

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, 2020

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 No. 001-14428**

RENAISSANCERE HOLDINGS LTD.

(Exact Name Of Registrant As Specified In Its Charter)

Bermuda

(State or Other Jurisdiction of Incorporation or Organization)

98-0141974

(I.R.S. Employer Identification Number)

Renaissance House, 12 Crow Lane, Pembroke HM 19 Bermuda

(Address of Principal Executive Offices)

(441) 295-4513

(Registrant's telephone number)

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

Title of each class	Trading symbol	Name of each exchange on which registered
Common Shares, Par Value \$1.00 per share	RNR	New York Stock Exchange
Series E 5.375% Preference Shares, Par Value \$1.00 per share	RNR PRE	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a Series F 5.750% Preference Share, Par Value \$1.00 per share	RNR PRF	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 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, as defined in Rule 12b-2 of the 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.

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 Common Shares held by nonaffiliates of the registrant at June 30, 2020 was \$8.6 billion based on the closing sale price of the Common Shares on the New York Stock Exchange on that date.

The number of Common Shares, par value US \$1.00 per share, outstanding at February 1, 2021 was 50,714,520.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the 2021 Annual General Meeting of Shareholders are incorporated by reference into Part III of this report.

**RENAISSANCERE HOLDINGS LTD.
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NOTE ON FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K for the year ended December 31, 2020 (this “Form 10-K”) of RenaissanceRe Holdings Ltd. (the “Company” or “RenaissanceRe”) contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Forward-looking statements are necessarily based on estimates and assumptions that are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which, with respect to future business decisions, are subject to change. These uncertainties and contingencies can affect actual results and could cause actual results to differ materially from those expressed in any forward-looking statements made by, or on behalf of, us. In particular, statements using words such as “may,” “should,” “estimate,” “expect,” “anticipate,” “intend,” “believe,” “predict,” “potential,” or words of similar import generally involve forward-looking statements. For example, we may include certain forward-looking statements in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” with regard to trends in results, prices, volumes, operations, investment results, margins, combined ratios, fees, reserves, market conditions, risk management and exchange rates. This Form 10-K also contains forward-looking statements with respect to our business and industry, such as those relating to our strategy and management objectives, market standing and product volumes, competition and new entrants in our industry, industry capital, insured losses from loss events, government initiatives and regulatory matters affecting the reinsurance and insurance industries.

The inclusion of forward-looking statements in this report should not be considered as a representation by us or any other person that our current objectives or plans will be achieved. Numerous factors could cause our actual results to differ materially from those addressed by the forward-looking statements, including the following:

- the uncertainty of the continuing impact of the COVID-19 pandemic and measures taken in response thereto;
- the effect of legislative, regulatory, judicial or social influences related to the COVID-19 pandemic on our financial performance, including the emergence of unexpected or un-modeled insurance or reinsurance losses and our ability to conduct our business;
- the impact and potential future impacts of the COVID-19 pandemic on the value of our investments and our access to capital in the future or the pricing or terms of available financing;
- the effect that measures taken to mitigate the COVID-19 pandemic have on our operations and those of our counterparties;
- the frequency and severity of catastrophic and other events we cover;
- the effectiveness of our claims and claim expense reserving process;
- the effect of climate change on our business, including the trend towards increasingly frequent and severe climate events;
- our ability to maintain our financial strength ratings;
- the effect of emerging claims and coverage issues;
- collection on claimed retrocessional coverage, and new retrocessional reinsurance being available on acceptable terms and providing the coverage that we intended to obtain;
- our reliance on a small and decreasing number of reinsurance brokers and other distribution services for the preponderance of our revenue;
- our exposure to credit loss from counterparties in the normal course of business;
- the effect of continued challenging economic conditions throughout the world;
- the performance of our investment portfolio and financial market volatility;
- a contention by the United States (the “U.S.”) Internal Revenue Service (the “IRS”) that Renaissance Reinsurance Ltd. (“Renaissance Reinsurance”), or any of our other Bermuda subsidiaries, is subject to taxation in the U.S.;
- the effects of U.S. tax reform legislation and possible future tax reform legislation and regulations, including changes to the tax treatment of our shareholders or investors in our joint ventures or other entities we manage;
- the effect of cybersecurity risks, including technology breaches or failure, on our business;

- the success of any of our strategic investments or acquisitions, including our ability to manage our operations as our product and geographical diversity increases;
- our ability to retain our key senior officers and to attract or retain the executives and employees necessary to manage our business;
- our ability to effectively manage capital on behalf of investors in joint ventures or other entities we manage;
- foreign currency exchange rate fluctuations;
- soft reinsurance underwriting market conditions;
- changes in the method for determining the London Inter-bank Offered Rate (“LIBOR”) and the potential replacement of LIBOR;
- losses we could face from terrorism, political unrest or war;
- our ability to successfully implement our business strategies and initiatives;
- our ability to determine any impairments taken on our investments;
- the effects of inflation;
- the ability of our ceding companies and delegated authority counterparties to accurately assess the risks they underwrite;
- the effect of operational risks, including system or human failures;
- our ability to raise capital if necessary;
- our ability to comply with covenants in our debt agreements;
- changes to the regulatory systems under which we operate, including as a result of increased global regulation of the insurance and reinsurance industries;
- changes in Bermuda laws and regulations and the political environment in Bermuda;
- our dependence on the ability of our operating subsidiaries to declare and pay dividends;
- aspects of our corporate structure that may discourage third-party takeovers and other transactions;
- difficulties investors may have in serving process or enforcing judgments against us in the U.S.;
- the cyclical nature of the reinsurance and insurance industries;
- adverse legislative developments that reduce the size of the private markets we serve or impede their future growth;
- consolidation of competitors, customers and insurance and reinsurance brokers;
- the effect on our business of the highly competitive nature of our industry, including the effect of new entrants to, competing products for and consolidation in the (re)insurance industry;
- other political, regulatory or industry initiatives adversely impacting us;
- our ability to comply with applicable sanctions and foreign corrupt practices laws;
- increasing barriers to free trade and the free flow of capital;
- international restrictions on the writing of reinsurance by foreign companies and government intervention in the natural catastrophe market;
- the effect of Organisation for Economic Co-operation and Development (the “OECD”) or European Union (“EU”) measures to increase our taxes and reporting requirements;
- changes in regulatory regimes and accounting rules that may impact financial results irrespective of business operations;
- our need to make many estimates and judgments in the preparation of our financial statements; and
- the effect of the exit by the United Kingdom (the “U.K.”) from the EU.

As a consequence, our future financial condition and results may differ from those expressed in any forward-looking statements made by or on behalf of us. The factors listed above, which are discussed in more detail in “Part I, Item 1A. Risk Factors,” in this Form 10-K, should not be construed as exhaustive. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to revise or update forward-looking statements to reflect new information, events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

PART I

ITEM 1. BUSINESS

In this Form 10-K, references to “RenaissanceRe” refer to RenaissanceRe Holdings Ltd. (the parent company) and references to “we,” “us,” “our” and the “Company” refer to RenaissanceRe Holdings Ltd. together with its subsidiaries, unless the context requires otherwise.

We have included a “Glossary of Selected Insurance and Reinsurance Terms” at the end of “Part I, Item 1. Business” of this Form 10-K.

All dollar amounts referred to in this Form 10-K are in U.S. dollars unless otherwise indicated.

Due to rounding, numbers presented in the tables included in this Form 10-K may not add up precisely to the totals provided.

OVERVIEW

RenaissanceRe is a global provider of reinsurance and insurance. We provide property, casualty and specialty reinsurance and certain insurance solutions to customers, principally through intermediaries. Established in 1993, we have offices in Bermuda, Australia, Ireland, Singapore, Switzerland, the U.K., and the U.S. Our operating subsidiaries include Renaissance Reinsurance, Renaissance Reinsurance U.S. Inc. (“Renaissance Reinsurance U.S.”), RenaissanceRe Specialty U.S. Ltd. (“RenaissanceRe Specialty U.S.”), RenaissanceRe Europe AG (“RREAG”), Renaissance Reinsurance of Europe Unlimited Company (“Renaissance Reinsurance of Europe”) and our Lloyd’s syndicate, RenaissanceRe Syndicate 1458 (“Syndicate 1458”). We also underwrite reinsurance on behalf of joint ventures, including DaVinci Reinsurance Ltd. (“DaVinci”), Top Layer Reinsurance Ltd. (“Top Layer Re”), Upsilon RFO Re Ltd. (“Upsilon RFO”) and Vermeer Reinsurance Ltd. (“Vermeer”). In addition, through RenaissanceRe Medici Fund Ltd. (“Medici”), we invest in various insurance-based investment instruments that have returns primarily tied to property catastrophe risk.

We aspire to be the world’s best underwriter by matching well-structured risks with efficient sources of capital and our mission is to produce superior returns for our shareholders over the long term. We seek to accomplish these goals by being a trusted, long-term partner to our customers for assessing and managing risk, delivering responsive and innovative solutions, leveraging our core capabilities of risk assessment and information management, investing in these core capabilities in order to serve our customers across market cycles, and keeping our promises. Our strategy focuses on superior risk selection, superior customer relationships and superior capital management. We provide value to our customers and joint venture partners in the form of financial security, innovative products, and responsive service. We are known as a leader in paying valid claims promptly. We principally measure our financial success through long-term growth in tangible book value per common share plus the change in accumulated dividends, which we believe is the most appropriate measure of our financial performance, and in respect of which we believe we have delivered superior performance over time. The principal drivers of our profit are underwriting income, investment income and fee income generated by our third-party capital management business.

Our core products include property, casualty and specialty reinsurance, and certain insurance products principally distributed through intermediaries, with whom we have cultivated strong long-term relationships. We believe we have been one of the world’s leading providers of catastrophe reinsurance since our founding. In recent years, through the strategic execution of several initiatives, including organic growth and acquisitions, we have expanded and diversified our casualty and specialty platform and products, and believe we are a leader in certain casualty and specialty lines of business. We also pursue a number of other opportunities through our ventures unit, which has responsibility for creating and managing our joint ventures and managed funds, executing customized reinsurance transactions to assume or cede risk, and managing certain strategic investments directed at classes of risk other than catastrophe reinsurance. From time to time we consider diversification into new ventures, either through organic growth, the formation of new joint ventures or managed funds, or the acquisition of, or the investment in, other companies or books of business of other companies.

We have determined our business consists of the following reportable segments: (1) Property, which is comprised of catastrophe and other property reinsurance and insurance written on behalf of our operating subsidiaries and certain joint ventures and managed funds managed by our ventures unit, and (2) Casualty

and Specialty, which is comprised of casualty and specialty reinsurance and insurance written on behalf of our operating subsidiaries and certain joint ventures managed by our ventures unit.

To best serve our clients in the places they do business, we have operating subsidiaries, branches, joint ventures, managed funds and underwriting platforms around the world. We write property and casualty and specialty reinsurance through our wholly owned operating subsidiaries, joint ventures, managed funds and Syndicate 1458 and certain insurance products primarily through Syndicate 1458 and RenaissanceRe Specialty U.S. Syndicate 1458 provides us with access to Lloyd's extensive distribution network and worldwide licenses, and also writes business through delegated authority arrangements. The underwriting results of our operating subsidiaries and underwriting platforms are included in our Property and Casualty and Specialty segment results as appropriate.

A meaningful portion of the reinsurance and insurance we write provides protection from damages relating to natural and man-made catastrophes. Our results depend to a large extent on the frequency and severity of these catastrophic events, and the coverages we offer to customers affected by these events. We are exposed to significant losses from these catastrophic events and other exposures we cover, which primarily impact our Property segment, in both the property catastrophe and other property lines of business. Accordingly, we expect a significant degree of volatility in our financial results and our financial results may vary significantly from quarter-to-quarter and from year-to-year, based on the level of insured catastrophic losses occurring around the world. Our Casualty and Specialty business, which represents approximately half of our gross written premiums annually, is an efficient use of capital that is generally less correlated with our Property business. It allows us to bring additional capacity to our clients, across a wider range of product offerings, while continuing to be good stewards of our shareholders' capital.

We continually explore appropriate and efficient ways to address the risk needs of our clients and the impact of various regulatory and legislative changes on our operations. We have created and managed, and continue to manage, multiple capital vehicles across several jurisdictions and may create additional risk bearing vehicles or enter into additional jurisdictions in the future. In addition, our differentiated strategy and capabilities position us to pursue bespoke or large solutions for clients, which may be non-recurring. This, and other factors including the timing of contract inception, could result in significant volatility of premiums in both our Property and Casualty and Specialty segments. As our product and geographical diversity increases, we may be exposed to new risks, uncertainties and sources of volatility.

CORPORATE STRATEGY

We aspire to be the world's best underwriter by matching well-structured risks with efficient sources of capital and our mission is to produce superior returns for our shareholders over the long term. Our strategy for achieving these objectives, which is supported by our core values, our principles and our culture, is to operate an integrated system of what we believe are our three competitive advantages: *superior customer relationships*, *superior risk selection* and *superior capital management*. We believe all three competitive advantages are required to achieve our objectives, and we aim to seamlessly coordinate the delivery of these competitive advantages for the benefit of our shareholders, ceding insurers, brokers and investors in our joint ventures and managed funds.

Superior Customer Relationships. We aim to be a trusted long-term partner to our customers for assessing and managing risk and delivering responsive solutions. We believe our modeling and technical expertise, our risk management products, and our track record of keeping our promises have made us a provider of first choice in many lines of business to our customers worldwide. We seek to offer stable, predictable and consistent risk-based pricing and a prompt turnaround on claims.

Superior Risk Selection. We aim to build a portfolio of risks that produces an attractive risk-adjusted return on utilized capital. We develop a perspective of each risk using both our underwriters' expertise and sophisticated risk selection techniques, including computer models and databases such as Renaissance Exposure Management System ("REMS®"). We pursue a disciplined approach to underwriting and seek to select only those risks that we believe will produce a portfolio with an attractive return, subject to prudent risk constraints. We manage our portfolio of risks dynamically, both within sub-portfolios and across the Company.

