240,025	\$ 239,742	\$ 239,749	\$ 239,662	\$	608	3,455
2014		288,993	287,038	276,777	262,345	261,928	259,507	255,612	252,918	252,842		846	4,128
2015			207,460	199,738	191,987	189,724	186,403	188,334	178,338	180,614		322	4,168
2016				263,277	286,359	278,599	264,244	258,563	259,012	258,432		1,763	6,589
2017					790,282	696,217	688,738	679,272	674,642	674,955		16,736	10,037
2018						601,920	648,546	628,383	620,745	619,470		8,696	9,586
2019							365,895	354,498	344,865	356,278		3,174	9,470
2020								639,024	625,403	574,412		45,011	12,282
2021									375,903	371,684		22,282	7,562
2022										412,001		168,886	5,412
									Total	<u>\$3,940,350</u>			

Insurance property													
Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance													
Accident year	For the years ended December 31,										2022		
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022			
2013	\$ 58,733	\$ 167,580	\$ 204,735	\$ 214,480	\$ 225,390	\$ 228,191	\$ 229,834	\$ 233,526	\$ 236,432	\$ 236,997	\$	236,997	
2014		100,650	201,651	244,033	249,980	253,810	254,575	251,427	252,414	252,430		252,430	
2015			67,511	144,649	165,616	179,204	178,913	185,314	176,515	181,344		181,344	
2016				82,211	206,273	242,194	249,831	250,150	255,203	252,620		252,620	
2017					190,341	509,810	617,753	645,828	640,919	630,476		630,476	
2018						218,618	463,312	556,715	566,699	584,059		584,059	
2019							145,706	251,353	297,493	334,179		334,179	
2020								181,569	419,718	473,647		473,647	
2021									133,811	284,795		284,795	
2022										97,207		97,207	
									Total	<u>3,327,754</u>			
												All outstanding liabilities before 2013, net of reinsurance	12,328
												Liabilities for claims and claim adjustment expenses, net of reinsurance	<u>\$ 624,924</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance property									
<i>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</i>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
32.9%	41.6%	13.9%	4.7%	1.4%	1.1%	(1.6%)	1.5%	0.6%	0.2%

Insurance Accident and Health

The accident and health line of business includes accidental death, travel insurance and specialty health products for employer and affinity groups.

In general, reporting and payment patterns are relatively short-tailed although they can be volatile due to the incidence of catastrophe events. An increase in limited benefits medical business written in 2017 resulted in a significant increase in reported claims observed in that year.

Insurance accident and health												
<i>Incurred claims and allocated claim adjustment expenses, net of reinsurance</i>											<i>At December 31, 2022</i>	
<u>Accident year</u>	<i>For the years ended December 31,</i>										<i>Total of incurred-but-not-reported liabilities plus expected development on reported claims</i>	<i>Cumulative number of reported claims</i>
	<u>2013</u> unaudited	<u>2014</u> unaudited	<u>2015</u> unaudited	<u>2016</u> unaudited	<u>2017</u> unaudited	<u>2018</u> unaudited	<u>2019</u> unaudited	<u>2020</u> unaudited	<u>2021</u> unaudited	<u>2022</u>		
2013	\$ 38,763	\$ 34,160	\$ 34,413	\$ 34,383	\$ 35,045	\$ 35,245	\$ 33,026	\$ 32,794	\$ 33,916	\$ 35,353	\$ 1,220	49,549
2014		70,803	66,137	65,588	64,057	63,685	64,420	63,645	62,846	61,479	656	58,081
2015			69,643	67,991	64,511	62,720	63,278	62,966	62,298	62,958	1,495	44,138
2016				84,024	83,697	84,118	85,247	84,921	85,938	85,738	1,597	87,001
2017					112,583	118,736	116,690	114,782	114,855	114,738	160	688,000
2018						109,900	113,711	112,819	110,861	111,865	170	738,139
2019							72,971	74,084	64,586	68,074	(482)	668,008
2020								69,316	63,476	66,975	1,475	713,198
2021									69,349	71,672	1,695	418,260
2022										98,419	46,362	227,274
										Total	\$ 777,271	

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance accident and health											
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>											
For the years ended December 31,											
<u>Accident year</u>	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>	
2013	\$ 16,332	\$ 29,732	\$ 31,088	\$ 32,330	\$ 32,455	\$ 32,675	\$ 32,744	\$ 32,902	\$ 34,324	\$ 34,385	
2014		31,094	55,506	59,416	60,571	61,226	61,556	61,428	60,364	60,773	
2015			30,760	55,604	58,702	59,574	60,585	60,461	61,116	61,208	
2016				40,548	77,102	80,888	81,731	82,791	83,188	83,896	
2017					62,112	106,988	112,172	113,583	114,694	113,874	
2018						60,816	104,196	106,590	110,259	111,146	
2019							44,546	60,783	62,277	67,232	
2020								36,155	51,948	60,375	
2021									39,096	61,291	
2022										46,279	
									Total	700,459	
											50
											\$ 76,862

Insurance accident and health									
<u>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</u>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
52.2%	35.1%	5.1%	2.8%	1.0%	0.1%	0.5%	(0.4%)	2.4%	0.2%

Insurance Marine and Aviation

The marine line of business provides cover for traditional marine classes, including offshore energy, renewable offshore energy, cargo, liability including kidnap and ransom, fine art, specie, and hull war. Offshore energy coverage includes physical damage, business interruption, operators extra expense and liability coverage for all aspects of offshore upstream energy, from exploration and construction through the operation and distribution phases.

The complex nature of claims arising under marine policies tends to result in reporting and payment patterns that are longer than those of the property line of business with marine liability exhibiting the longest marine reporting and payment patterns as claims involve passengers and third parties. Exposure to natural perils such as windstorm and earthquake can result in volatility.

The aviation line of business provides cover for hull and liability, and specific war cover primarily for passenger airlines but also for cargo operations, general aviation operations, airports, aviation authorities, security firms and product manufacturers.

The claims reporting pattern varies by insurance coverage provided. Losses arising from war or terrorism and damage to hulls of aircraft are generally reported quickly compared with liability claims which involve passengers and third parties and generally exhibit longer reporting and payment patterns. To date, the claims reported to the Company have predominantly related to damage to hulls, therefore, reporting and payment patterns have typically exhibited a relatively short-tail.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance marine and aviation												
<u>Incurring claims and allocated claim adjustment expenses, net of reinsurance</u>											At December 31, 2022	
Accident year	For the years ended December 31,										Total of incurred-but- not-reported liabilities plus expected development on reported claims	Cumulative number of reported claims
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 94,098	\$ 115,403	\$ 109,330	\$ 110,382	\$ 95,998	\$ 95,389	\$ 95,565	\$ 94,661	\$ 95,315	\$ 94,037	\$ 618	3,401
2014		79,979	66,912	71,356	64,952	66,228	64,264	56,132	53,409	52,696	922	3,550
2015			187,548	166,614	162,516	154,835	141,433	146,923	146,411	146,338	1,083	4,292
2016				115,466	111,852	109,445	101,880	101,293	100,428	101,331	1,236	4,821
2017					260,951	228,267	229,379	227,315	219,372	219,134	13,765	8,537
2018						236,572	261,748	247,886	241,156	234,514	22,650	8,699
2019							211,337	205,829	208,657	221,420	9,334	7,566
2020								206,992	178,479	161,972	24,006	6,741
2021									240,192	221,510	68,116	6,354
2022										264,395	179,643	5,240
									Total	<u>\$ 1,717,347</u>		

Insurance marine and aviation												
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>												
For the years ended December 31,												
Accident year	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 22,659	\$ 50,207	\$ 62,893	\$ 72,520	\$ 77,260	\$ 88,864	\$ 89,309	\$ 92,036	\$ 93,247	\$ 93,057		
2014		10,323	22,841	37,098	39,607	48,895	53,363	54,548	48,832	50,668		
2015			29,478	69,837	126,054	131,005	133,809	136,606	143,207	143,363		
2016				22,870	50,925	82,993	90,225	92,182	94,129	97,216		
2017					35,017	105,590	139,027	170,989	179,649	183,484		
2018						47,056	122,623	158,852	172,496	184,154		
2019							53,681	102,330	144,781	170,142		
2020								44,436	83,842	105,653		
2021									26,908	69,711		
2022										29,843		
									Total	<u>1,127,291</u>		
											All outstanding liabilities before 2013, net of reinsurance	15,112
											Liabilities for claims and claim adjustment expenses, net of reinsurance	<u>\$ 605,168</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance marine and aviation									
Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)									
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
19.8%	26.5%	21.8%	8.2%	5.9%	5.3%	2.6%	(2.6%)	2.4%	(0.2%)

Insurance Cyber

The cyber line of business provides cover for cyber, technology errors and omissions, media and miscellaneous professional liability. Cover is provided for a range of risks including data recovery and bricking, cyber-crime, liability and regulatory actions, business interruption, extortion, reputational harm, Payment Card Industry Data Security Standard and media liability.

Typically, this line of business is anticipated to exhibit medium-tail claim reporting and payment patterns with specific first party coverages tending to develop more quickly, on average.

Insurance cyber												
Incurred claims and allocated claim adjustment expenses, net of reinsurance											At December 31, 2022	
Accident year	For the years ended December 31,										Total of incurred-but-not-reported liabilities plus expected development on reported claims	Cumulative number of reported claims
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 67,211	\$ 66,409	\$ 65,870	\$ 47,310	\$ 42,557	\$ 34,399	\$ 33,537	\$ 32,591	\$ 32,557	\$ 35,564	\$ 5,447	1,335
2014		70,557	69,690	69,955	57,876	47,342	42,887	39,516	43,576	39,832	1,733	1,114
2015			65,231	63,595	63,066	51,250	50,357	50,758	52,526	49,795	5,857	1,337
2016				58,741	56,565	58,261	40,266	37,322	29,929	27,873	4,478	1,532
2017					53,187	50,794	56,910	52,058	51,050	49,327	6,722	1,623
2018						33,429	32,155	34,151	31,009	27,332	5,745	1,966
2019							54,671	58,702	81,757	81,402	16,951	2,796
2020								113,744	105,868	102,606	22,194	2,821
2021									124,596	133,673	50,583	2,356
2022										127,970	110,682	1,341
										Total	\$ 675,374	

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance cyber											
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>											
For the years ended December 31,											
<u>Accident year</u>	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>	
2013	\$ 2,179	\$ 10,833	\$ 18,990	\$ 21,149	\$ 24,114	\$ 25,564	\$ 28,104	\$ 28,626	\$ 28,745	\$ 29,117	
2014		3,136	12,162	23,330	29,962	31,260	33,819	33,732	35,440	36,070	
2015			5,572	15,333	25,544	28,501	30,865	39,470	42,515	43,635	
2016				1,348	4,637	14,141	18,502	21,333	23,136	23,207	
2017					9,354	19,165	28,331	35,897	38,029	40,553	
2018						2,171	7,327	9,874	14,786	19,193	
2019							2,775	20,810	32,193	60,129	
2020								17,712	50,038	63,216	
2021									24,082	65,391	
2022										7,825	
									Total	388,336	
										All outstanding liabilities before 2013, net of reinsurance	9,363
										Liabilities for claims and claim adjustment expenses, net of reinsurance	\$ 296,401

Insurance cyber									
<u>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</u>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
10.2%	22.4%	20.0%	16.0%	7.8%	7.9%	3.3%	2.7%	1.0%	1.0%

Insurance Professional Lines

The professional lines line of business provides directors' and officers' liability, errors and omissions liability, employment practices liability, fiduciary liability, crime, professional indemnity, medical malpractice and other financial insurance related covers for public and private commercial enterprises, financial institutions, not-for-profit organizations and other professional service providers. This business is predominantly written on a claims-made basis.

Typically, this line of business is anticipated to exhibit medium to long-tail claim reporting and payment patterns. For some professional lines in the insurance segment, the Company also relies on the evaluation of the open claim inventory in addition to the commonly employed actuarial methods when establishing reserves.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance professional lines												
Incurred claims and allocated claim adjustment expenses, net of reinsurance											At December 31, 2022	
Accident year	For the years ended December 31,										Total of incurred-but-not-reported liabilities plus expected development on reported claims	Cumulative number of reported claims
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 314,230	\$ 327,011	\$ 326,531	\$ 311,998	\$ 305,212	\$ 315,038	\$ 294,284	\$ 298,702	\$ 295,366	\$ 290,531	\$ 23,664	8,148
2014		335,549	335,403	344,642	327,693	317,641	304,932	302,187	301,754	299,310	39,805	8,759
2015			307,130	307,995	314,890	301,324	287,955	270,904	269,672	281,916	24,939	9,211
2016				286,248	291,012	295,253	313,363	325,816	335,757	338,634	32,529	10,424
2017					335,706	338,031	371,629	371,589	388,973	389,053	72,532	12,380
2018						322,911	338,625	387,583	417,600	445,652	93,119	14,996
2019							342,656	358,459	373,074	408,585	121,148	14,335
2020								319,015	317,999	299,008	166,308	9,128
2021									374,828	366,258	305,139	7,766
2022										456,192	436,877	6,263
										Total	<u>\$3,575,139</u>	

Insurance professional lines												
Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance												
Accident year	For the years ended December 31,										2022	
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 15,377	\$ 61,522	\$ 108,641	\$ 151,750	\$ 185,538	\$ 212,579	\$ 229,734	\$ 241,651	\$ 255,952	\$ 257,104		
2014		20,125	56,706	103,662	158,890	188,401	204,705	214,481	236,458	242,244		
2015			14,049	51,053	110,009	138,047	169,213	198,709	211,058	222,361		
2016				14,319	65,614	130,415	170,747	208,400	232,648	273,693		
2017					11,370	51,064	107,837	165,575	196,308	266,468		
2018						18,191	74,216	141,868	202,837	262,939		
2019							24,826	75,955	131,776	203,957		
2020								8,631	43,796	97,171		
2021									9,697	38,372		
2022												10,715
										Total		<u>1,875,024</u>
										All outstanding liabilities before 2013, net of reinsurance		93,016
										Liabilities for claims and claim adjustment expenses, net of reinsurance		<u>\$ 1,793,131</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance professional lines									
Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)									
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
4.2%	12.4%	16.7%	14.5%	10.9%	10.1%	6.4%	5.1%	3.4%	0.4%

Insurance Credit and Political Risk

The credit and political risk line of business provides credit and political risk insurance products for banks, commodity traders, corporations and multilateral and export credit agencies. Cover is provided for a range of risks including sovereign and corporate credit default, political violence, currency inconvertibility and non-transfer, expropriation, aircraft non-repossession and contract frustration due to political events.

The credit insurance coverage is primarily for lenders seeking to mitigate the risk of non-payment from their borrowers. In order to claim compensation under a credit insurance contract, the insured (most often a bank) cannot assign, without the Company's prior agreement, the insured contract (most often a loan) to any third party and is normally obliged to hold a material portion of insured asset on their books, unhedged and uninsured. Claims for this business tend to be characterized by their severity risk, as opposed to their frequency risk.

Claim reporting and payment patterns are anticipated to be volatile and are generally medium-tailed. Under the notification provisions of credit insurance policies issued by the Company, it anticipates being advised of an insured event within a relatively short time period. Consequently, the Company generally estimates ultimate losses based on a contract-by-contract analysis which considers the contracts' terms, the facts and circumstances of underlying loss events and qualitative input from claims managers.

Insurance credit and political risk												
Incurred claims and allocated claim adjustment expenses, net of reinsurance											At December 31, 2022	
Accident year	For the years ended December 31,										Total of incurred-but-not-reported liabilities plus expected development on reported claims	Cumulative number of reported claims
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 26,439	\$ 25,684	\$ 9,759	\$ 9,880	\$ 14,942	\$ 14,067	\$ 12,377	\$ 12,739	\$ 12,614	\$ 12,151	\$ —	2
2014		38,825	70,712	67,109	68,323	69,589	71,274	70,748	69,112	69,677	—	6
2015			30,329	30,368	27,524	26,012	25,930	24,851	24,189	23,309	—	2
2016				44,175	45,485	42,995	43,566	27,352	26,371	25,291	—	1
2017					47,934	32,612	27,007	19,234	16,952	11,993	4,283	3
2018						42,588	35,296	34,240	26,231	22,577	9,191	2
2019							50,079	77,987	72,450	70,888	7,985	20
2020								59,758	68,347	59,519	25,535	39
2021									42,229	36,943	30,912	17
2022										45,231	40,828	13
										Total	\$ 377,579	

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance credit and political risk											
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>											
For the years ended December 31,											
<u>Accident year</u>	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>	
2013	\$ 745	\$ 2,235	\$ 3,726	\$ 5,216	\$ 11,769	\$ 13,828	\$ 13,828	\$ 13,828	\$ 12,151	\$ 12,151	
2014		1,924	39,951	61,108	57,857	57,857	64,050	70,223	70,223	69,677	
2015			—	23,309	23,309	23,309	23,309	23,309	23,309	23,309	
2016				—	25,291	25,291	25,291	25,291	25,291	25,291	
2017					388	3,916	9,008	11,427	10,640	10,100	
2018						5,215	13,128	15,117	11,314	19,396	
2019							15,684	46,055	53,331	56,531	
2020								9,618	89,146	56,769	
2021									2,769	(382)	
2022										2,797	
									Total	<u>275,639</u>	
											All outstanding liabilities before 2013, net of reinsurance
											607
											Liabilities for claims and claim adjustment expenses, net of reinsurance
											<u>\$ 102,547</u>

Insurance credit and political risk									
<u>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</u>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
8.7%	55.5%	6.2%	2.2%	13.9%	4.3%	2.2%	—%	(7.3%)	—%

Insurance Liability

The liability line of business primarily targets primary and low to mid-level excess and umbrella commercial liability risks in the U.S. wholesale markets in addition to primary and excess of loss employers, public and products liability business predominately in the U.K. Target industry sectors include construction, manufacturing, transportation and trucking and other services.