Superior Capital Management. We aim to write as much attractively priced business as is accessible to us and then manage our capital accordingly. We generally look to raise capital when we forecast increased

demand in the market, at times by accessing capital through joint ventures or other structures, and return capital to our shareholders or joint venture investors when the demand for our coverages appears to decline and when we believe a return of capital would be beneficial to our shareholders or joint venture and managed fund investors. In using joint ventures and managed funds, we aim to leverage our access to business and our underwriting capabilities on an efficient capital base, develop fee income, generate profit commissions, diversify our portfolio, and provide attractive risk-adjusted returns to our capital providers. We also routinely evaluate and review potential joint venture and managed fund opportunities and strategic investments.

We believe we are well positioned to fulfill our objectives by virtue of the experience and skill of our management team, our integrated and flexible underwriting and operating platform, our significant financial strength, our strong relationships with brokers and customers, our commitment to superior service and our proprietary modeling technology. In particular, we believe our strategy, high performance culture, and commitment to our customers and joint venture and managed fund partners help us to differentiate ourselves by offering specialized services and products at times and in markets where capacity and alternatives may be limited.

SEGMENTS

Our reportable segments are defined as follows: (1) Property, which is comprised of catastrophe and other property reinsurance and insurance written on behalf of our operating subsidiaries and certain entities managed by our ventures unit, and (2) Casualty and Specialty, which is comprised of casualty and specialty reinsurance and insurance written on behalf of our operating subsidiaries and certain entities managed by our ventures unit. In addition to our two reportable segments, we have an Other category, which primarily includes our strategic investments, investments unit, corporate expenses, capital servicing costs, noncontrolling interests and certain expenses related to acquisitions and dispositions.

The following table shows gross premiums written allocated between our segments. Operating results relating to our segments are included in "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Year ended December 31,	2020		2019		2018	
	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written
(in thousands, except percentages)						
Property	\$ 2,999,142	51.7 %	\$ 2,430,985	50.6 %	\$ 1,760,926	53.2 %
Casualty and Specialty	2,807,023	48.3 %	2,376,765	49.4 %	1,549,501	46.8 %
Total gross premiums written	\$ 5,806,165	100.0 %	\$ 4,807,750	100.0 %	\$ 3,310,427	100.0 %

We write proportional business as well as excess of loss business. In addition, Syndicate 1458 and RenaissanceRe Specialty U.S. write insurance business through delegated authority arrangements, which are included in our Property and Casualty and Specialty segments, as appropriate. Our relative mix of business between proportional business and excess of loss business has fluctuated in the past and will likely vary in the future. Proportional and delegated authority business typically have relatively higher premiums per unit of expected underwriting income, together with a higher acquisition expense ratio and combined ratio, than traditional excess of loss reinsurance, as these coverages tend to be exposed to relatively more attritional, and frequent, losses while being subject to less expected severity.

The following table shows gross premiums written allocated between excess of loss, proportional and delegated authority for each of our segments:

Year ended December 31, 2020 (in thousands)	Property	Casualty and Specialty	Total
Excess of loss	\$ 2,075,961	\$ 626,468	\$ 2,702,429
Proportional	656,653	1,925,884	2,582,537
Delegated authority	266,528	254,671	521,199
Total gross premiums written	\$ 2,999,142	\$ 2,807,023	\$ 5,806,165
Year ended December 31, 2019 (in thousands)			
Excess of loss	\$ 1,758,787	\$ 508,515	\$ 2,267,302
Proportional	546,405	1,583,554	2,129,959
Delegated authority	125,793	284,696	410,489
Total gross premiums written	\$ 2,430,985	\$ 2,376,765	\$ 4,807,750
Year ended December 31, 2018 (in thousands)			
Excess of loss	\$ 1,473,381	\$ 366,635	\$ 1,840,016
Proportional	220,458	965,141	1,185,599
Delegated authority	67,087	217,725	284,812
Total gross premiums written	\$ 1,760,926	\$ 1,549,501	\$ 3,310,427

Property Segment

Our Property segment includes our catastrophe class of business, principally comprised of excess of loss reinsurance and excess of loss retrocessional reinsurance to insure insurance and reinsurance companies against natural and man-made catastrophes. It also includes our other property class of business, primarily comprised of proportional reinsurance, property per risk, property (re)insurance, binding facilities and regional U.S. multi-line reinsurance, certain of which have exposure to natural and man-made catastrophes. The following table shows gross premiums written in our Property segment allocated by class of business:

Year ended December 31,	2020		2019		2018	
(in thousands, except percentages)	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written
Catastrophe	\$ 1,886,785	62.9 %	\$ 1,595,472	65.6 %	\$ 1,349,324	76.6 %
Other property	1,112,357	37.1 %	835,513	34.4 %	411,602	23.4 %
Total Property segment gross premiums written	\$ 2,999,142	100.0 %	\$ 2,430,985	100.0 %	\$ 1,760,926	100.0 %

We write catastrophe reinsurance and insurance coverage protecting against large natural catastrophes, such as earthquakes, hurricanes, typhoons and tsunamis, as well as claims arising from other natural and man-made catastrophes such as winter storms, freezes, floods, fires, windstorms, tornadoes, explosions and acts of terrorism. We offer this coverage to insurance companies and other reinsurers primarily on an excess of loss basis. This means we begin paying when our customers' claims from a catastrophe exceed a certain retained amount. We also offer proportional coverages and other structures on a catastrophe-exposed basis and may increase these offerings on an absolute or relative basis in the future. Recently, as our other property class of business has become a larger percentage of our Property segment gross premiums written, proportional coverage and business written through delegated authority arrangements have become larger percentages of our Property segment.

As noted above, our excess of loss property contracts generally cover all natural perils, and our predominant exposure under such coverage is to property damage. However, other risks, including business interruption and other non-property losses, may also be covered under our property reinsurance contracts when arising from a covered peril.

We offer our coverages on a worldwide basis. Because of the wide range of possible catastrophic events to which we are exposed, including the size of such events and the potential for multiple events to occur in the same time period, our property business is volatile and our financial condition and results of operations reflect this volatility. To moderate the volatility of our risk portfolio, we may increase or decrease our presence in the property business based on market conditions and our assessment of risk-adjusted pricing adequacy. We frequently purchase reinsurance or other protection for our own account for a number of reasons, including to optimize the expected outcome of our underwriting portfolio, to manage capital requirements for regulated entities and to reduce the financial impact that a large catastrophe or a series of catastrophes could have on our results.

Casualty and Specialty Segment

We write casualty and specialty reinsurance and insurance covering primarily targeted classes of business where we believe we have a sound basis for underwriting and pricing the risk we assume. This business is predominantly reinsurance, however our book of insurance business has been increasing in recent periods, and may continue to do so. The following table shows gross premiums written in our Casualty and Specialty segment allocated by class of business:

Year ended December 31, (in thousands, except percentages)	2020		2019		2018	
	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written
General casualty (1)	\$ 904,594	32.2 %	\$ 807,901	34.0 %	\$ 453,097	29.2 %
Professional liability (2)	836,120	29.8 %	650,750	27.4 %	485,851	31.4 %
Financial lines (3)	514,192	18.3 %	457,000	19.2 %	352,902	22.8 %
Other (4)	552,117	19.7 %	461,114	19.4 %	257,651	16.6 %
Total Casualty and Specialty segment gross premiums written	\$ 2,807,023	100.0 %	\$ 2,376,765	100.0 %	\$ 1,549,501	100.0 %

(1) Includes automobile liability, casualty clash, employer's liability, umbrella or excess casualty, workers' compensation and general liability.

(2) Includes directors and officers, medical malpractice, and professional indemnity.

(3) Includes financial guaranty, mortgage guaranty, political risk, surety and trade credit.

(4) Includes accident and health, agriculture, aviation, cyber, energy, marine, satellite and terrorism. Lines of business such as regional multi-line and whole account may have characteristics of various other classes of business, and are allocated accordingly.

In recent years, we have expanded our Casualty and Specialty segment operations through organic growth initiatives and acquisitions, and we plan to continue to expand these operations over time if market conditions are appropriate.

Our Casualty and Specialty segment gross premiums written may be subject to significant volatility as certain lines of business in this segment can be influenced by a small number of relatively large transactions. We seek to underwrite these lines using a disciplined underwriting approach and sophisticated analytical tools. We generally target lines of business where we believe we can adequately quantify the risks assumed and provide coverage where we believe our underwriting is robust and the market is attractive. We also seek to identify market dislocations and write new lines of business whose risk and return characteristics are estimated to exceed our hurdle rates. Furthermore, we also seek to manage the correlations of this business with our overall portfolio. We believe that our underwriting and analytical capabilities have positioned us well to manage our casualty and specialty business.

We offer our casualty and specialty reinsurance products principally on a proportional basis, and we also provide excess of loss coverage. These products frequently include tailored features such as limits or sub-limits which we believe help us manage our exposures. Any liability exceeding, or otherwise not subject to,

such limits reverts to the cedant. Our Casualty and Specialty segment frequently provides coverage for relatively large limits or exposures, and thus we are subject to potential significant claims volatility.

Our Casualty and Specialty segment offers certain casualty insurance products through Syndicate 1458, including general liability, medical malpractice and professional liability. Syndicate 1458 also writes business through delegated authority arrangements.

As a result of our financial strength, we have the ability to offer significant capacity and, for select risks, we have made available significant limits. We believe these capabilities, the strength of our casualty and specialty underwriting team, and our demonstrated ability and willingness to pay valid claims are competitive advantages of our casualty and specialty business. While we believe that these and other initiatives will support growth in our Casualty and Specialty segment, we intend to continue to apply our disciplined underwriting approach.

Other

Our Other category primarily includes the results of: (1) our share of strategic investments in certain markets we believe offer attractive risk-adjusted returns or where we believe our investment adds value, and where, rather than assuming exclusive management responsibilities ourselves, we partner with other market participants; (2) our investment unit which manages and invests the funds generated by our consolidated operations; and (3) corporate expenses, certain expenses related to acquisitions and dispositions, capital servicing costs and noncontrolling interests.

Geographic Breakdown

Our exposures are generally diversified across geographic zones, but are also a function of market conditions and opportunities. Our largest exposure has historically been to the U.S. and Caribbean market, which represented 50.5% of our gross premiums written for the year ended December 31, 2020. A significant amount of our U.S. and Caribbean premium provides coverage against windstorms (mainly U.S. Atlantic hurricanes), earthquakes and other natural and man-made catastrophes.

The following table sets forth the amounts and percentages of our gross premiums written allocated to the territory of coverage exposure:

Year ended December 31,	2020		2019		2018	
	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written
(in thousands, except percentages)						
<i>Property Segment</i>						
U.S. and Caribbean	\$ 1,683,538	29.0 %	\$ 1,368,205	28.4 %	\$ 978,063	29.5 %
Worldwide	889,917	15.3 %	643,744	13.4 %	464,311	14.0 %
Europe	189,587	3.3 %	182,544	3.8 %	144,857	4.4 %
Japan	102,228	1.8 %	90,328	1.9 %	71,601	2.2 %
Worldwide (excluding U.S.) (1)	62,058	1.0 %	79,393	1.7 %	66,872	2.0 %
Australia and New Zealand	40,243	0.7 %	32,203	0.7 %	19,273	0.6 %
Other	31,571	0.5 %	34,568	0.7 %	15,949	0.5 %
Total Property Segment	2,999,142	51.6 %	2,430,985	50.6 %	1,760,926	53.2 %
<i>Casualty and Specialty Segment</i>						
Worldwide	1,315,386	22.7 %	935,626	19.5 %	776,976	23.5 %
U.S. and Caribbean	1,248,981	21.5 %	1,071,170	22.3 %	667,125	20.2 %
Europe	121,369	2.1 %	227,178	4.7 %	15,296	0.5 %
Worldwide (excluding U.S.) (1)	56,225	1.0 %	25,291	0.5 %	31,734	1.0 %
Australia and New Zealand	12,429	0.2 %	34,053	0.7 %	3,667	0.1 %
Other	52,633	0.9 %	83,447	1.7 %	54,703	1.7 %
Total Casualty and Specialty Segment	2,807,023	48.4 %	2,376,765	49.4 %	1,549,501	46.8 %
Total gross premiums written	\$ 5,806,165	100.0 %	\$ 4,807,750	100.0 %	\$ 3,310,427	100.0 %

(1) The category "Worldwide (excluding U.S.*)" consists of contracts that cover more than one geographic region (other than the U.S.).

VENTURES

We pursue a number of other opportunities through our ventures unit, which has responsibility for creating and managing our joint ventures and managed funds, executing structured reinsurance transactions to assume or cede risk and managing certain investments directed at classes of risk other than catastrophe reinsurance.

Managed Joint Ventures and Managed Funds

We actively manage a number of joint ventures and managed funds which provide us with an additional presence in the market, enhance our client relationships and generate fee income and profit commissions. These joint ventures and managed funds allow us to leverage our access to business and our underwriting capabilities on a larger capital base. Currently, our principal joint ventures and managed funds include DaVinci, Top Layer Re, Medici, Upsilon RFO, RenaissanceRe Upsilon Fund Ltd. ("Upsilon Fund") and Vermeer.

DaVinci

DaVinci was established in 2001 and principally writes property catastrophe reinsurance and certain casualty and specialty reinsurance lines of business on a global basis. In accordance with DaVinci's underwriting guidelines, we principally seek to construct for DaVinci a portfolio of short-tail reinsurance risks written primarily alongside Renaissance Reinsurance and certain other operating subsidiaries. From time to time, Renaissance Reinsurance or certain other operating subsidiaries write business for, and then cede it to, DaVinci. Third-party investors subscribe for the majority of the shares of DaVinciRe Holdings Ltd. ("DaVinciRe"), DaVinci's holding company. Renaissance Underwriting Managers, Ltd. ("RUM"), a wholly owned subsidiary of RenaissanceRe, acts as the exclusive underwriting manager for DaVinciRe in return for a management fee and performance based incentive fee. Our noncontrolling economic ownership in DaVinciRe was 21.4% at December 31, 2020 (2019 - 21.9%).

Top Layer Re

Top Layer Re was established in 1999 and writes high excess non-U.S. property catastrophe reinsurance. Top Layer Re is owned 50% by State Farm Mutual Automobile Insurance Company ("State Farm") and 50% by Renaissance Reinsurance. State Farm provides \$3.9 billion of stop loss reinsurance coverage to Top Layer Re. Top Layer Re is managed by RUM in return for a management fee.

Medici

Medici is an exempted fund that was incorporated in Bermuda in 2009. Medici's objective is to invest substantially all of its assets in various insurance-based investment instruments that have returns primarily correlated to property catastrophe risk. Third-party investors subscribe for the majority of the participating, non-voting common shares of Medici. Medici is managed by RenaissanceRe Fund Management Ltd. ("RFM") in return for a management fee. Our economic ownership in Medici was 15.7% at December 31, 2020 (2019 - 12.1%).

Upsilon RFO

In 2013, we formed a managed fund, Upsilon RFO, a Bermuda domiciled special purpose insurer ("SPI"), principally to provide additional capacity to the worldwide aggregate and per-occurrence primary and retrocessional property catastrophe excess of loss market. Upsilon RFO enhances our efforts to match desirable reinsurance risk with efficient capital through a strategic capital structure. Original business is written directly by Upsilon RFO under fully-collateralized reinsurance contracts capitalized through the sale of non-voting shares to us and Upsilon Fund, or, to a lesser extent, is written directly by Renaissance Reinsurance and then ceded to Upsilon RFO. As a segregated accounts company, Upsilon RFO is permitted to establish segregated accounts to invest in and hold identified pools of assets and liabilities. Each pool of assets and liabilities in each segregated account is ring-fenced from any claims from the creditors of Upsilon RFO's general account and from the creditors of other segregated accounts within Upsilon RFO.

Upsilon Fund

We incorporated Upsilon Fund, an exempted Bermuda limited segregated accounts company, in 2014. Upsilon Fund was formed to provide a fund structure through which third-party investors can invest in property reinsurance risk managed by us. Third-party investors purchase redeemable, non-voting preference shares linked to specific segregated accounts of Upsilon Fund and own 100% of these shares. Upsilon Fund is managed by RFM in return for a management fee and performance based incentive fee. Currently, Upsilon Fund is invested in specific segregated accounts of Upsilon RFO.

Vermeer

In 2018, we formed Vermeer, an exempted Bermuda reinsurer, with PGGM Vermogensbeheer B.V. ("PGGM"), a Dutch pension fund manager. Vermeer provides capacity focused on risk remote layers in the U.S. property catastrophe market. Vermeer is managed by RUM in return for a management fee. We maintain majority voting control of Vermeer, while Stichting Pensioenfonds Zorg en Welzijn, a pension fund represented by PGGM, retains economic benefits.

Strategic Investments

Our ventures unit also pursues strategic investments where, rather than assuming exclusive management responsibilities ourselves, we partner with other market participants. These investments may be directed at classes of risk other than catastrophe reinsurance, and at times may also be directed at non-insurance risks, such as Insurtech opportunities. We find these investments attractive because of their expected returns, and because they provide us with diversification benefits and information and exposure to other aspects of the market. For example, in 2018 we acquired a minority shareholding in Catalina Holdings (Bermuda) Ltd, a long-term consolidator in the non-life insurance/reinsurance run-off sector, which is accounted for at fair value and is included in other investments. Other examples of strategic investments include our investments in a group of Tower Hill affiliated companies including Bluegrass Insurance Management, LLC, Tower Hill Claims Service, LLC, Tower Hill Holdings, Inc., Tower Hill Insurance Group, LLC, Tower Hill Insurance Managers, LLC, Tower Hill Re Holdings, Inc., Tower Hill Signature Insurance Holdings, Inc. and Tomoka Re Holdings, Inc. (collectively, the "Tower Hill Companies"), which are accounted for under the equity method of accounting. We also have investments in Essent Group Ltd. and Trupanion Inc., which are accounted for at fair value and are included in equity investments trading.

The carrying value of these investments on our consolidated balance sheet, individually or in the aggregate, may differ from the realized value we may ultimately attain, perhaps significantly so. For example, we believe that our investments in the Tower Hill Companies, which are recorded under the equity method of accounting in our consolidated financial statements in accordance with generally accepted accounting principles in the U.S. ("GAAP"), would attract a significantly higher valuation than what is currently recognized in our consolidated financial statements. However, under GAAP, we are prohibited from recording these investments at fair value. In addition, there is no liquid market for these investments.

Other Transactions

Our ventures unit works on a range of other customized reinsurance and financing transactions. For example, we have participated in and continuously analyze other attractive opportunities in the market for insurance-linked securities and derivatives. We believe our products contain a number of customized features designed to fit the needs of our partners, as well as our risk management objectives.

NEW BUSINESS

From time to time we consider diversification into new ventures, either through organic growth, the formation of new joint ventures and managed funds, or the acquisition of or investment in other companies or books of business of other companies. This potential diversification includes opportunities to write targeted, additional classes of risk-exposed business, both directly for our own account and through new joint venture opportunities. We also regularly evaluate potential strategic opportunities we believe might utilize our skills, capabilities, proprietary technology and relationships to support possible expansion into further risk-related coverages, services and products. Generally, we focus on underwriting or trading risks where we believe reasonably sufficient data is available and our analytical abilities provide us with a competitive advantage.

We regularly review potential strategic transactions that might improve our portfolio of business, enhance or focus our strategies, expand our distribution or capabilities, or provide other benefits. In evaluating potential new ventures or investments, we generally seek an attractive estimated return on equity, the ability to develop or capitalize on a competitive advantage, and opportunities which we believe will not detract from our core operations. We believe that our ability to attract investment and operational opportunities is supported by our strong reputation and financial resources, and by the capabilities and track record of our ventures unit.

COMPETITION

The markets in which we operate are highly competitive, and we believe that competition is, in general, increasing and becoming more robust. Our competitors include independent reinsurance and insurance companies, subsidiaries and/or affiliates of globally recognized insurance companies, reinsurance divisions of certain insurance companies, domestic and international underwriting operations, and a range of entities offering forms of risk transfer protection on a collateralized or other non-traditional basis. As our business evolves and the (re)insurance industry continues to experience consolidation, we expect our competitors to change as well. For example, we may face competition from non-traditional competitors, such as technology or Insurtech companies, among others.

We believe that our principal competitors include other companies active in the market, currently including Aeolus Re Ltd., Allied World Assurance Company, AG, AlphaCat Managers (a part of American International Group Inc.), Arch Capital Group Ltd., Argo Group, Ark Insurance Holdings Ltd., Aspen Insurance Holdings Limited, AXA XL, Axis Capital Holdings Limited, Chubb Limited, Conduit Holdings Limited, Convex Re Limited, Core Specialty Insurance Holdings, Inc., Credit Suisse Insurance Linked Strategies, Elementum Advisors, LLC, Everest Re Group, Ltd., Fermat Capital Management, LLC, Fidelis Insurance Holdings Limited, Greenlight Reinsurance Ltd., Hamilton Re Ltd., Hudson Structured Capital Management, James River Insurance Company, Leadenhall Capital Partners LLP, LGT Capital Partners Ltd., Nephila Capital Ltd. (a part of Markel Corporation), Odyssey Re Holdings Corp., PartnerRe Ltd., Pillar Capital Management Limited, Securis Investment Partners LLC, Sampo International, Third Point Reinsurance Ltd., Transatlantic Reinsurance Company (a part of Alleghany Corporation), Validus Reinsurance Ltd. (a part of American International Group Inc.) and Watford Re Ltd., as well as a growing number of private, unrated reinsurers offering predominately collateralized reinsurance. We also compete with certain Lloyd's syndicates active in the London market, such as those managed by Beazley PLC, Hiscox Ltd., and Lancashire Holdings, as well as with a number of other industry participants, such as American International Group, Berkshire Hathaway Inc., Hannover Rückversicherung AG, Ironshore Inc., Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München and Swiss Re Ltd. Hedge funds, pension funds and endowments, investment banks, investment managers (such as Aeolus Re Ltd., AlphaCat Managers, Credit Suisse Insurance Linked Strategies, Fermat Capital Management, LLC, Elementum Advisors, LLC, Leadenhall Capital Partners, LGT Capital Partners Ltd., Nephila Capital Ltd., a part of Markel Corporation, Securis Investment Partners LLC), exchanges and other capital market participants are active in the reinsurance market and the market for related risk, either through the formation of reinsurance companies (such as Aeolus Re Ltd., Fidelis Insurance Holdings Limited, Greenlight Reinsurance Ltd., Hamilton Re Ltd., The D. E. Shaw Group and Third Point Reinsurance Ltd.) or through the use of other financial products, such as catastrophe bonds, other insurance-linked securities and collateralized reinsurance investment funds. We expect competition from these sources to increase. In addition, we continue to anticipate growth in financial products offered to the insurance market that are intended to compete with traditional reinsurance, such as insurance-linked securities (including catastrophe bonds), unrated privately held reinsurance companies providing collateralized or other non-traditional reinsurance, catastrophe-linked derivative agreements and other financial products.

The tax policies of the countries where our customers operate, as well as government sponsored or backed catastrophe funds, also affect demand for reinsurance, sometimes significantly. Moreover, government-backed entities may represent competition for the coverages we provide directly or for the business of our customers, reducing the potential amount of third-party private protection our clients might need or desire.

UNDERWRITING AND ENTERPRISE RISK MANAGEMENT

Underwriting

Our primary underwriting goal is to construct a portfolio of reinsurance and insurance contracts and other financial risks that maximizes our return on shareholders' equity, subject to prudent risk constraints, and to generate long-term growth in tangible book value per common share plus the change in accumulated dividends. We assess each new (re)insurance contract on the basis of the expected incremental return relative to the incremental contribution to portfolio risk.

We have developed a proprietary, computer-based pricing and exposure management system, REMS©, which has analytic and modeling capabilities that help us to assess the risk and return of each incremental (re)insurance contract in relation to our overall portfolio of (re)insurance contracts. We believe that REMS© is a robust underwriting and risk management system that has been successfully integrated into our business processes and culture. In conjunction with pricing models that we run outside of REMS©, the REMS© framework encompasses and facilitates risk capture, analysis, correlation, portfolio aggregation and capital allocation within a single system for all of our natural and non-natural hazards (re)insurance contracts. We continue to invest in and improve REMS©, incorporating our underwriting and modeling experience and adding proprietary software and a significant amount of new industry data. We continually strive to improve our analytical techniques for both natural and non-natural hazard models in REMS© and while our experience is most developed for analyzing natural hazard catastrophe risks, we continue to invest in and evolve our capabilities for assessing non-natural hazard catastrophe risks. Over the last ten years, we have continued to develop our casualty and specialty modeling tools and capabilities in line with our business needs. With the acquisitions of Platinum Underwriters Holdings, Ltd. ("Platinum") and Tokio Millennium Re AG and certain associated entities and subsidiaries (collectively, "TMR"), and the expertise and tools added throughout this period, we believe our tools are state of the art and fully embedded in our underwriting processes.

We generally utilize a multiple model approach when evaluating a proposed transaction, combining both probabilistic and deterministic techniques. We combine the analyses generated by REMS© with other information and other model inputs available to us, including our own knowledge of the client submitting the proposed program, to assess the premium offered against the risk of loss and the cost of utilized capital which the program presents. The underlying risk models integrated into our underwriting and REMS© framework are a combination of internally constructed and commercially available models. We use commercially available natural hazard catastrophe models to assist with validating and stress testing our base model and REMS© results.

Before we bind a (re)insurance risk, exposure data, historical loss information and other risk data is gathered from customers. Using a combination of proprietary software, underwriting experience, actuarial techniques and engineering expertise, the exposure data is reviewed and augmented, as we deem appropriate. We use this data as primary inputs into the REMS© modeling system as a base to create risk distributions to represent the risk being evaluated. We believe that the REMS© modeling system helps us to analyze each policy on a consistent basis, assisting our determination of what we believe to be an appropriate price to charge for each policy based upon the risk to be assumed. In part, through the process described above and the utilization of REMS©, we seek to compare our estimate of the expected returns in respect of a contract with the amount of capital we notionally allocate to the contract based on our estimate of its marginal impact on our portfolio of risks. A key advantage of our REMS© framework is our ability to include additional perils, risks and geographic areas that may not be captured in commercially available natural hazards risk models. For instance, we believe that we are able to incorporate the risk of an increase in the frequency and severity of natural catastrophes due to climate change in our models more comprehensively than commercially available models.

We periodically review the estimates and assumptions that are reflected in REMS© and our other tools, driven either by new hazard science and understanding or by experience of loss events. For example, the movement in cedant loss estimates seen across the market in the months following Hurricane Irma prompted us to perform, in conjunction with several partner companies, a detailed review of the nature of the claims made as a result of that and subsequent events. We have reviewed the prevalence of "assignment of benefits," or "AOB," activity in underlying claims, as well as the impact of loss adjusting expenses and the costs associated with any litigation (often called social inflation), and this process has

informed a change in our view of reinsurance risk in certain parts of the state of Florida based on observed behavioral norms. More generally our team of scientists at RenaissanceRe Risk Sciences Inc. have been tracking the impact of climate change and expanding urban development in both tornado/hail and wildfire risk over the last several years. The recent history of California wildfire events, and particularly the extreme outbreaks during 2017 and 2018, are being used to validate, and where necessary inform, our representation of this risk.

Our underwriters use the combination of our risk assessment and underwriting process, REMS© and other tools in their pricing decisions, which we believe provides them with several competitive advantages. These include the ability to:

- simulate a range of potential outcomes that adequately represents the risk to an individual contract;
- analyze the incremental impact of an individual reinsurance contract on our overall portfolio;
- better assess the underlying exposures associated with assumed retrocessional business;
- price contracts within a short time frame;
- capture various classes of risk, including catastrophe and other insurance risks;
- assess risk across multiple entities (including our various joint ventures and managed funds) and across different components of our capital structure; and
- provide consistent pricing information.

As part of our risk management process, we also use REMS© to assist us, as a retrocedant, with the purchase of reinsurance coverage for our own account.