Typically, this line of business is anticipated to exhibit long-tail claim reporting and payment patterns.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance liability												
<u>Incurring claims and allocated claim adjustment expenses, net of reinsurance</u>											At December 31, 2022	
<u>Accident year</u>	For the years ended December 31,										<u>Total of incurred-but-not-reported liabilities plus expected development on reported claims</u>	<u>Cumulative number of reported claims</u>
	<u>2013 unaudited</u>	<u>2014 unaudited</u>	<u>2015 unaudited</u>	<u>2016 unaudited</u>	<u>2017 unaudited</u>	<u>2018 unaudited</u>	<u>2019 unaudited</u>	<u>2020 unaudited</u>	<u>2021 unaudited</u>	<u>2022</u>		
2013	\$ 93,230	\$ 95,304	\$ 95,170	\$ 88,237	\$ 93,677	\$ 95,978	\$ 91,938	\$ 89,897	\$ 94,196	\$ 97,047	\$ 12,187	3,737
2014		107,115	124,264	129,725	130,659	132,006	131,461	132,551	132,029	132,659	12,691	5,531
2015			128,435	127,236	137,385	164,915	182,612	187,927	186,853	188,577	22,972	6,574
2016				124,307	130,127	128,782	127,366	120,116	120,101	125,644	21,537	7,417
2017					166,717	165,415	184,847	200,470	204,612	215,101	21,746	8,629
2018						166,973	167,808	190,809	204,879	216,530	29,705	8,473
2019							190,645	191,683	221,266	236,959	43,102	7,936
2020								223,579	223,996	230,421	113,650	5,848
2021									231,189	244,972	150,924	5,965
2022										322,048	282,198	4,657
									Total	<u>\$ 2,009,958</u>		

Insurance liability												
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>												
<u>Accident year</u>	For the years ended December 31,											
	<u>2013 unaudited</u>	<u>2014 unaudited</u>	<u>2015 unaudited</u>	<u>2016 unaudited</u>	<u>2017 unaudited</u>	<u>2018 unaudited</u>	<u>2019 unaudited</u>	<u>2020 unaudited</u>	<u>2021 unaudited</u>	<u>2022</u>		
2013	\$ 2,356	\$ 23,276	\$ 33,315	\$ 42,046	\$ 60,000	\$ 66,959	\$ 71,978	\$ 73,309	\$ 78,018	\$ 82,483		
2014		1,409	18,623	49,818	71,582	84,362	93,562	103,033	106,197	113,142		
2015			5,437	22,303	39,522	92,535	120,061	140,732	150,562	158,924		
2016				6,308	23,237	36,336	56,367	66,237	79,464	95,688		
2017					5,395	29,335	58,801	115,213	142,927	168,012		
2018						9,321	34,803	72,091	118,945	158,358		
2019							7,791	39,746	83,533	138,832		
2020								8,138	25,129	75,820		
2021									13,388	51,815		
2022										13,199		
									Total	<u>1,056,273</u>		
											All outstanding liabilities before 2013, net of reinsurance	50,544
											Liabilities for claims and claim adjustment expenses, net of reinsurance	<u>\$ 1,004,229</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Insurance liability									
<i>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</i>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
3.5%	12.9%	15.6%	20.1%	13.6%	9.5%	7.6%	2.7%	5.1%	4.6%

Reinsurance Segment

The presentation of net incurred and paid claims development tables by accident year for the reinsurance segment is challenging due to the need to allocate loss information related to proportional treaties to the appropriate accident years. Information related to proportional treaty reinsurance contracts is generally submitted to the Company via quarterly bordereaux reporting by underwriting year, with a supplemental listing of large losses. Large losses can be allocated to the corresponding accident years accurately. The remaining losses can generally only be allocated to accident years based on estimated premiums earned and loss reporting patterns. To the extent management's assumptions and allocation procedures differ from the actual loss development patterns, the actual loss development may differ materially from the net incurred and paid claims development presented in the tables below.

The reporting of cumulative claims frequency for the lines of business within the reinsurance segment is deemed to be impracticable as the information necessary to provide cumulative claims frequency for these reserve classes is not available to the Company.

Reinsurance Accident and Health

The accident and health line of business includes personal accident, specialty health, accidental death, travel, life and disability reinsurance products which are offered on a proportional and catastrophic or per life excess of loss basis.

In general, reporting and payment patterns are relatively short-tailed although they can be volatile due to the incidence of catastrophe events.

Reinsurance accident and health											
<i>Incurring claims and allocated claim adjustment expenses, net of reinsurance</i>										<i>At December 31, 2022</i>	
<u>Accident Year</u>	<i>For the years ended December 31,</i>										<i>Total of incurred-but-not-reported liabilities plus expected development on reported claims</i>
	<u>2013 unaudited</u>	<u>2014 unaudited</u>	<u>2015 unaudited</u>	<u>2016 unaudited</u>	<u>2017 unaudited</u>	<u>2018 unaudited</u>	<u>2019 unaudited</u>	<u>2020 unaudited</u>	<u>2021 unaudited</u>	<u>2022</u>	
2013	\$ 108,977	\$ 113,631	\$ 113,009	\$ 111,623	\$ 111,155	\$ 111,162	\$ 111,162	\$ 111,198	\$ 111,277	\$ 111,294	\$ 757
2014		101,383	102,354	89,238	86,765	86,772	86,774	87,734	88,021	87,906	1,106
2015			93,792	100,434	93,964	93,722	93,007	93,341	92,350	92,313	(1,876)
2016				170,644	191,188	188,320	189,929	189,403	190,426	190,356	(613)
2017					183,817	189,430	183,286	182,097	183,120	183,077	1,528
2018						193,667	200,269	198,105	200,854	200,190	4,693
2019							217,320	211,896	207,347	204,951	5,896
2020								226,549	220,334	213,230	(7,052)
2021									231,754	226,659	26,816
2022										267,359	146,819
									Total	<u>\$1,777,335</u>	

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance accident and health											
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>											
For the years ended December 31,											
<u>Accident Year</u>	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>	
2013	\$ 52,853	\$ 103,977	\$ 108,306	\$ 110,927	\$ 111,011	\$ 111,018	\$ 111,018	\$ 111,090	\$ 110,328	\$ 110,537	
2014		36,558	79,933	85,870	86,266	86,466	86,553	87,239	86,319	86,702	
2015			23,404	77,264	88,667	91,872	91,981	92,441	93,864	93,677	
2016				50,036	149,883	180,978	187,142	189,128	188,726	189,679	
2017					79,209	157,032	171,864	178,605	179,117	179,772	
2018						72,863	165,053	191,605	191,161	194,276	
2019							67,728	169,257	195,575	196,306	
2020								81,657	171,632	210,006	
2021									68,381	179,025	
2022										101,308	
									Total	<u>1,541,288</u>	
											All outstanding liabilities before 2013, net of reinsurance
											47
											Liabilities for claims and claim adjustment expenses, net of reinsurance
											<u>\$ 236,094</u>

Reinsurance accident and health									
<u>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</u>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
36.0%	48.3%	11.5%	1.9%	0.6%	0.2%	0.7%	(0.4%)	(0.2%)	0.2%

Reinsurance Agriculture

The agriculture line of business provides protection for risks associated with the production of food and fiber on a global basis for primary insurance companies writing multi-peril crop insurance, crop hail, and named peril covers, as well as custom risk transfer mechanisms for agricultural dependent industries with exposures to crop yield and/or price deviations. This business is written on a proportional and aggregate stop loss reinsurance basis.

In general, reporting and payment patterns are relatively short-tailed although they can be volatile due to the incidence of extreme weather events and in some territories take longer to settle due to government involvement in the loss adjustment process.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance agriculture											At December 31, 2022
<u>Incurring claims and allocated claim adjustment expenses, net of reinsurance</u>											<u>Total of incurred-but-not-reported liabilities plus expected development on reported claims</u>
<u>Accident Year</u>	<u>For the years ended December 31,</u>										<u>development on reported claims</u>
	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>	
2013	\$ 107,068	\$ 117,467	\$ 121,107	\$ 120,795	\$ 120,807	\$ 120,799	\$ 120,919	\$ 121,805	\$ 120,853	\$ 121,752	\$ (330)
2014		183,242	164,334	162,814	162,382	162,308	162,321	162,239	162,061	162,756	437
2015			103,172	95,592	95,334	95,320	95,326	95,504	95,490	95,621	(33)
2016				123,798	117,507	110,630	109,218	109,457	108,647	108,599	(227)
2017					151,649	144,281	138,357	139,427	138,898	137,431	(238)
2018						140,936	147,271	140,806	140,538	139,907	1,412
2019							184,177	185,218	187,685	183,289	1,679
2020								62,593	62,738	63,778	3,775
2021									69,759	61,225	9,475
2022										100,872	77,550
									Total	\$1,175,230	

Reinsurance agriculture											
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>											
<u>For the years ended December 31,</u>											
<u>Accident Year</u>	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>	
2013	\$ 3,609	\$ 78,089	\$ 118,317	\$ 119,549	\$ 120,144	\$ 120,138	\$ 120,204	\$ 119,990	\$ 120,258	\$ 121,997	
2014		15,615	133,132	162,343	161,569	161,492	162,005	160,509	161,161	162,061	
2015			1,716	65,858	92,967	94,523	94,860	95,455	95,444	95,599	
2016				9,489	62,155	107,972	109,511	108,991	108,752	108,792	
2017					7,444	124,479	137,421	138,555	137,396	137,343	
2018						5,115	127,514	135,594	141,688	138,316	
2019							28,854	154,480	174,173	178,181	
2020								17,454	47,316	54,180	
2021									2,953	32,781	
2022										15,345	
									Total	1,044,595	
										All outstanding liabilities before 2013, net of reinsurance	734
										Liabilities for claims and claim adjustment expenses, net of reinsurance	\$ 131,369

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance agriculture									
Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)									
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
9.5%	65.1%	19.8%	1.6%	(0.5%)	0.1%	(0.2%)	0.1%	0.4%	1.4%

Reinsurance Marine and Aviation

The marine line of business includes specialty marine classes such as cargo, hull, pleasure craft, marine liability, inland marine and offshore energy. The principal perils covered by policies in this portfolio include physical loss, damage and/or liability arising from natural perils of the seas or land, man-made events including fire and explosion, stranding/sinking/salvage, pollution, shipowners and maritime employers liability. This business is written on a non-proportional and proportional basis.

The aviation line of business provides cover for airline, aerospace and general aviation exposures. This business is written on a proportional and non-proportional basis. The Company exited Aviation business effective January 1, 2023.

Losses arising from marine and aviation lines of business are generally reported quickly with the exception of marine and aviation liability claims which tend to exhibit longer reporting and payment patterns as claims involve passengers and third parties.

Reinsurance marine and aviation											
Incurred claims and allocated claim adjustment expenses, net of reinsurance											
For the years ended December 31,											
Accident Year	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022	At December 31, 2022
											Total of incurred- but-not-reported liabilities plus expected development on reported claims
2013	\$ 11,961	\$ 12,441	\$ 6,676	\$ 6,487	\$ 6,560	\$ 6,523	\$ 6,226	\$ 6,558	\$ 6,575	\$ 6,599	\$ (565)
2014		10,183	9,142	7,990	7,182	9,166	8,514	8,764	9,003	9,505	423
2015			10,363	9,217	10,806	14,979	12,620	12,251	12,016	11,968	418
2016				32,280	35,330	35,605	36,996	35,511	35,834	36,238	625
2017					55,072	42,760	41,360	46,608	43,230	40,887	844
2018						18,830	28,072	27,609	44,042	47,522	443
2019							69,056	81,480	79,146	80,976	5,760
2020								40,548	42,071	38,273	4,380
2021									43,886	40,968	15,886
2022										68,898	54,268
										Total	<u>\$ 381,834</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance marine and aviation											
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>											
For the years ended December 31,											
<u>Accident Year</u>	<u>2013</u> unaudited	<u>2014</u> unaudited	<u>2015</u> unaudited	<u>2016</u> unaudited	<u>2017</u> unaudited	<u>2018</u> unaudited	<u>2019</u> unaudited	<u>2020</u> unaudited	<u>2021</u> unaudited	<u>2022</u>	
2013	\$ 465	\$ 2,502	\$ 3,685	\$ 4,180	\$ 5,416	\$ 5,845	\$ 6,029	\$ 6,574	\$ 6,593	\$ 6,698	
2014		1,117	2,301	4,377	5,244	6,308	6,486	6,990	7,357	7,549	
2015			416	2,655	6,430	8,641	10,198	10,994	10,820	10,902	
2016				2,695	19,119	26,202	30,133	32,878	33,927	34,519	
2017					2,746	23,508	28,826	33,764	36,809	36,920	
2018						1,779	10,831	24,246	30,685	34,293	
2019							10,715	27,093	34,278	52,688	
2020								4,017	16,729	24,112	
2021									5,491	12,381	
2022										7,775	
									Total	<u>227,837</u>	
											All outstanding liabilities before 2013, net of reinsurance
											<u>2,076</u>
											Liabilities for claims and claim adjustment expenses, net of reinsurance
											<u>\$ 156,073</u>

Reinsurance marine and aviation									
<u>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</u>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
8.9%	27.5%	20.0%	13.5%	10.9%	3.7%	2.1%	4.3%	1.2%	1.6%

Reinsurance Professional Lines

The professional lines line of business provides protection for directors' and officers' liability, employment practices liability, medical malpractice, professional indemnity, environmental liability, cyber, and miscellaneous errors and omissions insurance risks. The underlying business is predominantly written on a claims-made basis. This business is written on a proportional and excess of loss basis.

Typically, this reserve class is anticipated to exhibit medium to long-tail claim reporting and payment patterns.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance professional lines											
<u>Incurring claims and allocated claim adjustment expenses, net of reinsurance</u>											At December 31, 2022
For the years ended December 31,											Total of incurred- but-not-reported liabilities plus expected development on reported claims
Accident year	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022	
2013	\$ 208,838	\$ 213,826	\$ 214,632	\$ 212,750	\$ 212,039	\$ 204,246	\$ 180,269	\$ 168,466	\$ 164,383	\$ 168,014	\$ 5,422
2014		218,770	218,664	218,600	218,251	232,493	228,865	227,327	225,276	233,317	5,973
2015			211,463	211,312	213,463	224,028	230,650	227,545	234,298	240,255	12,860
2016				194,725	195,775	199,369	226,932	254,459	254,339	266,249	28,900
2017					154,457	154,910	161,029	176,930	186,713	209,111	31,256
2018						145,212	147,533	154,366	164,966	172,749	37,223
2019							136,846	136,277	140,144	144,336	48,864
2020								139,748	140,003	134,318	82,908
2021									147,961	139,493	112,421
2022										168,473	154,252
									Total	<u>\$1,876,315</u>	

Reinsurance professional lines												
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>												
For the years ended December 31,												
Accident year	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 1,059	\$ 12,023	\$ 30,381	\$ 64,795	\$ 81,423	\$ 104,549	\$ 122,775	\$ 128,090	\$ 132,401	\$ 138,470		
2014		2,019	13,047	48,700	74,330	108,767	146,520	157,828	177,465	189,224		
2015			3,134	13,502	41,493	79,172	111,527	131,056	151,873	169,963		
2016				1,758	20,414	52,455	94,853	124,553	153,251	180,770		
2017					2,812	14,785	39,764	62,498	88,494	115,904		
2018						272	2,539	31,091	56,685	81,417		
2019							365	13,549	33,395	52,849		
2020								3,822	13,845	26,664		
2021									4,337	11,343		
2022										3,233		
									Total	<u>969,837</u>		
											All outstanding liabilities before 2013, net of reinsurance	92,109
											Liabilities for claims and claim adjustment expenses, net of reinsurance	<u>\$ 998,587</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance professional lines									
<i>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</i>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
1.3%	5.7%	12.7%	14.6%	12.7%	12.4%	8.7%	6.4%	3.8%	3.6%

Reinsurance Credit and Surety

The credit and surety line of business which provides reinsurance of trade credit insurance products and includes proportional and excess of loss structures. The underlying insurance indemnifies sellers of goods and services in the event of a payment default by the buyer of those goods and services. Surety reinsurance provides protection for losses arising from a broad array of surety bonds issued by insurers to satisfy regulatory demands or contract obligations in a variety of jurisdictions around the world. The Company also provides mortgage reinsurance to mortgage guaranty insurers and U.S. government sponsored entities for losses related to credit risk transfer into the private sector.

Initial and most recent underwriting year loss projections are generally based on the ELR Method, with consideration given to qualitative factors. Given that there is a quicker and more stable reporting pattern for trade credit and mortgage business, the Company generally commences the transition to experience-based methods sooner for these lines of business than for surety business.

Reinsurance credit and surety											At December 31, 2022
<i>Incurring claims and allocated claim adjustment expenses, net of reinsurance</i>											<i>Total of incurred-but-not-reported liabilities plus expected development on reported claims</i>
<u>Accident year</u>	For the years ended December 31,										<u>2022</u>
	<u>2013</u> unaudited	<u>2014</u> unaudited	<u>2015</u> unaudited	<u>2016</u> unaudited	<u>2017</u> unaudited	<u>2018</u> unaudited	<u>2019</u> unaudited	<u>2020</u> unaudited	<u>2021</u> unaudited	<u>2022</u>	
2013	\$ 162,254	\$ 149,561	\$ 140,520	\$ 136,726	\$ 132,814	\$ 121,824	\$ 122,035	\$ 124,850	\$ 123,641	\$ 124,760	\$ 1,647
2014		132,954	132,589	139,686	136,104	125,086	123,854	120,171	118,853	119,216	133
2015			157,589	161,881	156,701	152,946	134,568	135,496	136,667	131,093	1,530
2016				139,437	138,424	146,132	120,945	113,526	111,192	108,856	1,206
2017					136,280	129,727	123,877	115,202	112,679	112,383	2,461
2018						109,771	117,215	111,340	108,388	103,324	9,933
2019							73,090	66,316	66,175	63,943	9,256
2020								76,516	83,053	68,410	16,290
2021									51,721	43,485	21,500
2022										63,125	50,105
									Total	<u>\$ 938,595</u>	

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance credit and surety												
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>												
For the years ended December 31,												
<u>Accident year</u>	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>		
2013	\$ 32,161	\$ 75,085	\$ 89,348	\$ 95,770	\$ 103,368	\$ 105,102	\$ 110,064	\$ 112,241	\$ 110,508	\$ 111,765		
2014		35,281	59,703	83,972	92,889	100,457	104,858	105,238	105,054	106,252		
2015			32,782	79,855	97,094	113,683	115,605	119,204	120,060	118,811		
2016				41,790	71,774	90,226	99,722	100,768	99,276	99,003		
2017					37,115	72,267	88,330	99,844	97,952	100,868		
2018						38,682	66,694	70,623	82,182	83,907		
2019							19,224	30,187	43,443	45,510		
2020								25,293	33,823	39,253		
2021									4,466	9,045		
2022										6,865		
									Total	721,279		
											All outstanding liabilities before 2013, net of reinsurance	14,199
											Liabilities for claims and claim adjustment expenses, net of reinsurance	\$ 231,515

Reinsurance credit and surety									
<u>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</u>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
27.8%	24.1%	13.6%	8.4%	2.5%	1.8%	1.2%	0.2%	(0.2%)	1.0%

Reinsurance Motor

The motor line of business provides protection to insurers for motor liability and motor property damage losses arising from any one occurrence. A loss occurrence can involve one or many claimants where the ceding insurer aggregates the claims from the occurrence. The Company offers traditional proportional and non-proportional reinsurance as well as structured solutions predominantly relating to European exposures.