Our underwriting and risk management process, in conjunction with REMS©, quantifies and manages our exposure to claims from single events and the exposure to losses from a series of events. As part of our pricing and underwriting process, we also assess a variety of other factors, including:

- the reputation of the proposed cedant and the likelihood of establishing a long-term relationship with the cedant;
- the geographic area in which the cedant does business and its market share;
- historical loss data for the cedant and, where available, for the industry as a whole in the relevant regions and lines of business, in order to compare the cedant's historical catastrophe loss experience to industry averages;
- the cedant's pricing strategies; and
- the perceived financial strength of the cedant and factors such as the cedant's historical record of making premium payments in full and on a timely basis.

In order to estimate the risk profile of each line of non-natural hazard reinsurance (i.e., our casualty and specialty lines of business), we establish probability distributions and assess the correlations with the rest of our portfolio. In lines with catastrophe risk, such as excess workers' compensation and terrorism, we seek to directly leverage our skill in modeling property reinsurance risks, and aim to appropriately estimate and manage the correlations between these casualty and specialty lines and our property reinsurance portfolio. For other classes of business, in which we believe we have little or no natural catastrophe exposure, and therefore less correlation with our property reinsurance coverages, we derive probability distributions from a variety of underlying information sources, including recent historical experience, and the application of judgment as appropriate. The nature of some of these businesses lends itself less to the analysis we use for our property reinsurance coverages, reflecting both the nature of available exposure information, and the impact of human factors such as tort exposure. We produce probability distributions to represent our estimates of the related underlying risks which our products cover, which we believe helps us to make consistent underwriting decisions and to manage our total risk portfolio.

In addition, we also produce, utilize, and report on models which measure our utilization of capital in light of regulatory capital considerations and constraints. Our position in respect of these regulatory capital models is reviewed by our risk management professional staff and periodically reported to and reviewed by senior underwriting personnel and executive management with responsibility for our regulated operating entities.

Enterprise Risk Management

We believe that high-quality and effective Enterprise Risk Management (“ERM”) is best achieved when it is a shared cultural value throughout the organization and consider ERM to be a key process which is the responsibility of every individual within the Company. We have developed and utilize tools and processes we believe support a culture of risk management and create a robust framework of ERM within our organization. We believe that our ERM processes and practices help us to identify potential events that may affect us, quantify, evaluate and manage the risks to which we are exposed, and provide reasonable assurance regarding the achievement of our objectives. We believe that effective ERM can provide us with a significant competitive advantage. We also believe that effective ERM assists our efforts to minimize the likelihood of suffering financial outcomes in excess of the ranges which we have estimated in respect of specific investments, underwriting decisions, or other operating or business activities, although we do not believe this risk can be eliminated. We believe that our risk management tools support our strategy of pursuing opportunities and help us to identify opportunities we believe to be the most attractive. In particular, we utilize our risk management tools to support our efforts to monitor our capital and liquidity positions, on a consolidated basis and for each of our major operating subsidiaries, and to allocate an appropriate amount of capital to support the risks we have assumed in the aggregate and for each of our major operating subsidiaries. We believe that our risk management efforts are essential to our corporate strategy and our goal of achieving long-term growth in tangible book value per share plus the change in accumulated dividends for our shareholders.

Our Board of Directors is responsible for overseeing enterprise-wide risk management and is actively involved in the monitoring of risks that could affect us. The members of the Board have regular, direct access to the senior executives and other officers responsible for identifying and monitoring our risks and coordinating our ERM, including our Group Chief Risk Officer, Chief Financial Officer, and Group General Counsel, each of whom reports directly to our Chief Executive Officer, as well as other senior personnel such as our Chief Investment Officer, Chief Compliance Officer, Chief Accounting Officer, Global Corporate Controller and Head of Internal Audit. The Board also receives regular reports from the Controls and Compliance Committee described below.

Our ERM framework operates via a three lines of defense model. The first line of defense consists of individual functions that deliberately assume risks on our behalf and own and manage risk within the Company on a day-to-day and business operational basis. The second line of defense is responsible for risk oversight and also supports the first line to understand and manage risk. A dedicated risk team led by the Group Chief Risk Officer is responsible for this second line and reports to the Board of Director’s Investment and Risk Management Committee and the Chief Executive Officer. The third line of defense, our Internal Audit team, reports to the Audit Committee of the Board of Directors and provides independent, objective assurance as to the assessment of the adequacy and effectiveness of our internal control systems and also coordinates risk-based audits and compliance reviews and other specific initiatives to evaluate and address risk within targeted areas of our business.

The principal risk areas that make up our ERM framework are assumed risk (including reserve risk), business environment risk and operational risk:

- *Assumed Risk.* We define assumed risk as activities where we deliberately take risk against our capital base, including underwriting risks and other quantifiable risks such as credit risk and market risk as they relate to investments, ceded reinsurance credit risk and strategic investment risk, each of which can be analyzed in substantial part through quantitative tools and techniques. Of these, we believe underwriting risk to be the most material to us. In order to understand, monitor, quantify and proactively assess underwriting risk, we seek to develop and deploy appropriate tools to estimate the comparable expected returns on potential business opportunities and the impact that such incremental business could have on our overall risk profile. We use the tools and methods described above in “Underwriting” to seek to achieve these objectives. Embedded within our consideration of assumed risk is our management of our aggregate, consolidated risk profile. In part through the utilization of REMS[®] and our other systems and procedures, we analyze our in-force aggregate assumed risk portfolio on a daily basis. We believe this capability helps us to manage our aggregate exposures and to rigorously analyze and evaluate individual proposed transactions in the context of our in-force portfolio. This aggregation process captures line of business, segment and corporate risk profiles, calculates internal and external capital tests and explicitly models ceded

reinsurance. Generally, additional data is added quarterly to our aggregate risk framework to reflect updated or new information or estimates relating to matters such as interest rate risk, credit risk, capital adequacy and liquidity. This information is used in day-to-day decision making for underwriting, investments and operations and is also reviewed quarterly from both a unit level and consolidated financial position perspective. We also regularly assess, monitor and review our regulatory risk capital and related constraints.

Reserve Risk. Reserve risk is a subcomponent of assumed risk. We define reserve risk as the risks related to our reserve for net claims and claim expenses, including the amount, both absolute and relative, of our outstanding reserve for net claims and claim expenses, and the impact of economic, social, legal and regulatory matters. Our reserve for net claims and claim expenses is subject to significant uncertainty and has the potential to develop adversely in future periods. While reserve risk may increase in both absolute terms and relative to its overall consideration in our ERM framework, we employ robust resources, procedures and technology to identify, understand, quantify and manage this risk. Our reserving methodologies and sensitivities for each respective line of business described in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Critical Accounting Estimates—Claims and Claim Expense Reserves.”

- **Business Environment Risk.** We define business environment risk as the risk of changes in the business, political or regulatory environment that could negatively impact our short term or long-term financial results or the markets in which we operate. This risk area also typically includes emerging risks. These risks are predominately extrinsic to us and our ability to alter or eliminate these risks is limited, so we focus our efforts on monitoring developments, assessing potential impacts of any changes, and investing in cost effective means to attempt to mitigate the consequences of, and ensure compliance with, any new requirements applicable to us.
- **Operational Risk.** We are subject to a number of additional risks arising out of operational, regulatory, and other matters. We define operational risk to include the risk we fail to create, manage, control or mitigate the people, processes, structures or functions required to execute our strategic and tactical plans and assemble an optimized portfolio of assumed risk, and to adjust to and comply with the evolving requirements of business environment risk applicable to us. In light of the rapid evolution of our markets, business environment, and business initiatives, we seek to continually invest in the tools, processes and procedures we use to mitigate our exposure to operational risk on a cost-effective basis. As with assumed risk and business environment risk, operational risk presents intrinsic uncertainties, and we may fail to appropriately identify or mitigate applicable operational risk.

Controls and Compliance Committee. We believe that a key component of our current operational risk management platform is our Controls and Compliance Committee. The Controls and Compliance Committee is comprised of our Chief Financial Officer, Group General Counsel, Chief Compliance Officer, Chief Accounting Officer, Global Corporate Controller, Group Chief Risk Officer, Head of Internal Audit, staff compliance and controls professionals and representatives from our other business units. The purpose of the Controls and Compliance Committee is to establish, assess the effectiveness of, and enforce policies, procedures and practices relating to accounting, financial reporting, internal controls, regulatory, legal, compliance and related matters, and to ensure compliance with applicable laws and regulations, our Code of Ethics and Conduct (the “Code of Ethics”), and other relevant standards. In addition, the Controls and Compliance Committee is charged with reviewing certain transactions that potentially raise complex and/or significant tax, legal, accounting, regulatory, financial reporting, reputational or compliance issues.

We address other areas of operational risk through our disaster recovery program, human resource practices such as motivating and retaining top talent, our strict tax protocols and our legal and regulatory policies and procedures.

Ongoing Development and Enhancement. We seek to reflect and categorize risks we monitor in part through quantitative risk distributions, even where we believe that such quantitative analysis is not as robust or well developed as our tools and models for measuring and evaluating other risks, such as catastrophe and market risks. We also seek to improve the methods by which we measure risks and believe effective risk management is a continual process that requires ongoing improvement and development. We seek from time to time to identify effective new practices or additional developments both from within our industry

and from other sectors. We believe that our ongoing efforts to embed ERM throughout our organization help us produce and maintain a competitive advantage and achieve our corporate goals.

ENVIRONMENTAL AND CLIMATE CHANGE MATTERS

Our principal economic exposures arise from our coverages for natural disasters and catastrophes. We believe, and believe the consensus view of current scientific studies substantiates, that changes in climate conditions, primarily global temperatures and expected sea levels, have increased, and are likely to continue to increase, the severity and frequency of weather related natural disasters and catastrophes relative to the historical experience over the past 100 years. While it is difficult to distinguish between permanent climate change and transient climate variability, an ever expanding body of research suggests that these trends are in fact man-made, and, if correct, we believe that this trend will not revert to the mean but continue to worsen. We believe that this increase in severe weather, coupled with currently projected demographic trends in catastrophe-exposed regions, contributes to factors that will increase the average economic value of expected losses, increase the number of people exposed per year to natural disasters and in general exacerbate disaster risk, including risks to infrastructure, global supply chains and agricultural production. Accordingly, we expect an increase in both the frequency and magnitude of claims, especially from properties located in coastal areas.

The consideration of the impacts of climate change is integral to our ERM process. We have taken measures to mitigate losses related to climate change through our underwriting process and by continuously monitoring and adjusting our risk management models to reflect the higher level of risk that we think will persist.

As discussed further below under “—Investments,” we structure our investment portfolio to emphasize the preservation of capital and the availability of liquidity to meet our claims obligations and to be well diversified across market sectors and to generate relatively attractive returns on a risk-adjusted basis over time. To further the sustainability of our investment portfolio, we consider certain environmental, social and governance factors within our investment strategy.

In addition to the impacts that environmental incidents have on our business, there has been a proliferation of governmental and regulatory scrutiny related to climate change and greenhouse gases, which will also affect our business. Many of our regulators are increasingly focused on climate change disclosures, for example, the New York State Department of Financial Services (the “NYDFS”) has issued guidance indicating that insurers should start integrating the consideration of the financial risk of climate change into their governance frameworks, risk management processes, and business strategies.

RATINGS

Financial strength ratings are an important factor in evaluating and establishing the competitive position of reinsurance and insurance companies. We have received high claims-paying and financial strength ratings from A.M. Best Company, Inc. (“A.M. Best”), Standard and Poor’s Rating Services (“S&P”), Moody’s Investors Service (“Moody’s”) and Fitch Ratings Ltd. (“Fitch”). These ratings represent independent opinions of an insurer’s financial strength, operating performance and ability to meet policyholder obligations, and are not an evaluation directed toward the protection of investors or a recommendation to buy, sell or hold any of our securities. Rating organizations continually review the financial positions of our principal operating subsidiaries and joint ventures and ratings may be revised or revoked by the agencies which issue them.

In addition, S&P and A.M. Best assess companies’ ERM practices, which is an opinion on the many critical dimensions of risk that determine overall creditworthiness. RenaissanceRe has been assigned an ERM rating of “Very Strong” from each of these agencies, which is the highest ERM score assigned.

See “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Ratings” for the ratings of our principal operating subsidiaries and joint ventures by segment, and details of recent ratings actions.

RESERVES FOR CLAIMS AND CLAIM EXPENSES

We believe the most significant accounting judgment made by management is our estimate of claims and claim expense reserves. Claims and claim expense reserves represent estimates, including actuarial and

statistical projections at a given point in time, of the ultimate settlement and administration costs for unpaid claims and claim expenses arising from the insurance and reinsurance contracts we sell. We establish our claims and claim expense reserves by taking claims reported to us by insureds and ceding companies, but which have not yet been paid (“case reserves”), adding estimates for the anticipated cost of claims incurred but not yet reported to us, or incurred but not enough reported to us (collectively referred to as “IBNR”) and, if deemed necessary, adding costs for additional case reserves which represent our estimates for claims related to specific contracts which we believe may not be adequately estimated by the client as of that date, or adequately covered in the application of IBNR. Our reserving committee, which includes members of our senior management, reviews, discusses, and assesses the reasonableness and adequacy of the reserving estimates included in our audited financial statements. Because of the nature of the coverages that we provide, the amount and timing of the cash flows associated with our policy liabilities will fluctuate, perhaps significantly, and, therefore, are highly uncertain. Our reserving techniques, assumptions and processes differ among our Property and Casualty and Specialty segments. Refer to “Note 8. Reserve for Claims and Claim Expenses” in our “Notes to the Consolidated Financial Statements” for more information on the risks we insure and reinsure, the reserving techniques, assumptions and processes we follow to estimate our claims and claim expense reserves, prior year development of the reserve for claims and claim expenses, analysis of our incurred and paid claims development and claims duration information for each of our Property and Casualty and Specialty segments. In addition, refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Critical Accounting Estimates—Claims and Claim Expense Reserves” for more information on our current estimates versus our initial estimates of our claims reserves, and sensitivity analysis for each of our Property and Casualty and Specialty segments.