The business written on a proportional basis has expanded significantly since 2010 and now represents the majority of the premium in this line of business. Most of the premium relates to a relatively small number of large United Kingdom ("U.K.") quota share reinsurance treaty contracts. The motor proportional business generally has a significantly shorter reported and payment pattern, relative to the motor non-proportional business.

The motor non-proportional business consists of standard excess of loss contracts written for cedants in several European countries with most of the premium related to two major markets, U.K. and France. Since 2009/2010, an increasing number of large bodily injury settlements in the U.K. market were settled using indexed annuities (Periodical Payment Orders "PPOs"). This led to a materially longer development tail on the older accident years for the U.K. non-proportional motor book. This also resulted in the inclusion of capitalization clauses on a number of U.K. motor treaties which allow reinsurers to settle claims arising under PPOs with a lump sum payment, to help mitigate the lengthening of the development tail on more recent accident years.

In 2017, the U.K. Ministry of Justice announced a decrease in the discount rate to be used to calculate lump sum awards in U.K. bodily injury cases, known as the Ogden Rate. Effective March 20, 2017, the Ogden rate changed from plus 2.5% to

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

minus 0.75%. This resulted in a trend toward a lower number of claims settlements using PPOs and an increase in projected ultimate losses, particularly related to recent accident years.

Effective August 5, 2019, the Ogden rate changed from minus 0.75% to minus 0.25%. This resulted in a decrease in projected ultimate losses, particularly related to recent accident years.

Reinsurance motor											At December 31, 2022	
<u>Incurring claims and allocated claim adjustment expenses, net of reinsurance</u>											<u>Total of incurred-but-not-reported liabilities plus expected development on reported claims</u>	
Accident year	For the years ended December 31,										2022	
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 154,629	\$ 148,570	\$ 137,357	\$ 128,421	\$ 125,052	\$ 122,196	\$ 113,999	\$ 111,011	\$ 107,275	\$ 107,772	\$ 107,772	\$ 5,350
2014		174,534	171,207	166,277	163,297	159,020	155,735	152,566	152,080	152,730		2,906
2015			214,064	204,962	208,365	210,117	199,861	198,653	196,003	196,266		6,881
2016				236,330	246,951	248,315	238,949	230,691	228,144	231,759		3,531
2017					347,985	350,773	340,571	341,108	342,097	337,372		12,195
2018						343,073	335,555	345,746	342,114	330,259		12,092
2019							328,062	325,918	325,792	317,512		23,908
2020								205,885	207,767	205,512		38,657
2021									173,077	173,409		36,756
2022										154,531		69,678
									Total	<u>\$2,207,122</u>		

Reinsurance motor											
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>											
For the years ended December 31,											
Accident year	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022	
2013	\$ 32,749	\$ 49,088	\$ 61,273	\$ 70,288	\$ 75,368	\$ 80,462	\$ 83,161	\$ 74,002	\$ 87,158	\$ 88,695	
2014		41,942	68,998	86,680	93,883	103,115	111,744	106,510	126,822	129,313	
2015			56,617	88,152	106,450	122,679	137,554	137,597	159,792	164,738	
2016				59,225	98,649	120,556	137,362	149,042	172,139	179,208	
2017					70,213	126,902	155,191	188,658	209,638	231,594	
2018						82,020	134,503	196,187	204,301	227,538	
2019							89,709	180,671	195,770	216,677	
2020								43,190	92,231	110,939	
2021									41,457	73,915	
2022										34,696	
									Total	<u>1,457,313</u>	
										All outstanding liabilities before 2013, net of reinsurance	252,523
										Liabilities for claims and claim adjustment expenses, net of reinsurance	<u>\$ 1,002,332</u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance motor									
<i>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</i>									
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
25.4%	18.9%	10.3%	6.8%	6.1%	5.4%	3.4%	2.4%	6.9%	1.4%

Reinsurance Liability

The liability line of business provides protection to insurers of admitted casualty business, excess and surplus lines casualty business and specialty casualty programs. The primary focus of the underlying business is general liability, workers' compensation, auto liability and excess casualty.

Typically, this line of business is anticipated to exhibit long-tail claim reporting and payment patterns.

Reinsurance liability											At December 31, 2022
<i>Incurring claims and allocated claim adjustment expenses, net of reinsurance</i>											<i>Total of incurred-but-not-reported liabilities plus expected development on reported claims</i>
<u>Accident year</u>	<u>For the years ended December 31,</u>										
	<u>2013</u> unaudited	<u>2014</u> unaudited	<u>2015</u> unaudited	<u>2016</u> unaudited	<u>2017</u> unaudited	<u>2018</u> unaudited	<u>2019</u> unaudited	<u>2020</u> unaudited	<u>2021</u> unaudited	<u>2022</u>	
2013	\$ 171,362	\$ 175,116	\$ 181,007	\$ 183,051	\$ 182,782	\$ 176,171	\$ 156,816	\$ 155,720	\$ 154,142	\$ 157,106	\$ 9,769
2014		198,852	201,764	203,470	199,379	198,098	195,959	186,489	182,375	188,328	16,201
2015			213,612	213,954	214,899	214,736	212,574	212,908	202,698	205,594	19,016
2016				239,071	244,275	249,096	252,359	262,011	265,953	273,312	33,727
2017					273,964	268,712	278,111	286,761	296,174	305,418	46,899
2018						262,831	267,501	272,753	285,643	305,168	61,173
2019							262,191	271,050	273,061	271,247	88,379
2020								282,871	283,457	277,697	146,037
2021									303,482	310,759	196,806
2022										346,385	298,804
									Total	<u>\$2,641,014</u>	

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance liability											
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>											
For the years ended December 31,											
<u>Accident year</u>	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>	
2013	\$ 5,966	\$ 22,218	\$ 52,304	\$ 69,024	\$ 88,217	\$ 102,527	\$ 113,053	\$ 123,563	\$ 127,966	\$ 133,020	
2014		7,072	28,641	48,362	69,985	89,217	109,681	129,370	136,624	147,798	
2015			7,268	27,442	54,466	80,784	108,707	130,587	141,300	151,688	
2016				11,858	37,601	69,254	111,403	142,420	166,054	188,883	
2017					12,432	42,092	78,435	120,553	158,338	192,889	
2018						19,354	49,875	85,126	127,737	166,117	
2019							19,305	45,266	79,739	120,278	
2020								16,939	49,073	82,357	
2021									10,942	58,524	
2022										18,061	
									Total	1,259,615	
											All outstanding liabilities before 2013, net of reinsurance
											123,029
											Liabilities for claims and claim adjustment expenses, net of reinsurance
											\$ 1,504,428

Reinsurance liability										
<u>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</u>										
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>	
4.8%	10.8%	12.8%	13.3%	12.1%	10.1%	7.7%	5.2%	4.4%	3.2%	

Reinsurance Run-off lines

Run-off lines include catastrophe, property, and engineering lines of business.

The catastrophe line of business provides protection for most catastrophic losses that are covered in the underlying insurance policies written by the Company's cedants. The underlying policies principally cover property-related exposures but other exposures including workers compensation and personal accident are also covered. The principal perils covered by policies in this portfolio include hurricane and windstorm, earthquake, flood, tornado, hail and fire. In some instances, terrorism may be a covered peril or the only peril. This business is written on a proportional and an excess of loss basis. The Company exited this line of business in June 2022.

The property line of business provides protection for property damage and related losses resulting from natural and man-made perils that are covered in underlying personal and commercial lines insurance policies written by the Company's cedants. The predominant exposure is to property damage, but other risks, including business interruption and other non-property losses, may also be covered when arising from a covered peril. The most significant perils covered by policies in this portfolio include windstorm, tornado and earthquake, but other perils such as freezes, riots, floods, industrial explosions, fires, hail and a number of other loss events are also included. This business is written on a proportional and excess of loss basis. The Company exited this line of business in June 2022.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

The engineering line of business provides protection for all types of construction risks and risks associated with erection, testing and commissioning of machinery and plants during the construction stage. This line of business also includes coverage for losses arising from operational failures of machinery, plant and equipment, and electronic equipment as well as business interruption. The Company exited this line of business in 2020.

In general, reporting and payment patterns are relatively short-tailed although they can be volatile due to the incidence of catastrophe events. Although short-tail in nature, losses from engineering exposures tend to develop slower than the other reinsurance run-off lines of business.

Reinsurance run-off											At December 31, 2022	
Incurred claims and allocated claim adjustment expenses, net of reinsurance											Total of incurred- but-not-reported liabilities plus expected development on reported claims	
Accident year	For the years ended December 31,											
	2013 unaudited	2014 unaudited	2015 unaudited	2016 unaudited	2017 unaudited	2018 unaudited	2019 unaudited	2020 unaudited	2021 unaudited	2022		
2013	\$ 339,293	\$ 308,714	\$ 282,546	\$ 265,575	\$ 260,012	\$ 259,488	\$ 256,433	\$ 254,589	\$ 252,736	\$ 251,472	\$	927
2014		241,052	245,246	235,489	226,620	223,003	222,835	218,807	218,620	217,746		1,354
2015			265,915	254,255	254,344	245,175	243,963	248,890	246,716	244,839		4,350
2016				284,047	284,044	280,767	275,463	278,910	279,338	279,384		5,861
2017					703,634	703,287	742,280	743,340	741,329	732,026		22,110
2018						523,856	617,378	632,623	618,695	604,626		14,356
2019							454,804	439,421	419,002	401,170		30,117
2020								517,487	548,722	542,837		60,793
2021									425,525	434,809		54,826
2022										263,372		139,192
									Total	<u>\$3,972,281</u>		

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reinsurance run-off												
<u>Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance</u>												
For the years ended December 31,												
<u>Accident year</u>	<u>2013</u> <u>unaudited</u>	<u>2014</u> <u>unaudited</u>	<u>2015</u> <u>unaudited</u>	<u>2016</u> <u>unaudited</u>	<u>2017</u> <u>unaudited</u>	<u>2018</u> <u>unaudited</u>	<u>2019</u> <u>unaudited</u>	<u>2020</u> <u>unaudited</u>	<u>2021</u> <u>unaudited</u>	<u>2022</u>		
2013	\$ 50,430	\$ 137,729	\$ 207,125	\$ 232,338	\$ 239,868	\$ 240,785	\$ 241,051	\$ 240,341	\$ 244,594	\$ 245,659		
2014		49,123	135,883	179,797	196,310	201,136	205,235	202,701	209,411	210,684		
2015			46,120	118,635	177,080	201,981	212,210	216,642	230,483	232,113		
2016				64,831	141,113	199,912	230,829	245,034	251,866	257,213		
2017					163,361	419,474	532,087	590,316	614,420	649,936		
2018						116,922	335,059	430,939	483,699	530,773		
2019							54,866	220,795	281,860	318,273		
2020								105,210	240,691	323,592		
2021									87,885	233,487		
2022										50,148		
									Total	<u>3,051,878</u>		
											All outstanding liabilities before 2013, net of reinsurance	38,217
											Liabilities for claims and claim adjustment expenses, net of reinsurance	<u>\$ 958,620</u>

Reinsurance run-off										
<u>Average annual percentage payout of incurred claims by age, net of reinsurance (unaudited)</u>										
<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>	
19.9%	33.6%	19.3%	9.2%	4.3%	2.3%	1.6%	1.2%	1.2%	0.4%	

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

8. RESERVE FOR LOSSES AND LOSS EXPENSES (CONTINUED)

Reconciliation of Loss Development Tables to Consolidated Balance Sheet

The following table reconciles the reserve for losses and loss expenses at December 31, 2022, included in the loss development tables to the reserve for losses and loss expenses reported in the consolidated balance sheet:

Reconciliation of the disclosure of incurred and paid claims development to the liability for unpaid claims and claim adjustment expenses			
	At December 31, 2022		
	Net outstanding liabilities	Reinsurance recoverable on unpaid claims	Gross outstanding liabilities
Insurance segment			
Property	\$ 624,924	\$ 398,826	\$ 1,023,750
Accident and health	76,862	6,518	83,380
Marine and aviation	605,168	278,976	884,144
Cyber	296,401	393,436	689,837
Professional lines	1,793,131	1,474,539	3,267,670
Credit and political risk	102,547	34,391	136,938
Liability	1,004,229	1,546,520	2,550,749
Total insurance segment	4,503,262	4,133,206	8,636,468
Reinsurance segment			
Accident and health	236,094	38,647	274,741
Agriculture	131,369	10,018	141,387
Marine and aviation	156,073	57,692	213,765
Professional lines	998,587	303,849	1,302,436
Credit and surety	231,515	79,309	310,824
Motor	1,002,332	258,483	1,260,815
Liability	1,504,428	527,513	2,031,941
Run-off lines	958,620	422,455	1,381,075
Total reinsurance segment	5,219,018	1,697,966	6,916,984
Total	\$ 9,722,280	\$ 5,831,172	15,553,452
Unallocated claims adjustment expenses			168,308
Foreign exchange and other ⁽¹⁾			21,972
Ceded reserves related to retroactive transactions			(574,869)
Total liability for unpaid claims and claims adjustment expense			\$ 15,168,863

(1) Non-U.S. dollar denominated loss data is converted to U.S. dollar at the rates of exchange in effect at the balance sheet date for material underlying currencies. Fluctuations in currency exchange rates may cause material shifts in loss development. Reserves for losses and loss expenses disclosed in the consolidated balance sheets are also remeasured using rates of exchange in effect at the balance sheet date.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

9. REINSURANCE

In the normal course of business, the Company purchases treaty and facultative reinsurance protection to limit ultimate losses from catastrophic events and reduce loss aggregation risk.

Facultative reinsurance provides cover for all or a portion of the losses incurred for a single policy and the Company separately negotiates each facultative contract.

Treaty reinsurance provides cover for a specified type or category of risks. The Company's treaty reinsurance agreements provide this cover on either an excess of loss or a proportional basis. Excess of loss covers provide a contractually set amount of coverage after a specified loss amount has been reached. These treaties can provide cover for a number of lines of business within one contract. Under proportional reinsurance, the Company cedes an agreed percentage of the premiums and the losses and loss expenses on the policies it underwrites. These treaties provide the Company with a specified percentage of coverage from the first dollar of loss.

All of these reinsurance contracts provide the Company with the right to recover a specified amount of losses and loss expenses from reinsurers. To the extent that reinsurers do not meet their obligations under these agreements due to solvency issues, contractual disputes over contract language or coverage and/or other reasons, the Company remains liable. The Company predominantly cedes its business to reinsurers rated A- or better by A.M. Best.

The following table presents gross and net premiums written and earned:

Year ended December 31,	2022		2021		2020	
	Premiums written	Premiums earned	Premiums written	Premiums earned	Premiums written	Premiums earned
Gross	\$ 8,214,595	\$ 7,936,382	\$ 7,685,984	\$ 7,281,709	\$ 6,826,938	\$ 6,768,733
Ceded	(2,951,539)	(2,776,056)	(2,759,360)	(2,571,859)	(2,490,529)	(2,397,424)
Net	\$ 5,263,056	\$ 5,160,326	\$ 4,926,624	\$ 4,709,850	\$ 4,336,409	\$ 4,371,309

For the year ended December 31, 2022, the Company recognized ceded losses and loss expenses of \$1,754 million (2021: \$1,782 million; 2020: \$1,914 million).

At December 31, 2022, the Company's allowance for expected credit losses was \$31 million (2021: \$30 million; 2020: \$24 million).

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

10. DEBT AND FINANCING ARRANGEMENTS

a) Debt

The following table summarizes the Company's debt:

Year ended December 31,	2022	2021
5.150% Senior Notes	\$ 246,708	\$ 246,632
4.000% Senior Notes	348,020	347,665
3.900% Senior Notes	296,615	296,172
Junior Subordinated Notes	420,971	420,506
Total Debt	\$ 1,312,314	\$ 1,310,975

The tables below provide the key terms of the Company's debt:

Description	Issuance Date	Aggregate Principal	Issue Price	Net Proceeds	Maturity Date
5.150% Senior Notes	March 13, 2014	\$ 250,000	99.474 %	\$ 246,000	April 1, 2045
4.000% Senior Notes	December 6, 2017	\$ 350,000	99.780 %	\$ 347,000	December 6, 2027
3.900% Senior Notes	June 19, 2019	\$ 300,000	99.360 %	\$ 296,000	July 15, 2029
Junior Subordinated Notes	December 10, 2019	\$ 425,000	99.000 %	\$ 420,750	January 15, 2040

Description	Interest Rate	Interest Payments Due
5.150% Senior Notes	5.150 %	Semi-annually in arrears on April 1 and October 1 of each year
4.000% Senior Notes	4.000 %	Semi-annually in arrears on June 6 and December 6 of each year
3.900% Senior Notes	3.900 %	Semi-annually in arrears on January 15 and July 15 of each year
Junior Subordinated Notes ⁽¹⁾	4.900 %	Semi-annually on January 15 and July 15 of each year

(1) The Junior Subordinated Notes accrue interest from the date of issuance to, but excluding, January 15, 2030 (the "Par Call Date") at the fixed rate of 4.900% and from, and including, the Par Call Date, at a rate equal to the Five-Year Treasury Rate as of the Reset Interest Determination Date, plus 3.186%. Interest of the Junior Notes is payable semi-annually on January 15 and July 15 of each year, beginning on July 15, 2020.

5.150% Senior Notes

The 5.150% Senior Notes are ranked as unsecured senior obligations of AXIS Specialty Finance PLC, a 100% owned finance subsidiary. AXIS Capital has fully and unconditionally guaranteed all obligations of AXIS Specialty Finance PLC under the 5.150% Senior Notes. AXIS Capital's obligations under this guarantee are unsecured senior obligations and rank equally with all other senior obligations of AXIS Capital.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

10. DEBT AND FINANCING ARRANGEMENTS (CONTINUED)

4.000% Senior Notes

The 4.000% Senior Notes are ranked as unsecured senior obligations of AXIS Specialty Finance PLC, a 100% owned finance subsidiary. AXIS Capital has fully and unconditionally guaranteed all obligations of AXIS Specialty Finance PLC under the 4.000% Senior Notes. AXIS Capital's obligations under this guarantee are unsecured senior obligations and rank equally with all other senior obligations of AXIS Capital.

3.900% Senior Notes

The 3.900% Senior Notes are ranked as unsecured senior obligations of AXIS Specialty Finance LLC, a 100% owned finance subsidiary. AXIS Capital has fully and unconditionally guaranteed all obligations of AXIS Specialty Finance LLC under the 3.900% Senior Notes. AXIS Capital's obligations under this guarantee are unsecured senior obligations and rank equally with all other senior obligations of AXIS Capital.

The Company has the option to redeem the Senior Notes at any time and from time to time, in whole or in part, at a "make-whole" redemption price, which is equal to the greater of the aggregate principal amount or the sum of the present values of the remaining scheduled payments of principal and interest. The related indentures contain various covenants, including limitations on liens on the stock of restricted subsidiaries, restrictions as to the disposition of the stock of restricted subsidiaries and limitations on mergers and consolidations. The Company was in compliance with all the covenants contained in the indentures at December 31, 2022.

Interest expense recognized in relation to the Senior Notes includes interest payable, amortization of the offering discounts and amortization of debt offering expenses. The offering discounts and debt offering expenses are amortized over the period of time during which the Senior Notes are outstanding. For the year ended December 31, 2022, the Company incurred interest expense of \$40 million (2021: \$40 million, 2020: \$52 million).

Junior Subordinated Notes

The 4.900% Fixed-Rate Reset Junior Notes are ranked as unsecured junior subordinated obligations of AXIS Specialty Finance LLC, a 100% owned finance subsidiary. AXIS Capital has fully and unconditionally guaranteed all obligations of AXIS Specialty Finance LLC under the Junior Notes. AXIS Capital's obligation under this guarantee is an unsecured junior subordinated obligation and ranks equally with all future unsecured junior subordinated obligations of AXIS Capital, and junior in right of payment to all outstanding and future senior obligations of AXIS Capital.

Interest expense recognized in relation to the Junior Notes includes interest payable and amortization of debt offering expenses. The debt offering expenses are amortized over the period of time during which the Junior Notes are outstanding. For the year ended December 31, 2022, the Company incurred interest expense of \$21 million (2021: \$21 million).

Scheduled Debt Maturity

The following table provides the scheduled maturity of the Company's debt obligations at December 31, 2022:

Year ended December 31,	
2023	\$ —
2024	—
2025	—
2026	—
2027	350,000
After 2027	975,000
Unamortized discount and debt issuance expenses	(12,686)
Total senior notes and notes payable	\$ 1,312,314

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

10. DEBT AND FINANCING ARRANGEMENTS (CONTINUED)

b) Letter of Credit Facility

On November 20, 2013, certain of AXIS Capital's operating subsidiaries (the "Participating Subsidiaries") entered into an amendment to extend the term of the Company's secured \$750 million letter of credit facility with Citibank Europe plc ("Citibank") (the "\$750 million Facility") pursuant to a Master Reimbursement Agreement and other ancillary documents (together, the "LOC Facility Documents"). Under the terms of the \$750 million Facility, letters of credit to a maximum aggregate amount of \$750 million are available for issuance on behalf of the Participating Subsidiaries. These letters of credit are principally used to support the reinsurance obligations of the Participating Subsidiaries. The \$750 million Facility is subject to certain covenants, including the requirement to maintain sufficient collateral, as defined in the LOC Facility Documents to cover all of the obligations under the \$750 million Facility. Such obligations include contingent reimbursement obligations for outstanding letters of credit and fees payable to Citibank. In the event of default, Citibank may exercise certain remedies, including the exercise of control over pledged collateral and the termination of the availability of the \$750 million Facility to any or all of the Participating Subsidiaries.

On March 31, 2015, the Participating Subsidiaries entered into an amendment to reduce the maximum aggregate utilization capacity of the \$750 million Facility to \$500 million (the "\$500 million Facility"). All other material terms and conditions remained unchanged.

On March 27, 2017, the Participating Subsidiaries amended their existing \$500 million Facility to include an additional \$250 million of secured letter of credit capacity (the "\$250 million Facility") pursuant to a Committed Facility Letter and an amendment to the Master Reimbursement Agreement. Under the terms of the amended \$750 million Facility, letters of credit to a maximum aggregate amount of \$250 million are available for issuance on behalf of the Participating Subsidiaries once the \$500 million Facility has been fully utilized.

On December 24, 2019, the expiration date of the \$500 million Facility was extended to December 31, 2023.

On March 28, 2020, the expiration date of the \$250 million Facility was extended to March 31, 2021.

On March 31, 2021, the Participating Subsidiaries amended their existing secured \$750 million Facility to extend the expiration date of the \$250 million Facility to March 31, 2022, with each letter of credit provided pursuant to such credit facility having a tenor not to extend beyond March 31, 2023, to reduce the utilization capacity available under the \$250 million Facility to \$150 million, reducing the maximum aggregate utilization capacity of the credit facility from \$750 million to \$650 million, and to make administrative changes to the remaining \$500 million Facility.

On March 31, 2022, the Participating Subsidiaries amended their existing \$650 million secured letter of credit facility to extend the expiration date of the \$150 million secured letter of credit facility to March 31, 2023, with each letter of credit provided pursuant to such credit facility having a tenor not to extend beyond March 31, 2024. The terms and conditions of the \$500 million secured letter of credit facility remain unchanged.

At December 31, 2022, letters of credit outstanding under the LOC Facility were \$362 million (2021: \$356 million). At December 31, 2022, the Participating Subsidiaries were in compliance with all LOC Facility covenants.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

11. FEDERAL HOME LOAN BANK ADVANCES

The Company's subsidiaries, AXIS Insurance Company and AXIS Surplus Insurance Company are members of the Federal Home Loan Bank of Chicago ("FHLB").

Members may borrow from the FHLB at competitive rates subject to certain conditions. At December 31, 2022, the companies had admitted assets of approximately \$3 billion which provides borrowing capacity of up to approximately \$750 million. Conditions of membership include maintaining sufficient collateral deposits for funding, a requirement to maintain member stock at 0.4% of mortgage-related assets at December 31st of the prior year, and a requirement to purchase additional member stock of 2.0% or 4.5% of any amount borrowed.

At December 31, 2022, the Company had \$81 million of borrowings under the FHLB program, with maturities in 2023 and interest payable at interest rates between 2.3% and 4.7%. The Company incurred interest expense of \$1 million for the year ended December 31, 2022. The borrowings under the FHLB program are secured by cash and investments with a fair value of \$91 million.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

12. COMMITMENTS AND CONTINGENCIES

a) Concentrations of Credit Risk

Credit Risk Aggregation

The Company monitors and manages the aggregation of credit risk on a group-wide basis allowing it to consider exposure management strategies for individual companies, countries, regions, sectors and any other relevant inter-dependencies. The Company's credit exposures are aggregated based on the origin of risk. Credit risk aggregation is also managed through minimizing overlaps in underwriting, financing and investing activities. As part of its credit aggregation framework, the Company also assigns aggregate credit limits by country and by single counterparty (or parent of affiliated counterparties). These limits are based on and adjusted for a variety of factors including the prevailing economic environment and the nature of the underlying credit exposures.

The Company's credit aggregation measurement and reporting process is facilitated by its credit risk exposure database, which contains relevant information on counterparty details and credit risk exposures. The database is accessible by management throughout the Company, therefore providing transparency to allow for the implementation of active exposure management strategies. The Company also licenses third-party tools to provide credit risk assessments. The Company monitors all its credit aggregations and, where appropriate, adjusts its internal risk limits and/or takes specific actions to reduce our risk exposures.

The assets that potentially subject the Company to concentrations of credit risk consist principally of cash and investments, reinsurance recoverable on unpaid and paid claims, and insurance and reinsurance premiums balances receivable, as described below:

(i) Cash and Investments

In order to mitigate concentration and operational risks related to cash and cash equivalents, the Company limits the maximum amount of cash that can be deposited with a single counterparty and limits acceptable counterparties based on current rating, outlook and other relevant factors.

The Company's fixed maturities portfolio, which represents approximately \$12.0 billion or 44% of its total assets, is exposed to potential losses arising from the diminished creditworthiness of issuers of bonds. The Company's investment portfolio is managed by external investment managers in accordance with its investment guidelines. The Company limits credit risk through diversification and issuer exposure limits graded by ratings and, with respect to custodians, through contractual and other legal remedies. Excluding Government and agency securities, the Company limits its concentration of credit risk to any single corporate issuer to less than 2% of its investment grade fixed maturities portfolio for securities rated A- or above and less than 1% of its investment grade fixed maturities portfolio for securities rated below A-.

At December 31, 2022, the Company was in compliance with these limits.

(ii) Reinsurance Recoverable on Unpaid and Paid Losses and Loss Expenses

The Company is exposed to the credit risk associated with reinsurance recoverable on unpaid and paid losses and loss expenses to the extent that any of its reinsurers fail to meet their obligations under reinsurance contracts. To help mitigate this risk, the Company's purchase of reinsurance is subject to financial security requirements specified by its Reinsurance Security Committee. This Committee maintains a list of approved reinsurers, performs credit risk assessments for potential new reinsurers, regularly monitors approved reinsurers with consideration for events which may have a material impact on their creditworthiness, recommends counterparty tolerance levels for different types of ceded business and monitors concentrations of credit risk. This assessment considers a wide range of individual attributes, including a review of the counterparty's financial strength, industry position and other qualitative factors. Generally, the Committee requires that reinsurers who do not meet specified requirements provide collateral.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

12. COMMITMENTS AND CONTINGENCIES (CONTINUED)

At December 31, 2022, the three largest balances by reinsurer accounted for 13%, 9% and 6% (2021: 13%, 10% and 5%) of reinsurance recoverable on unpaid and paid losses and loss expenses.

At December 31, 2022, 81.8% (December 31, 2021: 85.7%) of the Company's reinsurance recoverable on unpaid and paid losses and loss expenses were collectible from reinsurers rated the equivalent of A- or better by A.M. Best.

(iii) Insurance and Reinsurance Premium Balances Receivable

The diversity of the Company's client base limits credit risk associated with its insurance and reinsurance premium balances receivable. In addition, for insurance contracts the Company has contractual rights to cancel coverage for non-payment of premiums and for reinsurance contracts the Company has contractual rights to offset premium balances receivable against corresponding payments for losses and loss expenses.

Brokers and other intermediaries collect premiums from customers on behalf of the Company. The Company has procedures in place to manage and monitor credit risk from intermediaries with a focus on day-to-day monitoring of the largest positions.

These contractual rights contribute to the mitigation of credit risk, together with the monitoring of aged premium balances receivable. In light of these mitigating factors and considering that a significant portion of premium balances receivable are not currently due based on the terms of the underlying contracts, the Company does not utilize specific credit quality indicators to monitor its premium balances receivable.

At December 31, 2022, the Company recorded an allowance for credit losses expected to be recognized over the life of the premium balances receivable of \$10 million (2021: \$8 million).

For the year ended December 31, 2022, bad debt expense was \$nil (2021: \$nil; 2020: \$nil).

b) Brokers

The Company produces its business through brokers and direct relationships with insurance companies.

For the year ended December 31, 2022, three brokers accounted for 43% of gross premiums written. Marsh & McLennan Companies Inc. accounted for 17%, Aon plc accounted for 17%, and Arthur J. Gallagher & Co. accounted for 9%.

For the years ended December 31, 2021 and 2020, three brokers accounted for 45% and 47% of gross premiums written, respectively. For the year ended December 31, 2021, Marsh & McLennan Companies Inc. accounted for 18% (2020:19%), Aon plc accounted for 17% (2020:17%), and Willis Tower Watson PLC accounted for 10% (2020:11%).

No other broker and no single insured or reinsured accounted for more than 10% of gross premiums written in any of the last three years.

c) Reinsurance Purchase Commitment

In the normal course of business, the Company purchases reinsurance and retrocessional (collectively referred to as "reinsurance") protection for its insurance and reinsurance business. Minimum reinsurance premiums are contractually due in advance on a quarterly basis. At December 31, 2022, the Company had outstanding reinsurance purchase commitments of \$11 million (2021: \$10 million), all of which is due before June 30, 2024. Actual payments under the reinsurance contracts will depend on the underlying subject premium and may exceed the minimum reinsurance premiums.

d) Legal Proceedings

From time to time, the Company is subject to routine legal proceedings, including arbitrations, arising in the ordinary course of business. These legal proceedings generally relate to claims asserted by or against the Company in the ordinary course of its insurance or reinsurance operations. Estimated amounts payable related to these proceedings are included in reserve for losses and loss expenses in the Company's financial statements.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

12. COMMITMENTS AND CONTINGENCIES (CONTINUED)

The Company is not party to any material legal proceedings arising outside the ordinary course of business.

e) Investments

At December 31, 2022 the Company has \$508 million (2021: \$649 million) of unfunded investment commitments related to its other investment portfolio, which are callable by investment managers (refer to Note 5(e) '*Investments*'). At December 31, 2022 the Company has \$25 million (2021: \$33 million) of unfunded investment commitments to purchase commercial mortgage loans and \$20 million (2021: \$19 million) of unfunded investment commitments to purchase corporate debt.

f) Funds at Lloyd's

The Company operates in the Lloyd's market through its corporate members, AXIS Corporate Capital UK Limited and AXIS Corporate Capital UK II Limited, which provide 70% and 30%, respectively of Syndicate 1686's capital support. Lloyd's sets capital requirements for corporate members annually through the application of a capital model that is based on regulatory rules pursuant to Solvency II.

The capital provided to support underwriting or FAL may be satisfied by cash, certain investments and letters of credit provided by approved banks.

At December 31, 2022, investments and cash of \$749 million (2021: \$937 million) were restricted to satisfy the Company's FAL requirements (refer to Note 5 '*Investments*' and Note 22 '*Statutory Financial Information*').

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

13. LEASES

In the ordinary course of business, the Company renews and enters into new leases for office property and equipment, which expire at various dates.

At the lease inception date, the Company assesses whether a contract is or contains a lease. At the commencement date, the Company determines the classification of each separate lease component as either a finance lease or an operating lease. The Company's leases are all currently classified as operating leases. For operating leases that have a lease term of more than 12 months, the Company recognizes a lease liability and a right-of-use asset in the Company's consolidated balance sheets at the present value of the lease payments at the lease commencement date.

At the commencement date, the Company determines lease terms by assuming the exercise of those renewal options that are deemed to be reasonably certain. The exercise of lease renewal options is at the sole discretion of the Company.

As the lease contracts generally do not provide an implicit discount rate, the Company uses its incremental borrowing rate based on information available at the commencement date to determine the present value of lease payments. The incremental borrowing rate is based on a borrowing with a term that is similar to the term of the associated lease. The Company has made an accounting policy election not to include renewal, termination, or purchase options that are not reasonably certain of exercise when determining the term of the borrowing.

The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Operating lease rentals are expensed on a straight-line basis over the life of the lease beginning on the commencement date.

The following table presents the Company's total lease expense and the cash flows arising from lease transactions:

Year ended December 31,	2022	2021	2020
Lease cost:			
Operating lease expense	\$ 20,611	\$ 21,864	\$ 24,726
Short-term lease expense ⁽¹⁾	813	1,127	299
Sublease income ⁽²⁾	(3,423)	(3,116)	(3,578)
Total lease expense	<u>\$ 18,001</u>	<u>\$ 19,875</u>	<u>\$ 21,447</u>
Other information:			
Operating cash outflows from operating leases	\$ 22,932	\$ 22,726	\$ 20,452
Right-of-use assets obtained in exchange for new operating lease liabilities ⁽³⁾	\$ 6,514	\$ (1,739)	\$ 36,742
Weighted-average remaining lease term - operating leases ⁽⁴⁾	9.9 years	10.0 years	10.2 years
Weighted-average discount rate - operating lease ⁽⁵⁾	4.1%	4.1 %	4.2 %

(1) Short-term lease expense is recognized on a straight-line basis over the lease term.

(2) Sublease income largely relates to office properties in New York and London.

(3) In 2021, the Company modified a lease agreement to reflect a reduction in the floor space it occupies in its office property in Zurich.

(4) Weighted-average remaining lease term was calculated on the basis of the remaining lease term and the lease liability balance for each lease at the reporting date.

(5) Weighted-average discount was calculated on the basis of the discount rate that was used to calculate the lease liability balance for each lease at the reporting date and the remaining balance of the lease payments for each lease at the reporting date.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

13. LEASES (CONTINUED)

The following table presents the scheduled maturity of the Company's operating lease liabilities at December 31, 2022:

Year ended December 31,	Expected cash flows
2023	\$ 19,774
2024	13,725
2025	13,148
2026	11,052
2027	9,052
Later years	58,517
Discount	(22,690)
Total discounted operating lease liabilities	\$ 102,577

The following table presents the scheduled maturity of the Company's operating lease liabilities at December 31, 2021:

Year ended December 31,	Expected cash flows
2022	\$ 23,262
2023	19,725
2024	13,556
2025	12,924
2026	10,770
Later years	66,705
Discount	(27,430)
Total discounted operating lease liabilities	\$ 119,512

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

14. EARNINGS PER COMMON SHARE

The following table presents a comparison of earnings (loss) per common share and earnings (loss) per diluted common share:

At and year ended December 31,	2022	2021	2020
Earnings (loss) per common share			
Net income (loss)	\$ 223,083	\$ 618,609	\$ (120,424)
Less: Preferred share dividends	30,250	30,250	30,250
Net income (loss) available (attributable) to common shareholders	<u>\$ 192,833</u>	<u>\$ 588,359</u>	<u>\$ (150,674)</u>
Weighted average common shares outstanding	<u>84,864</u>	<u>84,707</u>	<u>84,262</u>
Earnings (loss) per common share	<u><u>\$ 2.27</u></u>	<u><u>\$ 6.95</u></u>	<u><u>\$ (1.79)</u></u>
Earnings (loss) per diluted common share			
Net income (loss) available (attributable) to common shareholders	<u>\$ 192,833</u>	<u>\$ 588,359</u>	<u>\$ (150,674)</u>
Weighted average common shares outstanding	<u>84,864</u>	<u>84,707</u>	<u>84,262</u>
Share-based compensation plans ⁽¹⁾	<u>805</u>	<u>584</u>	<u>—</u>
Weighted average diluted common shares outstanding	<u>85,669</u>	<u>85,291</u>	<u>84,262</u>
Earnings (loss) per diluted common share	<u><u>\$ 2.25</u></u>	<u><u>\$ 6.90</u></u>	<u><u>\$ (1.79)</u></u>
Weighted average anti-dilutive shares excluded from the dilutive computation	<u>324</u>	<u>656</u>	<u>922</u>

(1) Due to the net loss recognized for the year ended December 31, 2020, the share equivalents were anti-dilutive.