INVESTMENTS

We structure our investment portfolio to emphasize the preservation of capital and the availability of liquidity to meet our claims obligations and to be well diversified across market sectors and to generate relatively attractive returns on a risk-adjusted basis over time. The majority of our investments consists of highly-rated fixed income securities. We also hold a significant amount of short-term investments which have a maturity of one year or less when purchased. In addition, we hold other investments, including private equity investments, catastrophe bonds, private credit investments, senior secured bank loan funds, hedge funds and certain equity securities, which offer the potential for higher returns but with relatively higher levels of risk. Our investment portfolio takes into account the duration of our liabilities and the level of strategic asset risk we wish to assume over the medium- to long-term. We may from time to time re-evaluate our investment guidelines and explore investment allocations to other asset classes that either increase or decrease our overall asset risk. Our investments are subject to market-wide risks and fluctuations, as well as to risks inherent in particular securities. For additional information regarding our investment portfolio, refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Investments” and “Note 5. Investments” in our “Notes to the Consolidated Financial Statements.”

MARKETING

We believe that our modeling and technical expertise, the risk management products we provide to our customers, and our reputation for paying claims promptly has enabled us to become a provider of first choice in many lines of business to our customers worldwide. We market our products primarily through reinsurance brokers and we focus our marketing efforts on targeted brokers and partners. We believe that our existing portfolio of business is a valuable asset and, therefore, we attempt to continually strengthen relationships with our existing brokers and customers. We believe that by maintaining close relationships with brokers, we are able to obtain access to a broad range of potential reinsureds. We target prospects that are capable of supplying detailed and accurate underwriting data and that potentially add further diversification to our book of business.

We believe that primary insurers’ and brokers’ willingness to use a particular reinsurer is based not just on pricing, but also on the financial security of the reinsurer, its claim paying ability ratings and demonstrated willingness to promptly pay valid claims, the quality of a reinsurer’s service, the reinsurer’s willingness and ability to design customized programs, its long-term stability and its commitment to provide stable reinsurance capacity across market cycles. We believe we have established a reputation with our brokers

and customers for prompt response on underwriting submissions, for fast payments on valid claims and for providing creative solutions to our customers' needs.

Our portfolio of business continues to be characterized by relatively large transactions with ceding companies with whom we do business, although no current relationship exceeds 10% of our gross premiums written. Accordingly, our gross premiums written are subject to significant fluctuations depending on our success in maintaining or expanding our relationships with these customers. We believe that our willingness and ability to design customized programs and to provide bespoke risk management products has helped us to develop long-term relationships with brokers and customers.

Our brokers assess client needs and also perform data collection, contract preparation and other administrative tasks, enabling us to market our products cost effectively. Our distribution is reliant on a small number of broker relationships, which has continued to decrease in recent years as a result of consolidation in the broker sector. We expect this concentration to continue and perhaps increase. For example, in March 2020, AON plc and Willis Towers Watson Public Limited Company announced they had agreed to merge, with the deal expected to close in 2021. In 2020, three brokerage firms accounted for 79.6% of our gross premiums written.

The following table shows the percentage of our Property and Casualty and Specialty segments' gross premiums written generated through subsidiaries and affiliates of our largest brokers:

<u>Year ended December 31, 2020</u>	Property	Casualty and Specialty	Total
Aon plc	47.3 %	38.1 %	42.8 %
Marsh Inc.	26.0 %	22.8 %	24.5 %
Willis Towers Watson Public Limited Company	7.9 %	17.1 %	12.3 %
Total of largest brokers	81.2 %	78.0 %	79.6 %
All others	18.8 %	22.0 %	20.4 %
Total	100.0 %	100.0 %	100.0 %

HUMAN CAPITAL RESOURCES

Our Culture and Human Capital Resources Oversight

At RenaissanceRe, our people are our most valuable resource and are core to our success. We believe in fostering an open and collaborative culture that encourages employees to take ownership of their performance and development. Our executive management team is committed to creating an environment where every person on our team can succeed. The Compensation and Corporate Governance Committee of our Board of Directors is actively engaged in the oversight of these initiatives and receives regular updates from management on progress and developments, and our executive management team and Compensation and Corporate Governance Committee receive regular reports on progress against our annual human resources tactical plans.

Our Employees

We strive to hire talented people and invest heavily in their development to aid them in their professional and personal growth. As employees grow at RenaissanceRe, we support them in mastering specific competencies at each career level, and we believe our Career Development Framework provides all our employees with tools to facilitate career growth at RenaissanceRe. Our bespoke approach to development encourages continuous learning through skills-based training, technical development and stretch assignments.

At February 1, 2021, we employed 604 people worldwide (February 3, 2020 - 566, February 4, 2019 - 411). Of these employees, 171 were located in Bermuda, 145 in the U.S., 271 in Europe and 17 in the Asia-Pacific region.

Our Work Environment

We endeavor to provide a safe, healthy and supportive work environment that promotes the well-being of our employees and the value that they contribute to our global organization. We actively encourage open dialogue with our employees, and conduct regular surveys to measure employee satisfaction and engagement, allowing us to ensure that lower-scoring areas are addressed and clear guidance and support is provided.

We have focused on our employees' safety during the COVID-19 pandemic and have switched to a largely remote work paradigm in response to government restrictions. Our Board of Directors and management team have focused on safety during the COVID-19 pandemic by, among other things, establishing corporate, location-based policies and procedures, providing additional personal protective equipment and cleaning supplies to employees, and implementing protocols to address actual and suspected COVID-19 exposures and cases. As appropriate, certain of our offices have opened on an optional and limited basis in accordance with applicable rules and regulations in their respective jurisdictions. We believe that we have adjusted well to date, benefiting from prior and enhanced investments in technology, systems and training, which have enabled us to maintain robust oversight of the Company and keep our employees connected during the COVID-19 pandemic.

Our Diversity, Equity and Inclusion (“DEI”) Initiatives

We believe that by seeking diversity, creating equity and practicing inclusion we will build an even stronger culture and company. Our cross-functional DEI Executive Council chaired by our Chief Underwriting Officer sets our DEI strategy, identifying focus areas such as raising awareness of DEI throughout our organization, enhancing our recruitment and selection process, and furthering equity around leadership opportunities and development. Our DEI governance structure also includes local advisory committees responsible for implementation at a country level.

Our Compensation Practices

We design our compensation programs to incorporate a range of components that we believe help to attract and retain talented individuals and mitigate potential risks, while rewarding employees for pursuing our strategic and financial objectives through appropriate risk taking, risk management and prudent tactical and strategic decision making. We strive to provide fair and living employee wages that are competitive and consistent with employee positions, skill levels, experience, knowledge and geographic location. We do this by performing regular market checks of our competitive pay programs in each of our locations, as well as an annual pay cycle review where we assess each employee's pay levels.

INFORMATION TECHNOLOGY

Our business and support functions utilize information systems that provide critical services to both our employees and our customers. We have an integrated team of professionals who manage and support our communication platforms, transaction-management systems, and analytics and reporting capabilities, including the development of proprietary solutions like REMS©. We use off-site, secure data centers in North America and Europe for most of our core applications, but our use of cloud-based services is increasing as the security and reliability of these services improves.

Information security and privacy are important concerns, with an escalating cyber-threat environment and evolving regulatory requirements driving continued investment in this area. Our information security program is designed to meet or exceed industry best practices. We are subject to a number of cybersecurity and data privacy laws and regulations, such as the NYDFS 23 NYCRR 500 Cybersecurity Requirements for Financial Services Companies, and the EU General Data Protection Regulation. New York's cybersecurity regulation requires regulated entities, including Renaissance Reinsurance U.S., a New York licensed insurer, and RenaissanceRe Europe AG, US Branch (“RREAG, US Branch”), to establish and maintain a cybersecurity program designed to protect each of their information technology systems as well as their customers' data. Our program is designed to comply with all applicable cybersecurity regulatory requirements and we continue to evaluate and assess our compliance in the changing regulatory environment.

We have in place, and seek to continuously improve, a comprehensive system of security controls, managed by a dedicated staff. Periodically, we engage the services of reputable third parties to perform

security penetration testing, and update our security controls based on any findings. In addition, we are subject to independent assessment and review by regulators, as well as an annual audit of our security controls by our independent internal audit team. We also provide regular security risk education awareness and training sessions for all staff. Despite these efforts, computer viruses, hackers, employee misuse or misconduct, and other internal or external hazards could expose our data systems to security breaches, cyber-attacks or other disruptions.

We have implemented disaster recovery and business continuity plans for our operations, which are regularly tested with respect to our business-critical infrastructure and systems. We employ data backup procedures that seek to ensure that our key business systems and data are regularly backed up, and can be restored promptly if, and as, needed. In addition, we generally store backup information at off-site locations, in order to seek to minimize our risk of loss of key data in the event of a disaster. Our recovery plans involve arrangements with our off-site, secure data centers and cloud infrastructure. We believe we will be able to utilize these plans to efficiently recover key system functionality in the event that our primary systems are unavailable due to various scenarios, such as natural disasters.

REGULATION

The business of insurance and reinsurance is regulated in most countries and all states in the U.S., although the degree and type of regulation varies significantly from one jurisdiction to another. Currently, we operate through offices primarily in Australia, Bermuda, Ireland, Singapore, Switzerland, the U.S. and the U.K. Although principally regulated by the regulatory authorities of their respective jurisdictions, our operating subsidiaries may also be subject to regulation in the jurisdictions of their ceding companies. In addition, expansion into additional insurance markets could expose us or our subsidiaries to increasing regulatory oversight. However, we intend to continue to conduct our operations so as to minimize the likelihood that our Bermudian subsidiaries will become subject to direct U.S. regulation.

Bermuda Regulation

All Bermuda companies must comply with the provisions of the Companies Act 1981. In addition, the Insurance Act 1978 and related regulations (collectively, the "Insurance Act"), regulate the business of our Bermuda insurance, reinsurance and management company subsidiaries. As a holding company, RenaissanceRe is not regulated as an insurer under the Insurance Act. However, the Insurance Act regulates the insurance and reinsurance business of our Bermuda-licensed operating insurance companies. RenaissanceRe's Bermuda-licensed operating insurance subsidiaries and joint ventures include Renaissance Reinsurance and DaVinci, which are registered as Class 4 general business insurers, RenaissanceRe Specialty U.S., Vermeer and RenaissanceRe Europe AG, Bermuda Branch ("RREAG, Bermuda Branch"), which are registered as Class 3B general business insurers, Top Layer Re, which is registered as a Class 3A general business insurer under the Insurance Act, and Shima Reinsurance Ltd., which is registered as a Class 3 general business insurer under the Insurance Act. RenaissanceRe also has operating subsidiaries registered as SPIs under the Insurance Act, including Upsilon RFO. RUM and RenaissanceRe Underwriting Management Ltd. are each registered as insurance managers under the Insurance Act. From time to time, RenaissanceRe's Bermuda-licensed operating insurance subsidiaries, branches, joint ventures and managed funds may apply for, and be granted, certain modifications to, or exemptions from, regulatory requirements which may otherwise apply to them.

The Insurance Act imposes solvency and liquidity standards as well as auditing and reporting requirements and confers on the Bermuda Monetary Authority (the "BMA") powers to supervise, investigate and intervene in the affairs of insurance companies.

The European Parliament recognizes Bermuda's regulatory regime as achieving Solvency II equivalence for its commercial (re)insurers. Equivalence between Bermuda's regulatory regime and the U.K.'s prudential regime has been automatically maintained following the expiry of the U.K.'s transition period for leaving the EU on January 1, 2021.

General Purpose Financial Statements. All Class 3, Class 3A, Class 3B and Class 4 general business insurers must prepare annual financial statements in respect of their insurance business in accordance with GAAP, International Financial Reporting Standards ("IFRS") or other acceptable accounting standards, which are published on the BMA website. Accordingly, audited annual financial statements prepared in

accordance with GAAP for each of Renaissance Reinsurance, RenaissanceRe Specialty U.S., DaVinci, Top Layer Re, Vermeer and RREAG, Bermuda Branch must be filed with the BMA prior to April 30 of each year and are available free of charge on the BMA's website.

Statutory Financial Statements. Each Class 3, Class 3A, Class 3B and Class 4 general business insurer is generally required to submit annual statutory financial statements to the BMA as part of its annual statutory financial return no later than four months after the insurer's financial year end (unless specifically extended). The GAAP or IFRS financial statements are the basis on which statutory financial statements are prepared, subject to the application of certain prudential filters as outlined in the Insurance Accounts Rules 2016. The statutory financial statements contain statements both on a consolidated and unconsolidated basis. The unconsolidated information forms the basis for assessing the insurer's liquidity position, minimum solvency margin and class of registration.

Capital and Solvency Return. Class 3A, 3B and Class 4 general business insurers are also required to file, on an annual basis, a capital and solvency return in respect of their general business, which currently includes, among other items, a statutory economic balance sheet ("EBS"), a schedule of risk management, a catastrophe risk return, a schedule of loss triangles or reconciliation of net loss reserves (where applicable), a schedule of eligible capital and the Enhanced Capital Requirement ("ECR") as calculated by the Bermuda Solvency and Capital Requirement ("BSCR") model (or an approved internal model). The BSCR is a mathematical model designed to give the BMA robust methods for determining an insurer's capital adequacy. Underlying the BSCR is the belief that all insurers should operate on an ongoing basis with a view to maintaining their capital at a prudent level in excess of the minimum solvency margin otherwise prescribed under the Insurance Act. The consolidated information within the statutory financial statements form the starting basis for the preparation of the EBS. The EBS is, in turn, used as the basis to calculate the insurer's ECR for the relevant year. The 2020 BSCR must be filed with the BMA before April 30, 2021; at this time, we believe each company that is required to file will exceed the minimum amount required to be maintained under Bermuda law.

Financial Condition Report. Class 3A, 3B and Class 4 insurers and insurance groups are required to prepare and publish a financial condition report ("FCR"), which provides, among other things, details of measures governing the business operations, corporate governance framework and solvency and financial performance of the insurer/insurance group. We received approval from the BMA to file a consolidated group FCR, inclusive of DaVinci, Renaissance Reinsurance, RenaissanceRe Specialty U.S., Top Layer Re and Vermeer. In addition, we received approval from the BMA to file an FCR for RREAG, in lieu of a standalone FCR for RREAG, Bermuda Branch. Our most recent FCRs were filed with the BMA prior to the June 30, 2020 deadline, and are available on our website.