15. SHAREHOLDERS' EQUITY

a) Common Shares

The Company's authorized share capital is 800,000,000 common shares, par value of \$0.0125 per share.

The following table presents changes in common shares issued and outstanding:

Year ended December 31,	2022	2021	2020
Shares issued, balance at beginning of year	176,580	176,580	176,580
Shares issued	—	—	—
Total shares issued at end of year	<u>176,580</u>	<u>176,580</u>	<u>176,580</u>
Treasury shares, balance at beginning of year	(91,806)	(92,227)	(92,621)
Shares repurchased	(897)	(205)	(194)
Shares reissued	791	626	588
Total treasury shares at end of year	<u>(91,912)</u>	<u>(91,806)</u>	<u>(92,227)</u>
Total shares outstanding	<u><u>84,668</u></u>	<u><u>84,774</u></u>	<u><u>84,353</u></u>

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

15. SHAREHOLDERS' EQUITY (CONTINUED)

Treasury Shares

On December 8, 2022, the Company's Board of Directors authorized a new share repurchase plan for up to \$100 million of the Company's common shares through December 31, 2023. The new plan is effective January 1, 2023.

The following table presents common shares repurchased from shares held in Treasury:

Year ended December 31,	2022	2021	2020
In the open market: ⁽¹⁾			
Total shares	634	—	—
Total cost	\$ 34,987	\$ —	\$ —
Average price per share ⁽²⁾	<u>\$ 55.22</u>	<u>\$ —</u>	<u>\$ —</u>
From employees:⁽³⁾			
Total shares	263	205	194
Total cost	\$ 13,994	\$ 10,242	\$ 10,382
Average price per share ⁽²⁾	<u>\$ 53.13</u>	<u>\$ 49.93</u>	<u>\$ 53.43</u>
Total shares repurchased:			
Total shares	897	205	194
Total cost	\$ 48,981	\$ 10,242	\$ 10,382
Average price per share ⁽²⁾	<u>\$ 54.61</u>	<u>\$ 49.93</u>	<u>\$ 53.43</u>

(1) Shares are repurchased pursuant to the Company's Board-authorized share repurchase program announced in December 2021, effective January 1, 2022 through to December 31, 2022.

(2) Calculated using whole numbers.

(3) Shares are repurchased from employees to facilitate the satisfaction of their personal withholding tax liabilities that arise on the vesting of share-settled restricted stock units.

b) Preferred Shares

Series D Preferred Shares

On May 20, 2013, the Company issued \$225 million of 5.50% Series D preferred shares, par value \$0.0125 per share, with a liquidation preference of \$25.00 per share. The Company could redeem the Series D preferred shares on or after June 1, 2018 at a redemption price of \$25.00 per share. Dividends on the Series D preferred shares were non-cumulative. Holders of the Series D preferred shares are entitled to receive, only when, as and if declared by the Board of Directors, non-cumulative cash dividends from the original issue date, quarterly in arrears on the first day of March, June, September and December of each year, commencing on September 1, 2013. To the extent declared, dividends accumulate, with respect to each dividend period, in an amount per share equal to 5.50% of the liquidation preference per annum.

On January 17, 2020, the Company redeemed all 9,000,000 Series D preferred shares, for an aggregate liquidation preference of \$225 million.

Series E Preferred Shares

On November 7, 2016, the Company issued \$550 million of 5.50% Series E preferred shares, par value \$0.0125 per share, with a liquidation preference of \$2,500 per share. The Company could redeem the Series E preferred shares on or after November 7, 2021 at a redemption price of \$2,500 per share. Dividends on the Series E preferred shares are non-cumulative. Holders of the Series E preferred shares are entitled to receive, only when, as and if declared by the Board of Directors, non-cumulative cash dividends from the original issue date, quarterly in arrears on the fifteenth day of January, April, July and

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

15. SHAREHOLDERS' EQUITY (CONTINUED)

October of each year, commencing on January 15, 2017. To the extent declared, dividends accumulate, with respect to each dividend period, in an amount per share equal to 5.50% of the liquidation preference per annum.

Dividends

The following table presents dividends declared and paid related to the Company's common and preferred shares:

	Per share data		
	Dividends declared	Dividends paid in year of declaration	Dividends paid in year following declaration
Year ended December 31, 2022			
Common shares	\$ 1.73	\$ 1.29	\$ 0.44
Series E preferred shares	\$ 137.50	\$ 103.13	\$ 34.38
Year ended December 31, 2021			
Common shares	\$ 1.69	\$ 1.26	\$ 0.43
Series E preferred shares	\$ 137.50	\$ 103.13	\$ 34.38
Year ended December 31, 2020			
Common shares	\$ 1.65	\$ 1.23	\$ 0.42
Series E preferred shares	\$ 137.50	\$ 103.13	\$ 34.38

16. RETIREMENT PLANS

The Company maintains defined contribution plans to provide retirement benefits to eligible employees. Contributions to the plans, which are managed externally, are based on eligible compensation.

For eligible U.S. employees, the Company provides a non-qualified deferred compensation plan that enables employees to make contributions to the plan that are in excess of those permitted under the Company's 401(k) Plan. In addition, employees are permitted to make additional contributions from any bonus received and to benefit from discretionary employer contribution to the Plan.

For the year ended December 31, 2022, total pension expenses were \$34 million (2021: \$34 million and 2020: \$29 million) for the above retirement benefits.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

17. SHARE-BASED COMPENSATION

In May 2017, shareholders approved the establishment of the AXIS Capital Holdings Limited 2017 Long-Term Equity Compensation Plan (the "2017 Plan"). The 2017 Plan provides for, among other things, the issuance of restricted shares, restricted stock units (share-settled awards and cash-settled awards), performance units (share-settled awards and cash-settled awards), stock options, stock appreciation rights and other equity-based awards to the Company's employees and directors. The 2017 Plan authorizes the issuance of a total of 3,400,000 common shares. On May 7, 2021, at the Annual General Meeting of Shareholders of the Company, the Company's shareholders approved an amendment to the Company's 2017 Plan to increase by 1,600,000 the number of common shares authorized for issuance under the Plan. The Company's 2017 Plan replaced its 2007 Long-Term Equity Compensation Plan ("2007 Plan") when it expired in May 2017. All remaining shares available for grant pursuant to the 2007 Plan have been canceled. Awards made pursuant to the 2007 Plan prior to its expiration remain in effect in accordance with the terms of the 2007 Plan. At December 31, 2022, 1,908,750 equity-based awards remained available for grant pursuant to the 2017 Plan.

Restricted Stock Units - Share-Settled

The grant date fair value of share-settled restricted stock units granted pursuant to the 2017 Plan is established at the fair market value of the Company's common shares at the date of grant. These awards either cliff vest at the end of a three year period, vest in accordance with a three year graded vesting schedule in three annual installments beginning on the grant date, or vest in accordance with a four year graded vesting schedule in four annual installments beginning on the grant date.

Restricted Stock Units - Cash-Settled

The grant date fair value of cash-settled restricted stock units granted pursuant to the 2017 Plan is established at the fair market value of the Company's common shares at the date of grant. These awards are liability awards and generally cliff vest at the end of a three year period, or vest in accordance with a four year graded vesting schedule in four annual installments beginning on the grant date.

Performance Restricted Stock Units - Share-Settled and Cash-Settled

Performance restricted stock units granted pursuant to the 2017 Plan represent the right to receive a specified number of common shares in the future, based on the achievement of established performance criteria and continued service during the applicable performance period.

The grant date fair value of performance restricted stock units granted in 2022 and 2021 were measured on the grant date using a Monte Carlo simulation model.

The grant date fair values of performance restricted stock units granted prior to 2021 was established at the fair market value of the Company's common shares at the date of grant.

Awards granted pursuant to the 2017 Plan generally cliff vest at the end of a three year period. Compensation expense is recognized on a straight-line basis over the applicable requisite service period. Awards granted prior to 2021 are subject to periodic adjustment based on the achievement of established performance criteria during the applicable performance period.

Effective 2017, performance restricted stock units granted are share-settled awards.

Acceleration Provisions

Grants provided under the 2017 Plan generally allow for accelerated vesting provisions on the employee's death, permanent disability, or certain terminations following a change in control of the Company occurring within two years of the change in control event. Notwithstanding these vesting provisions, the Compensation Committee of the Company's Board of Directors has broad authority to accelerate vesting at its discretion.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

17. SHARE-BASED COMPENSATION (CONTINUED)

Retirement Plan

In 2016, the Company established the AXIS Executive Restricted Stock Unit Retirement Plan (the "Plan") to reward certain eligible long-term employees of the Company for their dedicated service. The Plan was implemented in 2017. Subject to certain conditions being met, eligible employees do not forfeit all of their outstanding share-settled restricted stock units, share-settled performance restricted stock units or cash-settled restricted stock units on or following their retirement. Absent the Plan, outstanding restricted stock units are generally forfeited on termination of employment.

a) Performance Restricted Stock Units

Performance Restricted Stock Units granted in 2022 and 2021

Performance restricted stock units granted in 2022 and 2021 include a market condition which is the Company's total shareholder return relative to its peer group ("Relative TSR") over the performance period. Relative TSR is calculated in accordance with the terms of the applicable award agreement. If performance goals are achieved, these awards will cliff vest at the end of a three-year performance period within a range of 0% to 200% of target. Performance restricted stock units granted in 2022 and 2021 were share-settled awards.

Valuation assumptions

The fair value of performance restricted stock units granted in 2022 and 2021 were measured on the grant date using a Monte Carlo simulation model.

The following table provides details of the significant inputs used in the Monte Carlo simulation model:

Year ended December 31,	2022	2021
Expected volatility	33.44%	32.99%
Expected term (in years)	3.0	3.0
Expected dividend yield	n/a	n/a
Risk-free interest rate	1.26%	0.17%

Beginning share price: The beginning share price was based on the average closing share price over the 10 trading days preceding and including the start of the performance period.

Ending share price: The ending share price was based on the average closing share price over the 10 trading days preceding and including the end of the performance period.

Expected volatility: The expected volatility was estimated based on the Company's historical share price volatility.

Expected term: Performance for awards granted in 2022 is measured from January 1, 2022 to December 31, 2024, and performance for awards granted in 2021 is measured from January 1, 2021 to December 31, 2023.

Expected dividend yield: The expected dividend yield is not applicable to the performance restricted stock units as dividends are paid at the end of the vesting period and do not affect the value of the performance restricted stock units.

Risk-free interest rate: The risk-free rate was estimated based on the yield on a U.S. treasury zero-coupon bond issued with a remaining term equal to the vesting period of the performance restricted stock units.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

17. SHARE-BASED COMPENSATION (CONTINUED)

Compensation expense associated with performance restricted stock units granted in 2022 and 2021 is determined on the grant date based on the fair value calculated by the Monte Carlo simulation model and is recognized on a straight-line basis over the requisite service period.

Performance Restricted Stock Units granted in 2020 and 2019

Performance restricted stock units granted in 2020 and 2019 and include a market condition which is the Company's total shareholder return relative to its peer group ("Relative TSR") over the performance period. Relative TSR is calculated in accordance with the terms of the applicable award agreement. If performance goals are achieved, these awards will cliff vest at the end of a three-year performance period within a range of 75% to 125% of target. Performance restricted stock units granted in 2020 and 2019 were share-settled awards.

Compensation expense associated with performance restricted stock units granted in 2020 and 2019 is determined based on market value of the Company's common shares measured at the grant date, is recognized on a straight-line basis over the requisite service period and is subject to periodic adjustment based on the achievement of established performance criteria during the performance period.

Performance Restricted Stock Units granted in 2018

Performance restricted stock units granted in 2018 included a performance condition which was growth in the Company's book value per diluted common share adjusted for dividends over three years compared to its peer group. Growth in book value per diluted common share adjusted for dividends was calculated in accordance with the terms of the applicable award agreements. Where performance goals were achieved, these awards cliff vested at the end of the three-year performance period within a range of 0% to 200% of target. Performance restricted stock units granted in 2018 were share-settled awards.

Compensation expense associated with performance restricted stock units granted in 2018 was determined based on market value of the Company's common shares measured at the grant date. The fair value of these awards was recognized on a straight-line basis over the requisite service period and was subject to periodic adjustment based on the achievement of established performance criteria during the performance period.

b) Share-Settled Awards

The following table provides an activity summary of the Company's share-settled restricted stock units:

	Share-Settled Performance Restricted Stock Units		Share-Settled Service Restricted Stock Units	
	Number of restricted stock units	Weighted average grant date fair value	Number of restricted stock units	Weighted average grant date fair value
Nonvested restricted stock units - December 31, 2020	289	\$ 55.92	1,501	\$ 56.50
Granted	122	49.04	1,250	48.04
Vested	(66)	48.89	(561)	56.42
Forfeited	(34)	55.68	(128)	53.37
Nonvested restricted stock units - December 31, 2021	311	54.75	2,062	51.59
Granted	140	68.63	993	56.09
Vested	(100)	54.70	(690)	52.67
Forfeited	(21)	62.26	(248)	53.22
Nonvested restricted stock units - December 31, 2022	330	\$ 60.01	2,117	\$ 53.16

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

17. SHARE-BASED COMPENSATION (CONTINUED)

c) Cash-Settled Awards

The following table provides an activity summary of the Company's cash-settled restricted stock units:

	Cash-Settled Service Restricted Stock Units
	Number of restricted stock units
Nonvested restricted stock units - December 31, 2020	471
Granted	—
Vested	(233)
Forfeited	(23)
Nonvested restricted stock units - December 31, 2021	215
Granted	—
Vested	(145)
Forfeited	(10)
Nonvested restricted stock units - December 31, 2022	60

The following table provides additional information related to share-based compensation:

Year ended December 31,	2022	2021	2020
Share-based compensation expense ⁽¹⁾	\$ 56,136	\$ 49,415	\$ 47,789
Tax benefits associated with share-based compensation expense	\$ 8,839	\$ 7,613	\$ 8,061
Liability for cash-settled restricted stock units ⁽²⁾	\$ 4,792	\$ 9,091	\$ 13,273
Fair value of restricted stock units vested ⁽³⁾	\$ 49,792	\$ 42,967	\$ 50,757
Unrecognized share-based compensation expense	\$ 74,601	\$ 80,805	\$ 74,014
Expected weighted average period associated with the recognition of unrecognized share-based compensation expense	2.3 years	2.4 years	2.4 years

(1) Related to share-settled restricted stock units and cash-settled restricted stock units.

(2) Included in other liabilities in the consolidated balance sheets.

(3) Fair value is based on the closing price of the Company's common shares on the vest date.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

18. RELATED PARTY TRANSACTIONS

A member of the Company's Board of Directors, Mr. Charles Davis, is the Chief Executive Officer of Stone Point Capital, LLC ("Stone Point"). In the ordinary course of business, the Company engages SKY Harbor Capital Management, LLC, an affiliate of Stone Point, to provide asset management services for certain high yield debt portfolios. For the year ended December 31, 2022, total fees paid to SKY Harbor Capital Management, LLC, were \$2 million (2021: \$2 million; 2020: \$3 million).

In addition, the Company has an investment of \$39 million in the Freedom Consumer Credit Fund, LLC - Series B. The manager of this fund is Freedom Financial Asset Management, LLC ("Freedom") which is an indirect subsidiary of Pantheon Partners, LLC ("Pantheon"). Investment funds managed by Stone Point own approximately 14.5% of Pantheon. For the year ended December 31, 2022, fees paid to Freedom were \$2 million (2021: \$3 million; 2020: \$2 million).

The Company has an investment of \$82 million in Stone Point's private equity fund, Trident VIII L.P. ("Trident VIII") and co-investments of \$26 million with Trident VIII. For the year ended December 31, 2022, fees paid to Stone Point in relation to Trident VIII were \$2 million (2021: \$4 million; 2020: \$1 million).

The Company has an investment of \$9 million in Stone Point's private equity fund, Trident IX L.P. ("Trident IX"). For the year ended December 31, 2022, fees paid to Stone Point in relation to Trident IX were \$1 million (2021: \$nil; 2020: \$nil).

The Company has an investment of \$40 million with Rialto Real Estate IV-Property ("Rialto") and co-investments of \$17 million with Rialto, a fund managed by a portfolio company of Stone Point's private equity fund, Trident VII L.P. For the year ended December 31, 2022, fees paid to Rialto were \$2 million (2021: \$1 million; 2020: \$nil).

The Company has an investment of \$18 million in Stone Point Credit Corporation. For the year ended December 31, 2022, fees paid to Stone Point in relation to Stone Point Credit Corporation were \$0.3 million (2021: \$nil; 2020: \$nil).

The Company has an investment of \$17 million in Stone Point Credit Corporation bonds. For the year ended December 31, 2022, the Company earned income of \$0.6 million in relation to this bond.

The Company has an investment of \$6 million in a syndicated accounts receivable loan for which Sound Point Capital Management LP ("Sound Point"), an affiliate of Stone Point, is the lead originator. For the year ended December 31, 2022, the Company has not paid any fees to Sound Point.

The Company has co-investments of \$24 million with Gordon Brothers, an affiliate of Stone Point. For the year ended December 31, 2022, the Company has not paid any fees to Gordon Brothers.

During his tenure as the Company's Chair, Mr. Butt received consulting fees for the year ended December 31, 2020 of \$0.4 million pursuant to the terms of a consulting agreement between Mr. Butt and the Company which terminated on December 31, 2020.

The Company's investment portfolio includes certain investments where it is considered to have the ability to exercise significant influence over the operating and financial policies of the investee. Significant influence is generally deemed to exist where the Company has an investment of 20% or more in the common stock of a corporation or an investment greater than 3% to 5% in closed end funds, limited partnerships, LLCs or similar investment vehicles. At December 31, 2022, the Company has \$462 million (2021: \$555 million) of investments where it is deemed to have the ability to exercise such significant influence. The Company generally pays management and performance fees to the investment managers of these investments. The Company considers all fees paid to the investment managers to be at market rates consistent with negotiated arms-length contracts.