Minimum Solvency Margin. A general business insurer's statutory assets must exceed its statutory liabilities by an amount, equal to or greater than the prescribed minimum solvency margin, which varies with the category of its registration. The minimum solvency margin that must be maintained by a Class 4 insurer is the greater of (i) \$100.0 million, (ii) 50% of net premiums written (with a credit for reinsurance ceded not exceeding 25% of gross premiums), (iii) 15% of net aggregate loss and loss expense provisions and other insurance reserves, or (iv) 25% of the ECR, which is established by reference to the BSCR model. The minimum solvency margin for a Class 3 insurer is the greater of (i) \$1.0 million, (ii) 20% of the first \$6.0 million of net premiums written; if in excess of \$6.0 million, the figure is \$1.2 million plus 15% of net premiums written in excess of \$6.0 million, or (iii) 15% of net aggregate loss and loss expense provisions and other insurance reserves. The minimum solvency margin for a Class 3A or Class 3B insurer is the greater of (i) \$1.0 million, (ii) 20% of the first \$6.0 million of net premiums written; if in excess of \$6.0 million, the figure is \$1.2 million plus 15% of net premiums written in excess of \$6.0 million, (iii) 15% of net aggregate loss and loss expense provisions and other insurance reserves, or (iv) 25% of the insurer's ECR for the relevant year.

Enhanced Capital Requirement. Each Class 3A, Class 3B and Class 4 insurer is required to maintain its available statutory economic capital and surplus at a level at least equal to its ECR which is established by reference to either the BSCR or an approved internal capital model. In either case, the ECR shall at all times equal or exceed the respective Class 3A, Class 3B and Class 4 insurer's minimum solvency margin and may be adjusted in circumstances where the BMA concludes that the insurer's risk profile deviates significantly from the assumptions underlying its ECR or the insurer's assessment of its risk management policies and practices used to calculate the ECR applicable to it. While not specifically referred to in the

Insurance Act, the BMA has also established a target capital level for each Class 3A, Class 3B and Class 4 insurer equal to 120% of the respective ECR. While a Class 3A, Class 3B and Class 4 insurer is not currently required to maintain its statutory economic capital and surplus at this level, the target capital level serves as an early warning tool for the BMA and failure to maintain statutory capital at least equal to the target capital level will likely result in increased BMA regulatory oversight.

Minimum Liquidity Ratio. An insurer engaged in general business is required to maintain a minimum liquidity ratio equal to the value of its relevant assets at not less than 75% of the amount of its relevant liabilities.

Eligible Capital. To enable the BMA to better assess the quality of an insurer's capital resources, Class 3A, Class 3B and Class 4 insurers must maintain available capital in accordance with a "three tiered capital system." All capital instruments are classified as either basic or ancillary capital, which in turn are classified into one of three tiers (Tier 1, Tier 2 and Tier 3) based on their "loss absorbency" characteristics. Eligibility limits are then applied to each tier in determining the amounts eligible to cover regulatory capital requirement levels. The highest capital is classified as Tier 1 capital and lesser quality capital is classified as either Tier 2 capital or Tier 3 capital. Under this regime, not more than certain specified percentages of Tier 1, Tier 2 and Tier 3 capital may be used to satisfy the Class 3A, 3B and 4 insurers' minimum solvency margin, ECR requirements and target capital level.

Restrictions on Dividends, Distributions and Reductions of Capital. Class 3, Class 3A, Class 3B and Class 4 insurers are prohibited from declaring or paying any dividends if in breach of the required minimum solvency margin or minimum liquidity ratio (the "Relevant Margins") or if the declaration or payment of such dividend would cause the insurer to fail to meet the Relevant Margins. Further, Class 3A, 3B and Class 4 insurers are prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet) unless it files (at least seven days before payment of such dividends) with the BMA an affidavit stating that it will continue to meet its Relevant Margins. Class 3, Class 3A, Class 3B and Class 4 insurers must obtain the BMA's prior approval for a reduction by 15% or more of the total statutory capital as set forth in its previous year's financial statements. These restrictions on declaring or paying dividends and distributions under the Insurance Act are in addition to the solvency requirements under the Companies Act 1981 which apply to all Bermuda companies.

Fit and Proper Controllers. The BMA maintains supervision over the controllers (as defined herein) of all Bermuda registered insurers. For so long as shares of RenaissanceRe are listed on the New York Stock Exchange ("NYSE") or another recognized stock exchange, the Insurance Act requires that the BMA be notified in writing within 45 days of any person becoming, or ceasing to be, a controller. A controller includes the managing director or chief executive of the registered insurer or its parent company; a 10%, 20%, 33% or 50% shareholder controller; and any person in accordance with whose directions or instructions the directors of the registered insurer or of its parent company are accustomed to act. In addition, all Bermuda insurers are also required to give the BMA written notice of the fact that a person has become, or ceased to be, a controller or officer of the registered insurer within 45 days of becoming aware of such fact. An officer in relation to a registered insurer includes a director, secretary, chief executive or senior executive performing the duties of underwriting, actuarial, risk management, compliance, internal audit, finance or investment matters by whatever name called.

Material Change. All registered insurers are required to give the BMA 30 days' notice of their intention to effect a material change within the meaning of the Insurance Act, and shall not take any steps to give effect to a material change unless, before the end of notice period unless they have been notified by the BMA in writing that it has no objection to such change or the period has lapsed without the BMA issuing a notice of objection.

Insurance Code of Conduct. All Bermuda insurers are required to comply with the BMA's Insurance Code of Conduct, which establishes duties, requirements and standards to be complied with to ensure each insurer implements sound corporate governance, risk management and internal controls. Failure to comply with these requirements will be a factor taken into account by the BMA in determining whether an insurer is conducting its business in a sound and prudent manner under the Insurance Act and in calculating the operational risk charge applicable in accordance with the insurer's BSCR model (or an approved internal model).

Special Purpose Insurer Reporting Requirements. Unlike other (re)insurers, SPIs are fully funded to meet their (re)insurance obligations; therefore the application and supervision processes are streamlined to facilitate the transparent structure. Further, the BMA has the discretion to modify such insurer's accounting requirements under the Insurance Act. Like other (re)insurers, the principal representative of an SPI has a duty to inform the BMA in relation to solvency matters, where applicable. SPIs are generally required to prepare audited financial statements in accordance with GAAP or other standards recognized by the BMA, as well as annual statutory financial statements, and file these statements with the BMA together with a statutory financial return, which includes information around ownership structure, assessment of risks, analyses of premium, details of segregated cells, a solvency certificate, and other information.

Insurance Manager Reporting Requirements. The BMA's Insurance Manager Code of Conduct requires insurance managers to file an Insurance Manager's Return, which requires, among other things, details around directors and officers of the insurance manager, the services provided by the entity, and details of the insurers managed by the insurance manager. Additionally, under the Insurance Act, insurance managers are required to notify the BMA of certain events, such as a failure to comply with a condition imposed upon it by the BMA or the occurrence of a cyber reporting event.

Group Supervision. Pursuant to the Insurance Act, the BMA acts as the group supervisor of the RenaissanceRe group of companies (the "RenaissanceRe Group") and it has designated Renaissance Reinsurance to be the "designated insurer" in respect of the RenaissanceRe Group. The designated insurer is required to ensure that the RenaissanceRe Group complies with the provisions of the Insurance Act pertaining to groups and all related group solvency and group supervision rules. Under these rules, the RenaissanceRe Group is required to annually prepare and submit to the BMA group GAAP financial statements, group statutory financial statements, a group capital and solvency return (including an EBS) and an FCR. An insurance group must ensure that the value of the insurance group's assets exceeds the amount of the insurance group's liabilities by the aggregate of: (i) the individual minimum solvency margin of each qualifying member of the group controlled by the parent company; and (ii) the parent company's percentage shareholding in the member multiplied by the member's minimum solvency margin, where the parent company exercises significant influence over a member of the group but does not control the member (the "Group Minimum Solvency Margin"). A member is a qualified member of the insurance group if it is subject to solvency requirements in the jurisdiction in which it is registered. Every insurance group is also required to submit an annual group actuarial opinion when filing its group capital and solvency return. The group is required to appoint an individual approved by the BMA to be the group actuary. The group actuary must provide an opinion on the RenaissanceRe Group's technical provisions as recorded in the RenaissanceRe Group statutory EBS. Insurance groups are required to maintain available statutory economic capital and surplus to an amount that is equal to or exceeds the value of its group ECR, which is calculated at the end of its relevant year by reference to the BSCR model of the group (the "Group BSCR") (or an approved internal capital model) provided that the group ECR shall at all times be an amount equal to or exceeding the Group Minimum Solvency Margin. The BMA expects insurance groups to operate at or above a group target capital level, which exceeds the group ECR. The target capital level for insurance groups is set at 120% of its group ECR. In addition, under the tiered capital requirements described above, not more than certain specified percentages of Tier 1, Tier 2 and Tier 3 capital may be used by an insurance group to satisfy the Group Minimum Solvency Margin and group ECR requirements. We are currently completing our 2020 Group BSCR, which must be filed with the BMA on or before May 31, 2021, and at this time, we believe we will exceed the target level of required economic statutory capital. Our 2019 Group BSCR exceeded the target level of required statutory capital. Further, our Board of Directors has established solvency self assessment procedures for the RenaissanceRe Group that factor in foreseeable material risks; Renaissance Reinsurance must ensure that the RenaissanceRe Group's assets exceed the amount of the RenaissanceRe Group's liabilities by the aggregate minimum margin of solvency of each qualifying member; and our Board of Directors has established and implements corporate governance policies and procedures designed to ensure they support the overall organizational strategy of the RenaissanceRe Group. In addition, the RenaissanceRe Group is required to prepare and submit to the BMA a quarterly financial return comprising unaudited consolidated group financial statements, a schedule of intra-group transactions and a schedule of risk concentrations.

The BMA has certain powers of investigation and intervention relating to insurers and their holding companies, subsidiaries and other affiliates, which it may exercise in the interest of such insurer's

policyholders or if there is any risk of insolvency or of a breach of the Insurance Act or the insurer's license conditions. The BMA may cancel an insurer's registration on certain grounds specified in the Insurance Act.

Under the provisions of the Insurance Act, the BMA may, from time to time, conduct "on site" visits at the offices of insurers it regulates. Over the past several years, the BMA has conducted "on site" reviews in respect of our Bermuda-domiciled operating insurers.

Economic Substance Act. In December 2018, the Economic Substance Act 2018, as amended (the "ESA") came into effect in Bermuda. Under the provisions of the ESA, every Bermuda registered entity engaged in a "relevant activity" must satisfy economic substance requirements by maintaining a substantial economic presence in Bermuda. Under the ESA, insurance or holding entity activities (both as defined in the ESA and Economic Substance Regulations 2018, as amended) are relevant activities. Pursuant to the ESA, certain of our entities registered in Bermuda, are required to demonstrate compliance with economic substance requirements by filing an annual economic substance declaration with the Registrar of Companies in Bermuda. Any entity that fails to satisfy economic substance requirements could face automatic disclosure to competent authorities in the EU of the information filed by the entity with the Registrar of Companies in connection with the economic substance requirements and may also face financial penalties, restriction or regulation of its business activities and/or may be struck off as a registered entity in Bermuda.

Income Taxes. Currently, neither we nor our shareholders are required to pay Bermuda income or profits tax, withholding tax, capital gains tax, capital transfer tax, estate duty or inheritance tax in respect of our shares. We have obtained an assurance from the Minister of Finance of Bermuda under the Exempted Undertakings Tax Protection Act 1966 that, if Bermuda enacts legislation imposing any tax on profits, income, capital asset, gain or appreciation or any tax in the nature of estate duty or inheritance tax, such tax shall not be applicable to us, our operations or our shares, debentures or other obligations until March 31, 2035, except insofar as such tax applies to persons ordinarily resident in Bermuda or is payable by us in respect of real property owned or leased by us in Bermuda.

Policyholder Priority. As of January 1, 2019, 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. The amendments provide, among other things, that, subject to the prior payment of preferential debts under the Employment Act 2000 and the Companies Act 1981, the insurance debts of an insurer must be paid in priority to all other unsecured debts of the insurer.

Investment Fund Regulation. Medici, Upsilon Fund and RenaissanceRe Upsilon Co-Invest Fund Ltd. are registered or regulated by the BMA pursuant to the Bermuda Investment Funds Act 2006, as amended from time to time (the "IFA").

The purpose of the IFA is to set standards and criteria applicable to the establishment and operation of investment funds as defined in section 2 of the IFA in Bermuda, with a view to protecting the interests of investors. Under the Bermuda Monetary Authority Act 1969, the BMA is responsible for supervising, regulating and inspecting any financial institution which operates in Bermuda, including investment funds. The BMA has general powers to supervise, investigate and intervene in the affairs of investment funds registered with it under the IFA and requires each fund registered under the IFA to certify on an annual basis that the fund has complied with the IFA.

The BMA has also issued the Investment Fund Offering Document Rules 2019 and Investment Fund Rules 2019, both effective January 1, 2020. The Offering Document Rules provide that an offering document for every registered or authorized fund be submitted to the BMA for approval and set forth certain minimum content requirements for offering documents. The Investment Fund Rules set forth obligations of funds with respect to service providers, depositary functions, safekeeping obligations, valuations, and reporting to investors and the public, among other requirements.

U.S. Regulation

Admitted Company Regulation. Renaissance Reinsurance U.S. is a Maryland-domiciled insurer licensed in 26 states and the District of Columbia and qualified or certified as a reinsurer in an additional 24 states. As a U.S. licensed and authorized insurer, Renaissance Reinsurance U.S. is subject to considerable regulation and supervision by state insurance regulators. The extent of regulation varies but generally has its source in statutes that delegate regulatory, supervisory and administrative authority to a department of insurance in

each state. Among other things, state insurance departments regulate insurer solvency, authorized investments, loss and loss adjustment expense and unearned premium reserves, and deposits of securities for the benefit of policyholders. State insurance departments also conduct periodic examinations of the affairs of authorized insurance companies and require the filing of annual and other reports relating to the financial condition of companies and other matters. The Maryland Insurance Administration, as Renaissance Reinsurance U.S.'s domestic regulator, is the primary financial regulator of Renaissance Reinsurance U.S.

Holding Company Regulation. We are subject to the insurance holding company laws of Maryland, the domestic state of Renaissance Reinsurance U.S. These laws generally require Renaissance Reinsurance U.S. to file certain reports concerning its capital structure, ownership, financial condition and general business operations with the Maryland Insurance Administration. Generally, all affiliate transactions involving Renaissance Reinsurance U.S. must be fair and, if material or of specified types, require prior notice and approval or non-disapproval by the Maryland Insurance Administration. Further, Maryland law places limitations on the amounts of dividends or distributions payable by Renaissance Reinsurance U.S. Payment of ordinary dividends by Renaissance Reinsurance U.S. requires notice to the Maryland Insurance Administration. Declaration of an extraordinary dividend, which must be paid out of earned surplus, generally requires thirty days' prior notice to and approval or non-disapproval of the Maryland Insurance Administration. An extraordinary dividend includes any dividend whose fair market value together with that of other dividends or distributions made within the preceding twelve months exceeds the lesser of (1) ten percent of the insurer's surplus as regards policyholders as of December 31 of the preceding year or (2) the insurer's net investment income, excluding realized capital gains (as determined under statutory accounting principles), for the twelve month period ending December 31 of the preceding year and pro rata distributions of any class of the insurer's own securities, plus any amounts of net investment income (subject to the foregoing exclusions), in the three calendar years prior to the preceding year which have not been distributed.

Maryland law also requires any person seeking to acquire control of a Maryland-domestic insurer or of an entity that directly or indirectly controls a Maryland-domestic insurer, including its holding company, to file a statement with the Maryland Insurance Administration at least 60 days before the proposed acquisition of control. The transaction seeking to acquire control cannot be made unless, within 60 days after the statement is filed with the Maryland Insurance Administration, or within any extension of that period, the Maryland Insurance Administration approves, or does not disapprove, the transaction. Any purchaser of 10% or more of the outstanding voting securities of an insurance company, its holding company or any other entity directly or indirectly controlling the insurance company is presumed to have acquired control, unless the presumption is rebutted. Therefore, any investor who intends to acquire 10% or more of RenaissanceRe's outstanding voting securities may need to comply with these laws and would be required to file statements and reports with the Maryland Insurance Administration before such acquisition.

Maryland has adopted enterprise risk management and reporting obligations applicable to insurance holding company systems that are meant to protect the licensed companies from enterprise risk. These obligations include requiring an annual enterprise risk report by the ultimate controlling person identifying the material risks within the insurance holding company system that could pose enterprise risk to the U.S. licensed companies.

Effective January 1, 2018, Maryland adopted the Risk Management and Own Risk Solvency Assessment Act (the "RMORSA Act") based on the National Association of Insurance Commissioners (the "NAIC") Own Risk Solvency Assessment Model Act. The RMORSA Act requires Renaissance Reinsurance U.S. to: (i) maintain a risk management framework for identifying, assessing, monitoring, managing, and reporting its material and relevant risks; (ii) complete an Own Risk Solvency Assessment ("ORSA") at least once each year and at any time there is a significant change to the risk profile of Renaissance Reinsurance U.S. or its holding company system; and (iii) submit an ORSA summary report to the Maryland Insurance Administration at least once each year. The obligation to maintain a risk management framework may be satisfied if the RenaissanceRe Group maintains a risk management framework that applies to the operations of Renaissance Reinsurance U.S. and the ORSA obligation may be satisfied if the RenaissanceRe Group completes an ORSA in accordance with the requirements of the RMORSA Act.

Renaissance Reinsurance U.S. is required to meet certain minimum statutory capital and surplus requirements under Maryland law. At December 31, 2020, we believe that Renaissance Reinsurance U.S. exceeded the minimum required statutory capital and surplus.

Renaissance Reinsurance U.S. is also subject to risk-based capital (“RBC”) requirements under Maryland law. Each year, Renaissance Reinsurance U.S. must file with the Maryland Insurance Administration a report of its RBC levels as of the end of the immediately preceding calendar year. If the report shows Renaissance Reinsurance U.S.’s statutory capital and surplus and any other items provided in the NAIC’s RBC instructions (“total adjusted capital”) are below certain levels, Renaissance Reinsurance U.S. may be required to take certain corrective action or the Maryland Insurance Administration may be permitted or required to take certain regulatory action. As of December 31, 2020, we believe Renaissance Reinsurance U.S.’s total adjusted capital exceeded the company action level and regulatory action level thresholds.

Regulation of RREAG, US Branch. RREAG, US Branch is a United States branch of RREAG whose port of entry is New York. RREAG, US Branch is licensed in two states, New York and Kansas, and it is an accredited reinsurer in 48 states, and the District of Columbia. The NYDFS is RREAG, US Branch’s domestic insurance regulator in the U.S. As a New York regulated insurer, RREAG, US Branch is subject to New York’s holding company laws as well as laws pertaining to solvency, authorized investments, deposits of securities for the benefit of policyholders and cybersecurity. The NYDFS may conduct periodic examinations of RREAG, US Branch’s affairs and it requires the filing of annual and other reports relating to RREAG, US Branch’s financial condition.

RREAG, US Branch is required to meet certain trustee surplus requirements under New York law. At December 31, 2020, we believe that RREAG, US Branch’s trustee surplus exceeded the minimum required statutory level.

Each year, RREAG, US Branch must file with the NYDFS a report of its RBC levels as of the end of the immediately preceding calendar year. If the report shows RREAG, US Branch’s total adjusted capital is below certain levels, RREAG, US Branch may be required to take certain corrective action or the NYDFS may be permitted or required to take certain regulatory action. As of December 31, 2020, we believe RREAG, US Branch’s total adjusted capital exceeded the company action level and regulatory action level thresholds. RREAG, US Branch does not pay ordinary dividends and would need approval from the NYDFS for any return of capital to RREAG.

Run-off of RREAG, US Branch. In and subsequent to August 2019, we made certain filings with the New York and Maryland state insurance regulators in contemplation of a run-off of RREAG, US Branch. Following receipt of applicable regulatory approvals, the U.S. casualty portfolio was transferred to Renaissance Reinsurance U.S. through a loss portfolio transfer retrocession agreement effective as of October 1, 2019, while the remaining property and specialty business portfolio of RREAG, US Branch will be run-off until all liabilities are extinguished through novation, commutation or expiration, subject to applicable ceding company consent. We expect that the run-off of RREAG, US Branch will not be complete for several years.

Reinsurance Regulation. The insurance laws of each U.S. state regulate the sale of reinsurance to licensed ceding insurers by non-admitted alien reinsurers acting from locations outside the state. With some exceptions, the sale of insurance within a jurisdiction where the insurer is not admitted to do business is prohibited. Our Bermuda-domiciled insurance operations and joint ventures (principally Renaissance Reinsurance, DaVinci, Top Layer Re, RenaissanceRe Specialty U.S., Upsilon RFO and Vermeer) are all admitted to transact insurance business in Bermuda and do not maintain an office or solicit, advertise, settle claims or conduct other insurance activities in any other jurisdiction where the conduct of such activities would require that any company be so admitted.

RenaissanceRe Underwriting Managers U.S. LLC is licensed by the Connecticut Department of Insurance as a reinsurance intermediary broker and is required to maintain its reinsurance intermediary broker license in force in order to conduct its reinsurance operations in Connecticut.

Although reinsurance contract terms and rates are generally not subject to regulation by state insurance authorities, a primary U.S. insurer ordinarily will enter into a reinsurance agreement only if it can obtain credit on its statutory financial statements for the reinsurance ceded. State insurance regulators permit U.S. ceding insurers to take credit for reinsurance ceded to non-admitted, non-U.S. (alien) reinsurers if the reinsurance contract contains certain minimum provisions and if the reinsurance obligations of the non-U.S.

reinsurer are appropriately collateralized. Qualifying collateral may be established by an alien reinsurer exclusively for a single U.S. ceding company. Alternatively, an alien reinsurer that is accredited by a state may establish a multi-beneficiary trust with qualifying assets equal to its reinsurance obligations to all U.S. ceding insurers, plus a trustee surplus amount. Renaissance Reinsurance and DaVinci are each an accredited reinsurer and have established multi-beneficiary trusts with a qualifying financial institution in New York for the benefit of their U.S. cedants. In 2020, RREAG was approved to establish a multi-beneficiary trust which we expect will become effective in the first quarter of 2021.

States generally require non-admitted alien reinsurers to provide collateral equal to one hundred percent of their reinsurance obligations to U.S. ceding insurers in order for the U.S. ceding insurers to obtain full credit for reinsurance. However, most states have adopted credit for reinsurance laws and regulations based on NAIC model law and regulation amendments that permit U.S. ceding insurers to take full credit for reinsurance when a “certified” reinsurer posts reduced collateral amounts. U.S. states are required to adopt the NAIC model law and regulation amendments permitting reduced collateral for certified reinsurers as an NAIC accreditation requirement. Under these credit for reinsurance laws and regulations, qualifying alien reinsurers may reduce their collateral for future reinsurance agreements based on a secure rating assigned by the U.S. insurance regulator. The secure rating is assigned by the state upon an assessment of the reinsurer’s financial condition, financial strength ratings and other factors. In addition, the alien reinsurer must be domiciled in a jurisdiction that is “qualified” under state law. The NAIC granted conditional qualified jurisdiction status to Bermuda and Switzerland effective January 1, 2014, and approved Bermuda and Switzerland as qualified jurisdictions effective January 1, 2015 for a five-year period. In December 2019, the NAIC voted to re-qualify Bermuda as a qualified jurisdiction effective January 1, 2020. Each of Renaissance Reinsurance, RenaissanceRe Specialty U.S., DaVinci and RREAG has been approved as a “certified reinsurer” eligible for collateral reduction in various states.

Effective January 1, 2020, Bermuda and Switzerland were awarded “reciprocal jurisdiction” status by the NAIC. Once states have enacted legislation and produced regulations to recognize and effectuate Bermuda’s and Switzerland’s reciprocal jurisdiction status, (re)insurers domiciled in those countries will be eligible (on a state by state basis) to qualify for zero collateral relief, and thereby operate under standards equivalent to reinsurers domiciled in the UK and EU. As noted below, UK and EU-domiciled reinsurers will be subject to the provisions of the US-UK Covered Agreement and US-EU Covered Agreement, respectively (defined below) that require states to remove reinsurance collateral requirements for qualifying UK or EU reinsurers as of the US-UK Covered Agreement’s or US-EU Covered Agreement’s implementation date.

NAIC Ratios. The NAIC has established 13 financial ratios to assist state insurance departments in their oversight of the financial condition of licensed property and casualty insurance companies operating in their respective states. The NAIC’s Insurance Regulatory Information System calculates these ratios based on information submitted by insurers on an annual basis and shares the information with the applicable state insurance departments. Each ratio has an established “usual range” of results and assists state insurance departments in executing their statutory mandate to oversee the financial condition of insurance companies. A ratio result falling outside the usual range of such ratios is not considered a failing result; rather unusual values are viewed as part of the regulatory early monitoring system. Furthermore, in some years, it may not be unusual for financially sound companies to have several ratios with results outside the usual ranges. An insurance company may fall outside of the usual range for one or more ratios because of specific transactions that are themselves immaterial.

Federal Oversight and Other Government Intervention. Government intervention in the insurance and reinsurance markets in the U.S. continues to evolve. Although U.S. state regulation is currently the primary form of regulation of insurance and reinsurance, Congress has considered proposals in several areas that may impact the industry, including the creation of an optional federal charter and repeal of the insurance company antitrust exemption from the McCarran Ferguson Act. We are unable to predict what other proposals will be made or adopted or the effect, if any, that such proposals would have on our operations and financial condition.

The Dodd-Frank Act established federal measures that impact the U.S. insurance business and preempt certain state insurance laws. For example, the Dodd-Frank Act created the Financial Stability Oversight Council (the “FSOC”), which is authorized to designate a non-bank financial company as “systemically important financial institution” (each a “non-bank SIFI”) if its material financial distress could threaten the

financial stability of the U.S. As of December 31, 2020, there were no non-bank SIFIs designated by the FSOC. In March 2019, in response to U.S. Department of the Treasury (the “U.S. Treasury”) recommendations, the FSOC issued for public comment proposed guidance related to a revised process for designating non-bank SIFIs, which substantially changes the FSOC’s existing procedures by emphasizing an activities-based approach, and moving away from the existing entities-based approach. The FSOC’s adoption of this revised approach to identifying systemic risk or a determination that we or our counterparties are non-bank SIFIs could affect our insurance and reinsurance operations.

The Dodd-Frank Act also created the Federal Insurance Office (“FIO”). The FIO does not have general supervisory or regulatory authority over the business of insurance, but it has preemption authority over state insurance laws that conflict with certain international agreements. The FIO is also authorized to monitor the U.S. insurance industry and identify potential regulatory gaps that could contribute to systemic risk and may recommend to the FSOC the designation of systemically important insurers. In addition, the FIO represents the U.S. at the International Association of Insurance Supervisors.

The Dodd-Frank Act authorizes the U.S. Treasury and the Office of the U.S. Trade Representative to enter into international agreements of mutual recognition regarding the prudential regulation of insurance or reinsurance (“covered agreements”). The U.S. and EU entered into a bilateral agreement regarding the prudential regulation of insurance and reinsurance (the “US-EU Covered Agreement”) in 2017. Each party has been working to complete its internal requirements and procedures (such as amending or promulgating appropriate statutes and regulations) in order to satisfy the US-EU Covered Agreement’s substantive and timing requirements. For instance, in June 2019, the NAIC adopted revisions to the Amended Credit for Reinsurance Model Act and Model Regulation (the “2019 Credit for Reinsurance Amendment”).