Harrington and Harrington Re commenced operations in 2016 (refer to Note 5 '*Investments*'). The Company has the ability to exercise significant influence over the operating and financial policies of Harrington and Harrington Re. In the normal course of business, the Company enters into certain reinsurance transactions with Harrington Re. For the year ended December 31, 2022, the Company ceded reinsurance premiums of \$324 million (2021: \$283 million; 2020: \$256 million) and ceded losses of \$234 million (2021: \$188 million; 2020: \$187 million) to Harrington Re. In addition, Harrington Re paid certain acquisition costs and administrative fees to the Company. At December 31, 2022, the amount of reinsurance recoverable on unpaid and paid losses was \$819 million (2021: \$717 million) and the amount of ceded reinsurance payable included in

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

18. RELATED PARTY TRANSACTIONS (CONTINUED)

insurance and reinsurance balances payable was \$220 million (2021: \$189 million) in the consolidated balance sheets. All transactions were conducted at market rates consistent with negotiated arms-length contracts.

On June 29, 2021, the Company invested \$10 million in 7.25% fixed to floating rate, senior unsecured notes due 2031, issued by Harrington.

19. REORGANIZATION EXPENSES

For the year ended December 31, 2022, reorganization expenses were \$31 million (2021: \$nil and 2020: \$8 million).

In 2022, reorganization expenses included compensation-related costs and software asset impairments attributable to the Company's exit from catastrophe and property reinsurance lines of business in June 2022.

In 2020, reorganization expenses were related to the Company's transformation program which was launched in 2017. This program encompassed the integration of Novae, which commenced in the fourth quarter of 2017, the realignment of the Company's accident and health business, together with other initiatives designed to increase efficiency and enhance profitability while delivering a customer-centric operating model.

20. INCOME TAXES

Under current Bermuda law, AXIS Capital's Bermuda subsidiaries are not required to pay any taxes in Bermuda on income or capital gains. The Company has received assurance from the Minister of Finance in Bermuda that, in the event of any taxes being imposed, it will be exempt from taxation in Bermuda until March 2035. The Company's primary Bermuda subsidiary has an operating branch in Singapore, which is subject to the relevant taxes in that jurisdiction. The Singapore branch is not under examination in that tax jurisdiction but remains subject to examination for tax years 2019 through 2022.

AXIS Capital's U.S. subsidiaries are subject to federal, state and local corporate income taxes, and other taxes applicable to U.S. corporations. The provision for federal income taxes has been determined under the principles of the consolidated tax provisions of the U.S. Internal Revenue Code and regulations. Should the U.S. subsidiaries pay a dividend outside the U.S. group, withholding taxes will apply. The Company's U.S. subsidiaries are currently under examination for the 2019 and 2020 tax years and remain subject to examination for tax years 2019 through 2022.

In Canada, AXIS Capital's U.S. reinsurance company operates through a branch and its U.S. service company has an unlimited liability company subsidiary based in Canada. The Canadian operations are subject to the relevant taxes in that jurisdiction and remain subject to examination for tax years 2018 through 2022.

AXIS Capital had subsidiaries in Ireland, the U.K., and Brazil in 2022 and AXIS Capital's subsidiaries had branches in the U.K., Switzerland, and Belgium. The Company ceased operations in Dubai in March 2021 and in the Netherlands in December 2021.

A number of tax audits have been completed during 2022, namely Ireland, with respect to the tax years 2016 and 2017, Belgium, with respect to the tax years, 2018 and 2019 and Switzerland, with respect to the tax years, 2019 and 2020. There are no other ongoing audits of AXIS Capital's subsidiaries or branches, but they remain subject to examination in all applicable jurisdictions for tax years 2018 through 2022.

In the U.K., the Company operates through Lloyd's syndicates whose income is subject to tax in the U.K., payable by its corporate members. The income from operations at Lloyd's is also subject to taxes in other jurisdictions in which Lloyd's operates, including the U.S. Under a Closing Agreement between Lloyd's and the IRS, Lloyd's corporate members pay U.S. income tax on U.S. connected income written by Lloyd's syndicates. To the extent that the Lloyd's syndicates incur taxes outside the U.K., they may claim a credit for foreign taxes incurred, limited to the U.K. equivalent tax on the same income.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

20. INCOME TAXES (CONTINUED)

The following table provides an analysis of income tax expense (benefit) and net tax assets:

Year ended December 31,	2022	2021	2020
Current income tax expense (benefit)			
U.S.	\$ 11,491	\$ 35,229	\$ (1,122)
Europe	2,366	(6,082)	365
Other	(147)	—	—
Deferred income tax expense (benefit)			
U.S.	(8,147)	(3,369)	(3,098)
Europe	16,474	36,606	(8,466)
Total income tax expense (benefit)	\$ 22,037	\$ 62,384	\$ (12,321)
Net current tax receivables	\$ 46,704	\$ 27,883	\$ 12,205
Net deferred tax assets (liabilities)	108,220	12,860	(1,625)
Net tax assets	\$ 154,924	\$ 40,743	\$ 10,580

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

20. INCOME TAXES (CONTINUED)

Deferred income taxes reflect the tax impact of temporary differences between the carrying amounts of assets and liabilities for financial reporting and income tax purposes. The following table provides details of the significant components of deferred tax assets and liabilities:

At December 31,	2022	2021
Deferred tax assets:		
Discounting of net reserves for losses and loss expenses	\$ 52,992	\$ 53,415
Unearned premiums	56,146	53,342
Net unrealized investments losses	71,251	—
Operating and capital loss carryforwards ⁽¹⁾	152,896	85,358
Accruals not currently deductible	42,045	38,294
Tax credits	7,619	2,709
Other deferred tax assets	8,590	5,040
Deferred tax assets before valuation allowance	391,539	238,158
Valuation allowance	(60,069)	(16,918)
Deferred tax assets net of valuation allowance	331,470	221,240
Deferred tax liabilities:		
Deferred acquisition costs	(35,211)	(34,845)
Net unrealized investments gains	—	(5,732)
Other investment adjustments and impairments	(20,068)	(18,134)
Intangible assets	(51,993)	(52,722)
Equalization reserves	(2,530)	(2,365)
Acquisition adjustments	(72,351)	(79,464)
Lloyd's deferred year of account results	(34,068)	(5,114)
Other deferred tax liabilities	(7,029)	(10,004)
Deferred tax liabilities	(223,250)	(208,380)
Net deferred tax assets (liabilities)	\$ 108,220	\$ 12,860

(1) At December 31, 2022 and 2021, the total operating loss carryforwards does not include any Lloyd's deferred year of account losses.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

20. INCOME TAXES (CONTINUED)

The following table summarizes total operating and capital loss carryforwards and tax credits:

At December 31,	2022	2021
Operating and Capital Loss Carryforwards⁽¹⁾		
Singapore (branch) operating loss carryforward	\$ 73,769	\$ 76,287
U.K. operating loss carryforward ⁽²⁾	415,274	308,491
Ireland operating loss carryforward	200,822	11,850
Ireland capital loss carryforward	716	716
Switzerland operating loss carryforward ⁽³⁾	187,057	15,989
Tax Credits⁽¹⁾		
Ireland foreign tax credit	\$ 655	\$ 338
U.K. foreign tax credit	2,372	2,372
U.S. foreign tax credit ⁽⁴⁾	4,592	—

(1) At December 31, 2022, the Singapore, U.K., and Ireland operating and capital loss carryforwards and tax credits can be carried forward indefinitely.

(2) At December 31, 2022 and 2021, the U.K. operating loss carryforward does not include any Lloyd's deferred year of account losses.

(3) At December 31, 2022, the Swiss net operating losses can be carried forward 7 years of which \$15,989 expires 2028 and \$171,068 expires 2029.

(4) At December 31, 2022, the U.S. foreign tax credit can be carried back 1 year and carried forward 10 years.

The following table shows an analysis of the movement in the Company's valuation allowance:

At December 31,	2022	2021
Income tax expense (benefit):		
Valuation allowance - beginning of year	\$ 16,918	\$ 20,778
Operating loss carryforwards	21,724	(3,422)
Foreign tax credit	2,401	(2,048)
U.K. branch assets and other foreign rate differentials	(1,261)	1,610
Valuation allowance - end of year	\$ 39,782	\$ 16,918
Accumulated other comprehensive income (loss):		
Valuation allowance - beginning of year	\$ —	\$ —
Change in investment - related items	20,287	—
Valuation allowance - end of year	20,287	—
Total valuation allowance - end of year	\$ 60,069	\$ 16,918

At December 31, 2022 and 2021, the Company had a full valuation allowance on operating loss carryforwards relating to operations in Singapore, foreign tax credits available in Ireland and certain other deferred tax assets related to branch operations.

In 2022, the valuation allowance increased by \$43 million. The net loss incurred by the AXIS Re SE, the Irish reinsurance company, resulted in the recognition of a valuation allowance of \$41 million against the net deferred tax assets of AXIS Re SE and AXIS Re Europe, the Swiss branch of the Irish reinsurance company, of which \$22 million was recorded in net income (loss) and \$19 million was recorded in other comprehensive income (loss). A partial valuation allowance of \$2 million was also recorded against the U.S. foreign tax credits.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

20. INCOME TAXES (CONTINUED)

At December 31, 2022, the Company's U.S. operations had a deferred tax asset of \$71 million for the unrealized losses on its fixed maturity securities that were recorded in other comprehensive income (loss). The Company examined the need for a valuation allowance and after considering all positive and negative evidence concluded a valuation allowance against its net unrealized investment losses in the U.S was not required.

Although realization is not assured, management believes it is more likely than not that the tax benefit of the recorded net deferred tax assets will be realized. In evaluating the Company's ability to recover these tax assets within the jurisdiction from which they arise, it considered all available positive and negative evidence, including historical results, operating loss carry-back potential and scheduled reversals of deferred tax liabilities. The Company believes its U.S. and U.K. operations will produce significant taxable income in future periods and have deferred tax liabilities that will reverse in future periods, such that the Company believes sufficient ordinary taxable income is available to utilize all remaining ordinary deferred tax assets.

A deferred tax liability has not been recorded on undistributed earnings as the U.S. group satisfies the indefinite reversal criteria.

At December 31, 2022 and 2021, there were no unrecognized tax benefits.

The following table presents the distribution of income before income taxes between domestic and foreign jurisdictions and a reconciliation of the actual income tax rate to the amount computed by applying the effective tax rate of 0% under Bermuda law to income before income taxes:

Year ended December 31,	2022	2021	2020
Income (loss) before income taxes			
Bermuda (domestic)	\$ 236,781	\$ 431,310	\$ (45,951)
Foreign	8,340	249,686	(86,794)
Total income (loss) before income taxes	\$ 245,121	\$ 680,996	\$ (132,745)
Reconciliation of effective tax rate (% of income before income taxes)			
Expected tax rate	0.0%	0.0%	0.0%
Foreign taxes at local expected rates:			
U.S.	0.2%	4.8%	5.6%
Europe	1.9%	2.0%	9.2%
Valuation allowance	9.5%	(0.5%)	(1.7%)
Change in enacted tax rate ⁽¹⁾	(2.2%)	1.5%	(1.7%)
Other	(0.4%)	1.4%	(2.1%)
Actual tax rate	9.0%	9.2%	9.3%

(1) At December 31, 2021, the change in enacted tax rate included a change in the UK tax rate from 19% to 25% and in Belgium from 29.58% to 25%.

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

21. OTHER COMPREHENSIVE INCOME (LOSS)

The following table presents the tax effects allocated to each component of other comprehensive income (loss):

	Before tax amount	Income tax (expense) benefit	Net of tax amount
Year ended December 31, 2022			
Available for sale investments:			
Unrealized gains (losses) arising during the year for which an allowance for expected credit losses has not been recognized	\$ (1,171,381)	\$ 127,756	\$ (1,043,625)
Unrealized gains (losses) arising during the year for which an allowance for expected credit losses has been recognized	(73,063)	5,913	(67,150)
Adjustment for reclassification of net realized (gains) losses and impairment losses recognized in net income (loss)	335,294	(30,369)	304,925
Unrealized gains (losses) arising during the year, net of reclassification adjustment	(909,150)	103,300	(805,850)
Foreign currency translation adjustment	(10,986)	—	(10,986)
Total other comprehensive income (loss), net of tax	\$ (920,136)	\$ 103,300	\$ (816,836)
Year ended December 31, 2021			
Available for sale investments:			
Unrealized gains (losses) arising during the year for which an allowance for expected credit losses has not been recognized	\$ (310,710)	\$ 39,263	\$ (271,447)
Unrealized gains (losses) arising during the year for which an allowance for expected credit losses has been recognized	81	—	81
Adjustment for reclassification of net realized (gains) losses and impairment losses recognized in net income (loss)	(94,749)	7,635	(87,114)
Unrealized gains (losses) arising during the year, net of reclassification adjustment	(405,378)	46,898	(358,480)
Foreign currency translation adjustment	621	—	621
Total other comprehensive income (loss), net of tax	\$ (404,757)	\$ 46,898	\$ (357,859)
Year ended December 31, 2020			
Available for sale investments:			
Unrealized gains (losses) arising during the year for which an allowance for expected credit losses has not been recognized	\$ 360,357	\$ (43,191)	\$ 317,166
Unrealized gains (losses) arising during the year for which an allowance for expected credit losses has been recognized	(40)	—	(40)
Adjustment for reclassification of net realized (gains) losses and impairment losses recognized in net income (loss)	(90,380)	12,368	(78,012)
Unrealized gains (losses) arising during the year, net of reclassification adjustment	269,937	(30,823)	239,114
Foreign currency translation adjustment	3,571	—	3,571
Total other comprehensive income (loss), net of tax	\$ 273,508	\$ (30,823)	\$ 242,685

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

21. OTHER COMPREHENSIVE INCOME (LOSS) (CONTINUED)

The following table presents details of amounts reclassified from accumulated other comprehensive income ("AOCI") to net income (loss):

AOCI components	Consolidated statement of operations line item that includes reclassification adjustment	Amounts reclassified from AOCI ⁽¹⁾		
		Year ended December 31,		
		2022	2021	2020
Unrealized gains (losses) on available for sale investments				
	Other realized gains (losses)	\$ (322,726)	\$ 94,771	\$ 91,866
	Impairment losses	(12,568)	(22)	(1,486)
	Total before tax	(335,294)	94,749	90,380
	Income tax (expense) benefit	30,369	(7,635)	(12,368)
	Net of tax	<u>\$ (304,925)</u>	<u>\$ 87,114</u>	<u>\$ 78,012</u>

(1) Amounts in parentheses are charges to net income (loss).

22. STATUTORY FINANCIAL INFORMATION

The Company's insurance and reinsurance operations are subject to laws and regulations in the jurisdictions in which they operate, the most significant of which include Bermuda, Ireland, and the U.S. In addition, the Company is regulated by Lloyd's. These regulations include certain restrictions on the amount of dividends or other distributions, such as loans or cash advances, available to shareholders without prior approval from insurance regulatory authorities.

The statutory capital and surplus in each of the Company's most significant regulatory jurisdictions is shown in the following table:

At December 31,	Bermuda		Ireland		U.S.	
	2022	2021	2022	2021	2022	2021
Required statutory capital and surplus	\$ 1,261,160	\$ 1,517,485	\$ 699,203	\$ 755,270	\$ 651,460	\$ 626,973
Available statutory capital and surplus	\$ 3,156,955	\$ 3,067,879	\$ 1,099,474	\$ 1,147,194	\$ 1,982,618	\$ 1,885,383

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

22. STATUTORY FINANCIAL INFORMATION (CONTINUED)

Bermuda

Under the Insurance Act 1978, amendments thereto and related regulations of Bermuda (the "Act"), the Company's Bermuda subsidiary, AXIS Specialty Bermuda is required to maintain minimum statutory capital and surplus equal to the greater of a minimum solvency margin ("MSM") and the Enhanced Capital Requirement ("ECR"). The MSM is the greater of \$100 million, 50% of net premiums written, 15% of net reserve for losses and loss expenses, and 25% of the ECR. The Company's ECR is calculated based on a standard risk-based capital model developed by the Bermuda Monetary Authority ("BMA"). In 2016, the BMA implemented an Economic Balance Sheet ("EBS") framework which is used as the basis to determine the ECR. At December 31, 2022 and 2021, the required and available statutory capital and surplus were based on this EBS framework.

Under the Act, AXIS Specialty Bermuda is restricted as to the payment of dividends for amounts greater than 25% of the prior year's statutory capital and surplus, whereby an affidavit signed by at least two members of the Board of Directors is required, attesting that any dividend in excess of this amount would not cause the Company to fail to meet its relevant margins. At December 31, 2022, the maximum dividend AXIS Specialty Bermuda could pay, without a signed affidavit, having met minimum levels of statutory capital and surplus requirements, was approximately \$709 million (2021: \$782 million).

Ireland

Effective January 1, 2016, the Company's Irish subsidiaries, AXIS Specialty Europe and AXIS Re SE, are required to maintain the Minimum Capital Requirement ("MCR") and the Solvency Capital Requirement ("SCR") at all times. The capital requirements are calculated by reference to Solvency II definitions. If an entity falls below the MCR or SCR, the Central Bank of Ireland is authorized to take action to restore the financial position of the Company's Irish subsidiaries. During 2022 and 2021, the Company's Irish subsidiaries were in compliance with these requirements.

The Company's Irish subsidiaries may declare dividends subject to meeting their solvency and capital requirements. The maximum dividend is limited to "excess eligible own funds" which is defined as excess Solvency II capital over the SCR and may also be limited to "profits available for distribution", which is defined as accumulated realized profits less accumulated realized losses and statutory reserves. In response to the ongoing COVID-19 pandemic, the Central Bank of Ireland requires the Company's Irish subsidiaries to notify the regulator prior to any distribution being made. The Central Bank of Ireland then has 30 days to request further information from the Company's Irish subsidiaries and where no further communication is received from the regulator the Company's Irish subsidiaries are free to proceed with the dividend distribution. At December 31, 2022, the maximum dividend the Company's Irish subsidiaries could pay, having met their solvency and capital requirements was approximately \$51 million (2021: \$25 million).

United States

The Company's U.S. operations required statutory capital and surplus is determined using the risk-based capital formula ("RBC"), which is the National Association of Insurance Commissioners' (the "Commissioner") method of measuring the minimum capital appropriate for U.S. reporting entities to support its overall business operations in consideration of its size and risk profile. If a company falls below the authorized control level as determined under the RBC, the Commissioner is authorized to take whatever regulatory actions may be considered necessary to protect policyholders and creditors. The maximum dividend that may be paid by the Company's U.S. insurance subsidiaries is restricted by the regulatory requirements of the domiciliary states. Generally, the maximum dividend that may be paid by each of the Company's U.S. insurance subsidiaries is limited to unassigned surplus (statutory equivalent of retained earnings) and may also be limited to statutory net income, net investment income or 10% of total statutory capital and surplus. At December 31, 2022, the maximum dividend that the Company's U.S. insurance operations could pay without regulatory approval was approximately \$119 million (2021: \$120 million).

AXIS CAPITAL HOLDINGS LIMITED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2022, 2021 AND 2020

22. STATUTORY FINANCIAL INFORMATION (CONTINUED)

Lloyd's of London

The Company operates in the Lloyd's market through its corporate members, AXIS Corporate Capital UK Limited and AXIS Corporate Capital UK II Limited, which provide 70% and 30%, respectively, of Syndicate 1686's capital support. Syndicate 1686 is managed by AXIS Managing Agency.

Corporate members of Lloyd's and Lloyd's syndicates are bound by the rules of Lloyd's, which are prescribed by Bye-laws and Requirements made by the Council of Lloyd's under powers conferred by the Lloyd's Act 1982. These rules prescribe members' membership subscription, the level of their contribution to the Lloyd's Central Fund and the assets they must deposit with Lloyd's in support of their underwriting. The Council of Lloyd's has broad powers to sanction breaches of its rules, including the power to restrict or prohibit a member's participation on Lloyd's syndicates.

The capital provided to support underwriting, or FAL, is not available for distribution for the payment of dividends or for working capital requirements. Corporate members may also be required to maintain funds under the control of Lloyd's in excess of their capital requirements and such funds also may not be available for distribution for the payment of dividends. Lloyd's sets the corporate members' required capital annually and reviews funds held compared to latest capital requirements on a quarterly basis. This process is supported by the application of a capital model that is based on regulatory rules pursuant to Solvency II.

FAL may be satisfied by cash, certain investments and letters of credit provided by approved banks. At December 31, 2022, fixed maturities and short-term investments with a fair value of \$530 million (2021: \$658 million) and cash of \$13 million (2021: \$19 million), respectively, were restricted to satisfy AXIS Corporate Capital UK Limited FAL requirements. At December 31, 2022, fixed maturities and short-term investments with a fair value of \$176 million (2021: \$225 million), equity securities with a fair value of \$23 million (2021: \$28 million), and cash of \$6 million (2021: \$6 million) were restricted to satisfy AXIS Corporate Capital UK II Limited FAL requirements (refer to Note 5 'Investments' and Note 12 'Commitments and Contingencies').

Corporate members can apply to Lloyd's to release accumulated funds, whether syndicate profits or interest on FAL, which are in excess of the agreed FAL requirements on a quarterly basis. At December 31, 2022 and 2021, actual capital and assets exceeded the FAL requirements for Syndicate 1686. During 2022, net funds of \$85 million (2021: \$60 million) were released from FAL. Both AXIS Corporate Capital UK Limited and AXIS Corporate Capital UK II Limited continue to support the FAL requirements of Syndicates 1686.

Branch Offices

The Company's operating subsidiaries in Bermuda and the U.S. maintain branch offices in Singapore and Canada, respectively. The Company's Irish operating subsidiaries maintain branch offices in Switzerland, the U.K. and Belgium. The Company's Irish operating subsidiaries also maintained a branch office in the Netherlands until December 31, 2021. As branch offices are not considered separate entities for regulatory purposes, the required and actual statutory capital and surplus amounts for each jurisdiction in the table above, include amounts related to the applicable branch offices. The Company's branch offices in Singapore and Canada are subject to additional minimum capital or asset requirements in their countries of domicile. At December 31, 2022 and 2021, the actual capital/assets for each of these branches exceeded the relevant local regulatory requirements.

Total statutory net income (loss) of the Company's operating subsidiaries was \$134 million, \$569 million, and \$85 million for 2022, 2021 and 2020, respectively. The differences between statutory financial statements and statements prepared in accordance with U.S. GAAP vary by jurisdiction, however, the primary differences are that statutory financial statements may not reflect deferred acquisition costs, certain net deferred tax assets, goodwill and intangible assets, unrealized gains (losses) on fixed maturities or certain unauthorized reinsurance recoverable balances.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company's management has performed an evaluation, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 (the "Exchange Act")) at December 31, 2022. Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that, at December 31, 2022, the Company's disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and is accumulated and communicated to management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosures.

Management's Annual Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act). The Company's management has performed an assessment, with the participation of the Company's Chief Executive Officer and the Company's Chief Financial Officer, of the Company's internal control over financial reporting at December 31, 2022. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013).

Based on that assessment, the Company's management believes that, at December 31, 2022, the Company's internal control over financial reporting is effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

The Company's independent registered public accounting firm has issued an audit report on management's assessment of the Company's internal control over financial reporting at December 31, 2022. This report appears below.

All internal control systems, no matter how well designed, have inherent limitations. As a result, even those internal control systems determined to be effective can provide only reasonable assurance with respect to financial reporting and the preparation of financial statements.

Changes in Internal Control Over Financial Reporting

The Company's management has performed an evaluation, with the participation of the Company's Chief Executive Officer and the Company's Chief Financial Officer, of changes in the Company's internal control over financial reporting that occurred during the quarter ended December 31, 2022. Based on that evaluation, there were no changes in the Company's internal control over financial reporting that occurred during the quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of AXIS Capital Holdings Limited

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of AXIS Capital Holdings Limited and subsidiaries (the “Company”) as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 24, 2023 expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Annual Report on Internal Controls Over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte Ltd.

Hamilton, Bermuda
February 24, 2023

ITEM 9B. OTHER INFORMATION

Disclosure of Certain Activities Under Section 13(r) of the Securities Exchange Act of 1934

Section 13(r) of the Securities Exchange Act of 1934, as amended, requires issuers to disclose in their annual and quarterly reports whether they or any of their affiliates knowingly engaged in certain activities with Iran or with individuals or entities that are subject to certain sanctions under U.S. law. Issuers are required to provide this disclosure even where the activities, transactions or dealings are conducted outside of the U.S. in compliance with applicable law.

As and when allowed by the applicable law and regulations, certain of our non-U.S. subsidiaries provide treaty reinsurance coverage to non-U.S. insurers on a worldwide basis, including insurers of liability, marine, aviation and energy risks, and as a result, these underlying insurance and reinsurance portfolios may have some exposure to Iran. In addition, we provide insurance and facultative reinsurance on a global basis to non-U.S. insureds and insurers, including for liability, marine, aviation and energy risks. Coverage provided to non-Iranian business may indirectly cover an exposure in Iran. For example, certain of our operations underwrite global marine hull war and cargo policies that provide coverage for vessels navigating into and out of ports worldwide, including Iran. For the quarter ended December 31, 2022, there has been no material amount of premium allocated or apportioned to activities relating to Iran. We intend for our non-U.S. subsidiaries to continue to provide such coverage only to the extent permitted by applicable law.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not Applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item is incorporated by reference from the sections captioned "*Proposal No. 1 – Election of Directors*", "*Corporate Governance*", and "*Executive Officers*" in the definitive proxy statement that will be filed with the Securities and Exchange Commission not later than 120 days after the close of the fiscal year ended December 31, 2022 pursuant to Regulation 14A.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference from the sections captioned "*Executive Compensation*", "*Compensation Discussion and Analysis*", "*Director Compensation*", "*Human Capital and Compensation Committee Report*" and "*Human Capital and Compensation Committee Interlocks and Insider Participation*" in the definitive proxy statement that will be filed with the Securities and Exchange Commission not later than 120 days after the close of the fiscal year ended December 31, 2022 pursuant to Regulation 14A.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated by reference from the sections captioned "*Principal Shareholders*" and "*Equity Compensation Plan Information*" in the definitive proxy statement that will be filed with the Securities and Exchange Commission not later than 120 days after the close of the fiscal year ended December 31, 2022 pursuant to Regulation 14A.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference from the sections captioned "*Certain Relationships and Related Transactions*", and "*Corporate Governance*" in the definitive proxy statement that will be filed with the Securities and Exchange Commission not later than 120 days after the close of the fiscal year ended December 31, 2022 pursuant to Regulation 14A.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference from the section captioned "*Principal Accounting Fees and Services*" in the definitive proxy statement that will be filed with the Securities and Exchange Commission not later than 120 days after the close of the fiscal year ended December 31, 2022 pursuant to Regulation 14A.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements, Financial Statement Schedules and Exhibits**1. Financial Statements**

Included in Part II –Refer to Item 8 of this report.

2. Financial Statement Schedules

Report of Independent Registered Public Accounting Firm

Schedule I – Summary of Investments - Other than Investments in Related Parties

Schedule II – Condensed Financial Information of Registrant

Schedule III – Supplementary Insurance Information

Schedule IV – Supplementary Reinsurance Information

Schedules V and VI have been omitted as the information is provided in Item 8, Consolidated Financial Statements, or in the above schedules.

3. Exhibits

Exhibit Number	Description of Document
2.1	Rule 2.7 Announcement dated July 5, 2017 in connection with acquisition of Novae Group plc (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on July 6, 2017).
2.2	Rule 2.7 Announcement dated August 24, 2017 in connection with acquisition of Novae Group plc (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on August 25, 2017).
3.1	Certificate of Incorporation and Memorandum of Association of AXIS Capital Holdings Limited (incorporated by reference to Exhibit 3.1 to the Company's Registration Statement on Form S-1 (Amendment No. 1) (No. 333-103620) filed on April 16, 2003).
3.2	Amended and Restated Bye-laws of AXIS Capital Holdings Limited (incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-8 filed on May 15, 2009).
4.1	Specimen Common Share Certificate (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 (Amendment No. 3) (No. 333-103620) filed on June 10, 2003).

- [4.2](#) Senior Indenture among AXIS Specialty Finance LLC, AXIS Capital Holdings Limited and The Bank of New York Mellon Trust Company, N.A., as trustee, dated as of March 23, 2010 (incorporated by reference to Exhibit 4.4 to the Company's Quarterly Report on Form 10-Q filed on April 27, 2010).
- [4.3](#) Senior Indenture among AXIS Specialty Finance PLC, as issuer, the Company, as guarantor, and The Bank of New York Mellon Trust Company, N.A., as trustee, dated as of March 13, 2014 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 13, 2014).
- [4.4](#) First Supplemental Indenture, dated as of April 3, 2019, among AXIS Specialty Finance PLC, AXIS Capital Holdings Limited and The Bank of New York Mellon Trust Company, N.A., relating to the 5.150% Senior Notes due 2045 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on April 4, 2019).
- [4.5](#) Junior Subordinated Indenture dated as of December 10, 2019, among AXIS Specialty Finance LLC, AXIS Capital Holdings Limited and The Bank of New York Mellon Trust Company, N.A. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on December 11, 2019).
- [4.6](#) First Supplemental Indenture dated as of December 10, 2019, among AXIS Specialty Finance LLC, AXIS Capital Holdings Limited and The Bank of New York Mellon Trust Company, N.A., relating to the 4.900% Junior Subordinated Notes due 2040 (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on December 11, 2019).
- [4.7](#) Form of 5.150% Senior Notes due 2045 (incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed on March 13, 2014).
- [4.8](#) Form of 4.000% Senior Notes due 2027 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on December 6, 2017).
- [4.9](#) Form of 3.900% Senior Notes due 2029 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 19, 2019).
- [4.10](#) Form of 4.900% Junior Subordinated Notes due 2040 (incorporated by reference to Exhibit 4.2 (included as Exhibit A to Exhibit 4.2) to the Company's Current Report on Form 8-K filed on December 11, 2019).
- [4.11](#) Certificate of Designations setting forth the specific rights, preferences, limitations and other terms of the 5.50% Series E Preferred Shares (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on November 7, 2016).
- [†4.12](#) Description of AXIS Capital Holdings Limited's Securities Registered under Section 12 of the Exchange Act.
- [10.1](#) Amended and Restated Shareholders Agreement dated December 31, 2002, among AXIS Capital Holdings Limited and each of the persons listed on Schedule A thereto (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-1 (Amendment No. 3) (No. 333-103620) filed on June 10, 2003).
- *[10.2](#) Employment Agreement by and among Albert Benchimol, AXIS Capital Holdings Limited and AXIS Specialty U.S. Services, Inc. dated May 3, 2012 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K/A filed on May 9, 2012).
- *[10.3](#) Amendment No. 1 to Employment Agreement by and among Albert Benchimol, AXIS Capital Holdings Limited and AXIS Specialty U.S. Services, Inc. dated March 9, 2015 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 11, 2015).
- *[10.4](#) Amendment No. 2 to Employment Agreement by and among Albert Benchimol, AXIS Capital Holdings Limited and AXIS Specialty U.S. Services, Inc. dated January 19, 2016 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 25, 2016).
- *[10.5](#) Amendment No. 3 to Employment Agreement by and among Albert Benchimol, AXIS Capital Holdings Limited, AXIS Specialty U.S. Services, Inc. and AXIS Specialty Limited dated January 1, 2017 (incorporated by reference to Exhibit 10.10 to the Company's Annual Report on Form 10-K filed on February 27, 2017).
- *[10.6](#) Amendment No. 4 to Employment Agreement by and among Albert Benchimol, AXIS Capital Holdings Limited and AXIS Specialty Limited dated December 6, 2018 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 11, 2018).
- *[10.7](#) Employment Agreement by and between Peter W. Wilson and AXIS Specialty U.S. Services, Inc. dated June 23, 2014 (incorporated by reference to Exhibit 10.12 to the Company's Annual Report on Form 10-K filed on February 23, 2015).

- *[10.8](#) Amendment No. 1 to Employment Agreement by and between Peter W. Wilson and AXIS Specialty U.S. Services, Inc. dated September 21, 2016 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 27, 2016).
- *[10.9](#) Amendment No. 2 to Employment Agreement by and between Peter W. Wilson and AXIS Specialty U.S. Services, Inc. dated September 19, 2019 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 24, 2019).
- *[10.10](#) Employment Agreement by and between Peter Vogt and AXIS Specialty U.S. Services, Inc. dated December 11, 2017 (incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K filed on February 28, 2018).
- *[10.11](#) Amendment No. 1 to Employment Agreement by and between Peter Vogt and AXIS Specialty U.S. Services, Inc. dated October 2, 2020 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 7, 2020).
- *[10.12](#) Amendment No. 2 to Employment Agreement by and between Peter Vogt and AXIS Specialty U.S. Services, Inc. dated June 17, 2021 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 21, 2021).
- *[10.13](#) Employment Agreement by and between Steve K. Arora and AXIS Re SE, Dublin (Zurich Branch) dated May 21, 2021 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 26, 2021).
- *[10.14](#) Letter Agreement by and between Steve K. Arora and AXIS Re SE, Dublin (Zurich Branch) dated May 21, 2021 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on May 26, 2021).
- *[10.15](#) Separation Agreement by and between Steve K. Arora and AXIS RE SE Dublin (Zurich Branch) dated June 6, 2022 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on July 27, 2022).
- *[10.16](#) Employment Agreement by and between David Phillips and AXIS Specialty U.S. Services, Inc. dated March 21, 2014 (incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K filed on February 26, 2019).
- *[10.17](#) Amendment No. 1 to Employment Agreement by and between David Phillips and AXIS Specialty U.S. Services, Inc. dated June 17, 2021 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on June 21, 2021).
- *†[10.18](#) Employment Agreement by and between Conrad D. Brooks and AXIS Specialty U.S. Services, Inc. dated December 14, 2016.
- *†[10.19](#) Employment Agreement by and between Vincent Tizzio and AXIS Specialty U.S. Services, Inc. dated May 27, 2021.
- *†[10.20](#) Amendment No. 1 to Employment Agreement by and between Vincent Tizzio and AXIS Specialty U.S. Services, Inc. dated September 9, 2021.
- *[10.21](#) 2007 Long-Term Equity Compensation Plan, as amended (incorporated by reference to Exhibit 4.4 to the Company's Registration Statement on Form S-8 filed on May 15, 2012).
- *[10.22](#) Amended and Restated 2017 Long-Term Equity Compensation Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 11, 2021).
- *[10.23](#) Executive Long-Term Equity Compensation Program (incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K filed on February 26, 2021).
- *[10.24](#) Executive Annual Incentive Plan (incorporated by reference to Exhibit 10.29 to the Company's Annual Report on Form 10-K filed on February 26, 2021).
- *[10.25](#) AXIS Executive RSU Retirement Plan (incorporated by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K filed on February 27, 2017).
- *[10.26](#) Form of Employee Restricted Stock Unit Award Agreement (Performance Vesting) (incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K filed on February 27, 2017).

- *[10.27](#) Form of Employee Restricted Stock Unit Award Agreement (Retirement Eligible/Performance Vesting) (incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K filed on February 27, 2017).
- *[10.28](#) Form of Employee Restricted Stock Unit Award Agreement (Retirement Eligible) (incorporated by reference to Exhibit 10.28 to the Company's Annual Report on Form 10-K filed on February 27, 2017).
- *[10.29](#) Form of Employee Restricted Stock Unit Award Agreement (Performance Vesting) (incorporated by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K filed on February 28, 2018).
- *[10.30](#) Form of Employee Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.38 to the Company's Annual Report on Form 10-K filed on February 28, 2018).
- *[10.31](#) Form of Employee Restricted Stock Unit Award Agreement (Performance Vesting) (incorporated by reference to Exhibit 10.36 to the Company's Annual Report on Form 10-K filed on February 26, 2019).
- *[10.32](#) Form of Employee Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K filed on February 26, 2019).
- *[10.33](#) Form of Employee Restricted Stock Unit Award Agreement (Performance Vesting) (incorporated by reference to Exhibit 10.39 to the Company's Annual Report on Form 10-K filed on February 27, 2020).
- *[10.34](#) Form of Employee Restricted Stock Unit Award Agreement (Performance Vesting) (incorporated by reference to Exhibit 10.40 to the Company's Annual Report on Form 10-K filed on February 26, 2021).
- *[10.35](#) Form of Employee Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.41 to the Company's Annual Report on Form 10-K filed on February 26, 2021).
- *†[10.36](#) Form of Employee Restricted Stock Unit Award Agreement.
- *†[10.37](#) Form of Employee Restricted Stock Unit Award Agreement (Three Year - Performance Vesting).
- *†[10.38](#) Form of Employee Restricted Stock Unit Award Agreement (One Year - Performance Vesting).
- *[10.39](#) AXIS Specialty U.S. Services, Inc. Supplemental Retirement Plan (incorporated by reference to Exhibit 10.23 to the Company's Annual Report on Form 10-K filed on February 26, 2008).
- *[10.40](#) Directors Annual Compensation Program (incorporated by reference to Exhibit 10.42 to the Company's Annual Report on Form 10-K filed on February 27, 2020).
- *†[10.41](#) Directors Annual Compensation Program, effective January 1, 2023.
- [10.42](#) Master Reimbursement Agreement, dated as of May 14, 2010, by and among AXIS Specialty Limited, AXIS Re Limited, AXIS Specialty Europe Limited, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Specialty Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 19, 2010).
- [10.43](#) Amendment to Master Reimbursement Agreement dated January 27, 2012 by and among AXIS Specialty Limited, AXIS Re Limited, AXIS Specialty Europe Limited, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Specialty Insurance Company and AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 30, 2012).
- [10.44](#) Amendment to Committed Facility Letter dated November 20, 2013 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company and AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 21, 2013).
- [10.45](#) Amendment to Committed Facility Letter dated March 31, 2015 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Reinsurance Company, AXIS Surplus Insurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 1, 2015).
- [10.46](#) Amendment to Facility Fee Letter dated March 31, 2015 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Reinsurance Company, AXIS Surplus Insurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on April 1, 2015).

- [10.47](#) Committed Facility Letter dated December 18, 2015 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company and AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 22, 2015).
- [10.48](#) Committed Facility Letter dated March 27, 2017 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company and AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 31, 2017).
- [10.49](#) Amendment to Master Reimbursement Agreement dated March 27, 2017 by and among AXIS Specialty Limited, AXIS Re Limited, AXIS Specialty Europe Limited, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on March 31, 2017).
- [10.50](#) Amendment to Committed Facility Letter dated March 28, 2018 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 3, 2018).
- [10.51](#) Deed of Amendment to \$250 million secured letter of credit facility dated March 28, 2019 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 3, 2019).
- [10.52](#) Deed of Amendment to \$500 million secured letter of credit facility dated December 24, 2019 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 30, 2019).
- [10.53](#) Deed of Amendment to \$250 million secured letter of credit facility dated March 28, 2020 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 1, 2020).
- [10.54](#) Deed of Amendment to \$500 million secured letter of credit facility dated April 1, 2021 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 6, 2021).
- [10.55](#) Deed of Amendment to \$250 million secured letter of credit facility dated April 1, 2021 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on April 6, 2021).
- [10.56](#) Deed of Amendment to \$650 million secured letter of credit facility dated March 31, 2022 by and among AXIS Specialty Limited, AXIS Re SE, AXIS Specialty Europe SE, AXIS Insurance Company, AXIS Surplus Insurance Company, AXIS Reinsurance Company and Citibank Europe plc (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 31, 2022).
- †[21.1](#) Subsidiaries of the Registrant.
- †[22.1](#) Subsidiary Guarantors and Issuers of Guaranteed Securities.
- †[23.1](#) Consent of Deloitte Ltd.
- †[24.1](#) Power of Attorney (included as part of signature pages hereto).
- †[31.1](#) Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- †[31.2](#) Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- †[32.1](#) Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- †[32.2](#) Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

- †101 The following financial information from AXIS Capital Holdings Limited's Annual Report on Form 10-K for the year ended December 31, 2022 formatted in Inline XBRL: (i) Consolidated Balance Sheets at December 31, 2022 and 2021; (ii) Consolidated Statements of Operations for the years ended December 31, 2022, 2021 and 2020; (iii) Consolidated Statements of Comprehensive Income for the years ended December 31, 2022, 2021 and 2020; (iv) Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2022, 2021 and 2020; (v) Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020; and (vi) Notes to Consolidated Financial Statements, tagged as blocks of text and in detail.
- †104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* Exhibits 10.2 through 10.41 represent a management contract, compensatory plan or arrangement in which directors and/or executive officers are eligible to participate.

† Filed herewith.

The agreements and other documents filed as exhibits to this report are not intended to provide factual information or other disclosure other than with respect to the terms of the agreements or other documents themselves, and you should not rely on them for that purpose. In particular, any representations and warranties made by us in these agreements or other documents were made solely within the specific context of the relevant agreement or document and may not describe the actual state of affairs as of the date they were made or at any other time.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on February 24, 2023

AXIS CAPITAL HOLDINGS LIMITED

By: /s/ ALBERT BENCHIMOL
Albert Benchimol
President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned directors and executive officers of AXIS Capital Holdings Limited, hereby appoint Peter Vogt and Conrad D. Brooks, and each of them singly, as our true and lawful attorneys with full power to them and each of them to sign for us, and in our names in the capacities indicated below, any and all amendments to the Annual Report on Form 10-K filed with the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys to any and all amendments to said Annual Report on Form 10-K.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 24, 2023.

<u>Signature</u>	<u>Title</u>
<u>/s/ ALBERT BENCHIMOL</u> Albert Benchimol	Chief Executive Officer, President and Director (Principal Executive Officer)
<u>/s/ PETER VOGT</u> Peter Vogt	Chief Financial Officer (Principal Financial Officer)
<u>/s/ KENT ZIEGLER</u> Kent Ziegler	Global Corporate Controller (Principal Accounting Officer)
<u>/s/ W. MARSTON BECKER</u> W. Marston Becker	Director
<u>/s/ CHARLES A. DAVIS</u> Charles A. Davis	Director
<u>/s/ ANNE MELISSA DOWLING</u> Anne Melissa Dowling	Director

<u>Signature</u>	<u>Title</u>
<u>/s/ ELANOR R. HARDWICK</u> Elanor R. Hardwick	Director
<u>/s/ MICHAEL MILLEGAN</u> Michael Millegan	Director
<u>/s/ THOMAS C. RAMEY</u> Thomas C. Ramey	Director
<u>/s/ HENRY B. SMITH</u> Henry B. Smith	Director
<u>/s/ AXEL THEIS</u> Axel Theis	Director
<u>/s/ BARBARA A. YASTINE</u> Barbara A. Yastine	Director
<u>/s/ LIZABETH H. ZLATKUS</u> Lizabeth H. Zlatkus	Director

AXIS CAPITAL HOLDINGS LIMITED
SUMMARY OF INVESTMENTS - OTHER THAN INVESTMENTS IN RELATED PARTIES

At December 31, 2022

	Amortized cost	Fair value	Amount shown on the balance sheet
(in thousands)			
Type of investment:			
Fixed maturities, available for sale, at fair value			
U.S. government and agency	\$ 2,731,733	\$ 2,639,330	\$ 2,639,330
Non-U.S. government	612,546	562,029	562,029
Corporate debt	4,680,798	4,255,556	4,255,556
Agency RMBS	1,297,423	1,202,785	1,202,785
CMBS	1,029,863	947,778	947,778
Non-agency RMBS	151,907	133,534	133,534
ABS	1,499,728	1,429,527	1,429,527
Municipals	172,475	156,355	156,355
Total fixed maturities, available for sale	\$ 12,176,473	11,326,894	11,326,894
Fixed maturities, held to maturity, at amortized cost			
Corporate debt	\$ 85,200	73,772	85,200
ABS	613,151	600,971	613,151
Total fixed maturities, held to maturity	\$ 698,351	674,743	698,351
Mortgage loans, held for investment, at fair value		627,437	627,437
Short-term investments, at fair value		70,310	70,310
Equity securities, at fair value		485,253	485,253
Other investments, at fair value ⁽¹⁾		682,768	996,751
Equity method investments ⁽²⁾		—	148,288
Total investments		\$ 13,867,405	\$ 14,353,284

(1) Other investments exclude investments where the Company is considered to have the ability to exercise significant influence over the operating and financial policies of the investees.

(2) Equity method investments are excluded as the Company has the ability to exercise significant influence over the operating and financial policies of the investees.

AXIS CAPITAL HOLDINGS LIMITED
CONDENSED BALANCE SHEETS – PARENT COMPANY
DECEMBER 31, 2022 AND 2021

	2022	2021
	(in thousands)	
Assets		
Investments in subsidiaries	\$ 4,943,126	\$ 5,676,653
Cash and cash equivalents	1,932	1,531
Other assets	4,432	6,525
Total assets	\$ 4,949,490	\$ 5,684,709
Liabilities		
Intercompany payable	\$ 225,490	\$ 192,618
Dividends payable	52,992	51,775
Other liabilities	31,098	29,660
Total liabilities	309,580	274,053
Shareholders' equity		
Preferred shares	550,000	550,000
Common shares (<i>shares issued 2022: 176,580; 2021: 176,580</i> <i>shares outstanding 2022: 84,668; 2021: 84,774</i>)	2,206	2,206
Additional paid-in capital	2,366,253	2,346,179
Accumulated other comprehensive income (loss)	(760,300)	56,536
Retained earnings	6,247,022	6,204,745
Treasury shares, at cost (<i>2022: 91,912; 2021: 91,806</i>)	(3,765,271)	(3,749,010)
Total shareholders' equity	4,639,910	5,410,656
Total liabilities and shareholders' equity	\$ 4,949,490	\$ 5,684,709

- (1) AXIS Capital has fully and unconditionally guaranteed all obligations of AXIS Specialty Finance PLC, a 100% owned finance subsidiary, related to the issuance of \$250 million aggregate principal amount of 5.15% senior unsecured notes. AXIS Capital's obligations under this guarantee are unsecured senior obligations and rank equally with all other senior obligations of AXIS Capital.
- (2) AXIS Capital has fully and unconditionally guaranteed all obligations of AXIS Specialty Finance PLC, a 100% owned finance subsidiary, related to the issuance of \$350 million aggregate principal amount of 4.0% senior unsecured notes. AXIS Capital's obligations under this guarantee are unsecured senior obligations and rank equally with all other senior obligations of AXIS Capital.
- (3) AXIS Capital has fully and unconditionally guaranteed all obligations of AXIS Specialty Finance LLC, a 100% owned finance subsidiary, related to the issuance of \$300 million aggregate principal amount of 3.9% senior unsecured notes. AXIS Capital's obligations under this guarantee are unsecured senior obligations and rank equally with all other senior obligations of AXIS Capital.
- (4) AXIS Capital has fully and unconditionally guaranteed all obligations of AXIS Specialty Finance LLC, a 100% owned finance subsidiary, related to the issuance of \$425 million aggregate principal amount of 4.9% fixed-rate reset junior unsecured notes. AXIS Capital's obligation under this guarantee is an unsecured junior subordinated obligation and ranks equally with all future unsecured and junior subordinated obligations of AXIS Capital, and junior in right of payment to all outstanding and future senior obligations of AXIS Capital.

AXIS CAPITAL HOLDINGS LIMITED
CONDENSED STATEMENTS OF OPERATIONS – PARENT COMPANY
YEARS ENDED DECEMBER 31, 2022, 2021 AND 2020

	<u>2022</u>	<u>2021</u>	<u>2020</u>
	(in thousands)		
Revenues			
Net investment income	\$ —	\$ —	\$ 750
Total revenues	<u>—</u>	<u>—</u>	<u>750</u>
Expenses			
General and administrative expenses	<u>60,252</u>	62,843	37,629
Total expenses	<u>60,252</u>	<u>62,843</u>	<u>37,629</u>
Income (loss) before equity in net income (loss) of subsidiaries	<u>(60,252)</u>	(62,843)	(36,879)
Equity in net income (loss) of subsidiaries	<u>283,335</u>	681,452	(83,545)
Net income (loss)	<u>223,083</u>	618,609	(120,424)
Preferred share dividends	<u>30,250</u>	30,250	30,250
Net income (loss) available (attributable) to common shareholders	<u>\$ 192,833</u>	<u>\$ 588,359</u>	<u>\$ (150,674)</u>
Comprehensive income (loss)	<u>\$ (593,753)</u>	<u>\$ 260,750</u>	<u>\$ 122,261</u>

AXIS CAPITAL HOLDINGS LIMITED
CONDENSED STATEMENTS OF CASH FLOWS – PARENT COMPANY
YEARS ENDED DECEMBER 31, 2022, 2021 AND 2020

	<u>2022</u>	<u>2021</u>	<u>2020</u>
	(in thousands)		
Cash flows from operating activities:			
Net income (loss)	\$ 223,083	\$ 618,609	\$ (120,424)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Equity in net (income) loss of subsidiaries	(283,335)	(681,452)	83,545
Change in intercompany payable	32,871	(96,868)	73,575
Dividends received from subsidiaries	225,000	300,000	350,000
Other items	(17,140)	7,882	(8,290)
Share-based compensation expense, net of cash payments	48,494	37,744	29,005
Net cash provided by operating activities	<u>228,973</u>	<u>185,915</u>	<u>407,411</u>
Cash flows from financing activities:			
Taxes paid on withholding shares	(13,994)	(10,242)	(10,382)
Dividends paid - common shares	(149,341)	(145,603)	(141,590)
Repurchase of preferred shares	—	—	(225,000)
Repurchase of common shares - open market	(34,987)	—	—
Dividends paid - preferred shares	(30,250)	(30,250)	(31,831)
Net cash used in financing activities	<u>(228,572)</u>	<u>(186,095)</u>	<u>(408,803)</u>
Increase (decrease) in cash, cash equivalents and restricted cash	401	(180)	(1,392)
Cash, cash equivalents and restricted cash - beginning of year	1,531	1,711	3,103
Cash, cash equivalents and restricted cash - end of year	<u>\$ 1,932</u>	<u>\$ 1,531</u>	<u>\$ 1,711</u>

SCHEDULE III

AXIS CAPITAL HOLDINGS LIMITED
SUPPLEMENTARY INSURANCE INFORMATION

At and year ended December 31, 2022

(in thousands)	Deferred acquisition costs	Reserve for losses and loss expenses	Unearned premiums	Net premiums earned	Net investment income ⁽¹⁾	Net losses and loss expenses	Acquisition costs	Other operating expenses ⁽²⁾	Net premiums written
Insurance	\$ 249,407	\$ 8,381,593	\$ 3,077,628	\$ 3,134,155	\$ —	\$ 1,785,854	\$ 577,838	\$ 443,704	\$ 3,377,906
Reinsurance	224,162	6,787,270	1,283,819	2,026,171	—	1,456,556	444,179	106,585	1,885,150
Corporate	—	—	—	—	418,829	—	—	130,054	—
Total	<u>\$ 473,569</u>	<u>\$ 15,168,863</u>	<u>\$ 4,361,447</u>	<u>\$ 5,160,326</u>	<u>\$ 418,829</u>	<u>\$ 3,242,410</u>	<u>\$ 1,022,017</u>	<u>\$ 680,343</u>	<u>\$ 5,263,056</u>

At and year ended December 31, 2021

(in thousands)	Deferred acquisition costs	Reserve for losses and loss expenses	Unearned premiums	Net premiums earned	Net investment income ⁽¹⁾	Net losses and loss expenses	Acquisition costs	Other operating expenses ⁽²⁾	Net premiums written
Insurance	\$ 212,681	\$ 7,803,529	\$ 2,716,240	\$ 2,651,339	\$ —	\$ 1,514,998	\$ 484,344	\$ 429,282	\$ 2,894,885
Reinsurance	252,912	6,849,565	1,374,436	2,058,511	—	1,493,785	437,490	107,552	2,031,739
Corporate	—	—	—	—	454,301	—	—	126,470	—
Total	<u>\$ 465,593</u>	<u>\$ 14,653,094</u>	<u>\$ 4,090,676</u>	<u>\$ 4,709,850</u>	<u>\$ 454,301</u>	<u>\$ 3,008,783</u>	<u>\$ 921,834</u>	<u>\$ 663,304</u>	<u>\$ 4,926,624</u>

At and year ended December 31, 2020

(in thousands)	Deferred acquisition costs	Reserve for losses and loss expenses	Unearned premiums	Net premiums earned	Net investment income ⁽¹⁾	Net losses and loss expenses	Acquisition costs	Other operating expenses ⁽²⁾	Net premiums written
Insurance	\$ 176,749	\$ 7,310,498	\$ 2,295,763	\$ 2,299,038	\$ —	\$ 1,697,014	\$ 461,533	\$ 378,839	\$ 2,357,501
Reinsurance	254,690	6,616,268	1,390,123	2,072,271	—	1,584,238	467,984	99,129	1,978,908
Corporate	—	—	—	—	349,601	—	—	101,822	—
Total	<u>\$ 431,439</u>	<u>\$ 13,926,766</u>	<u>\$ 3,685,886</u>	<u>\$ 4,371,309</u>	<u>\$ 349,601</u>	<u>\$ 3,281,252</u>	<u>\$ 929,517</u>	<u>\$ 579,790</u>	<u>\$ 4,336,409</u>

- (1) The Company evaluates underwriting results of its reportable segments separately from the performance of its investment portfolio therefore, the Company believes it is appropriate to exclude net investment income from its underwriting profitability measure.
- (2) Amounts related to the Company's reportable segments reflect underwriting-related general and administrative expenses, which includes those general and administrative expenses that are incremental and/or directly attributable to the Company's underwriting operations. Underwriting-related general and administrative expenses is a non-GAAP financial measure as defined in Item 10(e) of SEC Regulation S-K. The reconciliation to general and administrative expenses, the most comparable GAAP financial measure, presented in the table above, also includes corporate expenses of \$130 million, \$126 million, and \$102 million for the years ended December 31, 2022, 2021 and 2020, respectively. Corporate expenses include holding company costs necessary to support our worldwide insurance and reinsurance operations and costs associated with operating as a publicly-traded company. As these costs are not incremental and/or directly attributable to the Company's underwriting operations, these expenses are excluded from underwriting-related general and administrative expenses.

SCHEDULE IV

AXIS CAPITAL HOLDINGS LIMITED
SUPPLEMENTARY REINSURANCE INFORMATION
YEARS ENDED DECEMBER 31, 2022, 2021 AND 2020

(in thousands)	GROSS AMOUNT	CEDED TO OTHER COMPANIES	ASSUMED FROM OTHER COMPANIES	NET AMOUNT	PERCENTAGE OF AMOUNT ASSUMED TO NET
2022					
Property and Casualty	\$ 4,858,629	\$ 2,900,300	\$ 2,685,677	\$ 4,644,006	57.8 %
Accident and Health	244,329	51,239	425,960	619,050	68.8 %
Total	\$ 5,102,958	\$ 2,951,539	\$ 3,111,637	\$ 5,263,056	59.1 %
2021					
Property and Casualty	\$ 4,233,758	\$ 2,700,693	\$ 2,874,687	\$ 4,407,752	65.2 %
Accident and Health	171,694	58,667	405,845	518,872	78.2 %
Total	\$ 4,405,452	\$ 2,759,360	\$ 3,280,532	\$ 4,926,624	66.6 %
2020					
Property and Casualty	\$ 3,455,690	\$ 2,446,890	\$ 2,840,834	\$ 3,849,634	73.8 %
Accident and Health	154,511	43,639	375,903	486,775	77.2 %
Total	\$ 3,610,201	\$ 2,490,529	\$ 3,216,737	\$ 4,336,409	74.2 %