The US-EU Covered Agreement addresses three areas of prudential insurance and reinsurance supervision: reinsurance, group supervision and the exchange of information between the U.S. and EU. Under the US-EU Covered Agreement, reinsurance collateral requirements will no longer apply to qualifying EU reinsurers that sell reinsurance to the U.S. market, and U.S. reinsurers operating in the EU market will no longer be subject to “local presence” requirements. The US-EU Covered Agreement also establishes group supervision practices that apply only to U.S. and EU insurance groups operating in both territories. For instance, the US-EU Covered Agreement provides that U.S. insurance groups with operations in the EU will be supervised at the worldwide level only by U.S. insurance regulators, and precludes EU insurance supervisors from exercising solvency and capital requirements over the worldwide operations of U.S. insurers.

The US-EU Covered Agreement may preempt an inconsistent state law that treats a qualified non-U.S. reinsurer less favorably than a U.S. insurer licensed in that state. The FIO is required under the US-EU Covered Agreement to commence this preemption analysis in April 2021 and to complete this analysis in September 2022. This effectively means that each U.S. state will need to enact the 2019 Credit for Reinsurance Amendments by September 2022, or face possible federal preemption of those provisions in its credit for reinsurance laws that are inconsistent with the US-EU Covered Agreement.

See “Part I, Item 1A. Risk Factors” for further information regarding recent legislative and regulatory proposals and the potential effects on our business and results of operations.

U.K. Regulation

Lloyd’s Regulation

General. The operations of RenaissanceRe Syndicate Management Ltd. (“RSML”) are subject to oversight by Lloyd’s, substantially effected through the Lloyd’s Council. RSML’s business plan for Syndicate 1458, including maximum underwriting capacity, requires annual approval by Lloyd’s. Lloyd’s may require changes to any business plan presented to it or additional capital to be provided to support the underwriting plan. Lloyd’s also imposes various charges and assessments on its members. We have deposited certain assets with Lloyd’s to support RenaissanceRe Corporate Capital (UK) Limited’s (“RenaissanceRe CCL”) underwriting business at Lloyd’s. Dividends from a Lloyd’s managing agent and a Lloyd’s corporate member can be declared and paid provided the relevant company has sufficient profits available for distribution.

By entering into a membership agreement with Lloyd's, RenaissanceRe CCL has undertaken to comply with all Lloyd's bye-laws and regulations as well as the provisions of the Lloyd's Acts and the Financial Services and Markets Act 2000, as amended by the Financial Services Act 2012 (the "FSMA").

Capital Requirements. The underwriting capacity of a member of Lloyd's must be supported by providing a deposit (referred to as "Funds at Lloyd's" or "FAL") in the form of cash, securities or letters of credit in an amount determined under the capital adequacy regime of the U.K.'s Prudential Regulation Authority (the "PRA"). The amount of such deposit is calculated for each member through the completion of an annual capital adequacy exercise. Under these requirements, Lloyd's must demonstrate that each member has sufficient assets to meet its underwriting liabilities plus a required solvency margin. The amount of FAL for Syndicate 1458 is determined by Lloyd's and is based on Syndicate 1458's solvency and capital requirement as calculated through its internal model. In addition, if the FAL are not sufficient to cover all losses, the Lloyd's Central Fund provides an additional level of security for policyholders.

Restrictions. A Reinsurance to Close ("RITC") generally is put in place after the third year of operations of a syndicate year of account. On successful conclusion of a RITC, any profit from the syndicate's operations for that year of account can be remitted by the managing agent to the syndicate's members. If the syndicate's managing agency concludes that an appropriate RITC cannot be determined or negotiated on commercially acceptable terms in respect of a particular underwriting year, it must determine that the underwriting year remain open and be placed into run-off. During this period, there cannot be a release of the Funds at Lloyd's of a member of that syndicate without the consent of Lloyd's.

The financial security of the Lloyd's market as a whole is regularly assessed by three independent rating agencies (A.M. Best, S&P and Fitch). Syndicates at Lloyd's take their financial security rating from the rating of the Lloyd's Market. A satisfactory credit rating issued by an accredited rating agency is necessary for Lloyd's syndicates to be able to trade in certain classes of business at current levels. RSML and RenaissanceRe CCL would be adversely affected if Lloyd's current ratings were downgraded.

Intervention Powers. The Lloyd's Council has wide discretionary powers to regulate members' underwriting at Lloyd's. It may, for instance, withdraw a member's permission to underwrite business or to underwrite a particular class of business. The Lloyd's Council may change the basis on which syndicate expenses are allocated or vary the Funds at Lloyd's requirements or the investment criteria applicable to the provision of Funds at Lloyd's. Exercising any of these powers might affect the return on the corporate member's participation in a given underwriting year. If a member of Lloyd's is unable to pay its debts to policyholders, the member may obtain financial assistance from the Lloyd's Central Fund, which in many respects acts as an equivalent to a state guaranty fund in the U.S. If Lloyd's determines that the Central Fund needs to be increased, it has the power to assess premium levies on current Lloyd's members. The Lloyd's Council has discretion to call or assess up to 3% of a member's underwriting capacity in any one year as a Central Fund contribution.

While not currently material to our operations, Syndicate 1458 also accesses insurance business from the European Economic Area through the Lloyd's Brussels Subsidiary. The Lloyd's Brussels Subsidiary is authorized and regulated by the National Bank of Belgium and regulated by the Financial Services and Markets Authority.

PRA and FCA Regulation

The PRA currently has ultimate responsibility for the prudential supervision of financial services in the U.K. The Financial Conduct Authority (the "FCA") has responsibility for market conduct regulation. As such, the PRA and the FCA regulate all financial services firms in the U.K. including the Lloyd's market, RSML and RenaissanceRe Europe AG, UK Branch ("RREAG, UK Branch"). Both the PRA and FCA have substantial powers of intervention in relation to regulated firms.

Lloyd's as a whole is authorized by the PRA and regulated by both the FCA and the PRA. Lloyd's is required to implement certain rules prescribed by the PRA and by the FCA; such rules are to be implemented by Lloyd's pursuant to its powers under the Lloyd's Act 1982 relating to the operation of the Lloyd's market. Lloyd's prescribes, in respect of its managing agents and corporate members, certain minimum standards relating to their management and control, solvency and various other requirements. If it appears to either the PRA or the FCA that either Lloyd's is not fulfilling its delegated regulatory

responsibilities or that managing agents are not complying with the applicable regulatory rules and guidance, the PRA or the FCA may intervene at their discretion.

Solvency II and the U.K.'s Domestic Prudential Regime

The European Parliament adopted Solvency II in April 2009 and it came into effect on January 1, 2016. Solvency II represents a risk-based approach to insurance regulation and capital adequacy. Its principal goals are to improve the correlation between capital and risk, effect group supervision of insurance and reinsurance affiliates, implement a uniform capital adequacy structure for (re)insurers across the EU Member States, establish consistent corporate governance standards for insurance and reinsurance companies, and establish transparency through standard reporting of insurance operations. Under Solvency II, an insurer's or reinsurer's capital adequacy in relation to various insurance and business risks may be measured with an internal model developed by the insurer or reinsurer and approved for use by the Member State's regulator or pursuant to a standard formula developed by the European Commission. Following the U.K.'s exit from the EU, and the expiry of the transition period on December 31, 2020, U.K. authorized insurers will be subject to the U.K.'s separate domestic prudential regime. This regime is identical to the Solvency II regime from January 1, 2021, although the two regimes may begin to diverge over time. The U.K. is currently undertaking a review of Solvency II and of the regulatory regime applicable to U.K. authorized insurers and reinsurers.

The PRA granted approval to Lloyd's internal model application in December 2015. Each year, the PRA requires Lloyd's to satisfy an annual solvency test which measures whether Lloyd's has sufficient assets in the aggregate to meet all outstanding liabilities of its members, both current and run-off. If Lloyd's fails this test, the PRA may require the entire Lloyd's market to cease underwriting or individual Lloyd's members may be required to cease or reduce their underwriting.

RREAG, UK Branch is authorized and regulated in the U.K. by the PRA and by the FCA. RREAG, UK Branch was therefore subject to the Solvency II regime, until January 1, 2021, at which point it became subject to the U.K.'s domestic prudential regime. However, notwithstanding these regulatory changes, RREAG, UK Branch is still not required, nor will it be required under the terms of the U.K.'s domestic prudential regime, to hold capital at the branch level. In light of this and related matters, the PRA granted various modifications and waivers to RREAG, UK Branch from its regulatory reporting requirements.

Change of Control

The PRA and the FCA currently regulate the acquisition of control of insurers, reinsurers and Lloyd's managing agents which are authorized under the FSMA. Any company or individual that, together with its or his associates, directly or indirectly acquires 10% or more of the shares in such an entity or its parent company, or is entitled to exercise or control the exercise of 10% or more of the voting power in such entity or its 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 entity or its parent company by virtue of their shareholding or voting power in either. A purchaser of 10% or more of RenaissanceRe's common shares or voting power would therefore be considered to have acquired control of RSML. Under the FSMA, any person or entity proposing to acquire control over an insurer, reinsurer or Lloyd's managing agent must give prior notification to the PRA and the FCA of their or the entity's intention to do so. The PRA and FCA would then have 60 working days to consider the application to acquire control. Failure to make the relevant prior application could result in action being taken against RSML by the PRA or the FCA or both of them. Lloyd's approval is also required before any person can acquire control (using the same definition as for the PRA and FCA) of a Lloyd's managing agent or Lloyd's corporate member.

Other Applicable Laws

Lloyd's worldwide insurance and reinsurance business is subject to various regulations, laws, treaties and other applicable policies of the EU, as well as of each nation, state and locality in which it operates. Material changes in governmental requirements and laws could have an adverse effect on Lloyd's and market participants, including RSML and RenaissanceRe CCL.

Switzerland Regulation

Swiss Group Affiliate Companies and Reinsurance Branches. RREAG, a company limited by shares with its registered seat in Zurich, Switzerland, is a reinsurance company licensed in class C1 and supervised by the Swiss Financial Market Supervisory Authority ("FINMA"). As such, RREAG must comply with Swiss insurance supervisory law (as applicable to reinsurers), including in particular the Insurance Supervisory Act ("ISA"), Insurance Supervisory Ordinance, FINMA ordinances and FINMA circulars. RREAG's accounts are prepared in accordance with the Swiss Code of Obligations, the Insurance Supervision Act and the Insurance Supervision Ordinance. RREAG maintains branch operations in Australia, Bermuda, U.K and the U.S., each in accordance with applicable local regulations.

Further, the group affiliates Renaissance Reinsurance and DaVinci each have a branch office registered with the commercial register of the Canton of Zurich, Switzerland; however, as these are reinsurance-only branch offices of a foreign reinsurer, they are not currently subject to the license and supervision requirements of FINMA.

The group affiliate RenaissanceRe Services of Switzerland AG, a company limited by shares with registered seat in Zurich, Switzerland, is a service company. Until December 31, 2019, it held a license granted by FINMA for the distribution of insurance-linked securities. This license type ceased to exist on January 1, 2020 as a result of the new the Swiss Federal Financial Institutions Act and the Swiss Federal Financial Services Act, which amended certain provisions of the Swiss collective investment schemes legislation. Thus, as of that date, RenaissanceRe Services of Switzerland AG has ceased to hold any FINMA license. However, RenaissanceRe Services of Switzerland AG has affiliated with a Swiss ombudsman's office and registered the relevant client advisors with a Swiss recognized client advisor register in accordance with the Swiss Federal Financial Services Act, which has enabled it to continue its distribution activities for insurance-linked securities.

Adequacy of Financial Resources. The minimum capital requirement for a Swiss reinsurance company under the ISA for reinsurance license class C1 is CHF 10 million.

Being a Swiss domiciled reinsurance company, RREAG must further maintain adequate solvency and provide for sufficient free and unencumbered capital in relation to its entire activities in accordance with the Swiss Solvency Test (the "SST"). The SST adopts a risk-based and total balance sheet approach whereby reinsurance companies are required to provide a market-consistent assessment of the value of their assets and liabilities. The solvency requirement is met if the available risk-bearing capital exceeds the required target capital. It is then assessed whether the identified available capital can meet the SST requirements and is sufficient to cover the company's obligations in less favorable scenarios. The European Commission recognized the SST as being of an equivalent standard to European law with an effective date of January 1, 2016. The SST is also automatically equivalent to the standards in the U.K.'s prudential regime following the expiry of the U.K.'s transition period for leaving the EU on January 1, 2021.

In addition, RREAG must establish sufficient technical reserves for its entire reinsurance business activities. RREAG also has to maintain an organizational fund to cover the costs of establishing and developing the business, and for an extraordinary business expansion. The organizational fund usually amounts to up to 50% of the minimum capital (as discussed above) at the start of business operations and subsequently should typically settle at an amount equivalent to around 20% of the minimum capital. The exact minimum amount is determined by FINMA in each individual case.

Reporting and Disclosure Requirements. RREAG has to submit an annual report (consisting of the annual financial statements and management report) and an annual supervisory report to FINMA by the end of June of the following year. In the course of the supervisory reporting to FINMA, RREAG has to annually disclose its financial condition report containing quantitative and qualitative information, in particular relating to business activities, business results, risk management, the risk profile and valuation principles and methods applied to provisions, capital management and solvency by the end of April of the following year.

Moreover, under the ISA, a reinsurance undertaking must be organized in a way that it can, in particular, identify, limit and monitor all material risks. In this context, RREAG must conduct a forward-looking self-assessment of their risk situation and capital requirements at least once a year, and a report on the ORSA must be submitted to FINMA no later than the end of January of the following year.

Further, a reinsurance undertaking must maintain and file with FINMA a regulatory business plan, including details on its organization, financials, qualified participants, management, oversight and control persons, responsible actuary, among other items. Any changes to the business plan must either be approved by FINMA prior to the implementation or be notified to FINMA, depending on the type of change.

Dividends and Distributions. RREAG may only distribute dividends out of its retained earnings or distributable reserves based on the audited annual accounts of the company. Any distribution of dividends remains subject to the approval of FINMA (as a change of the regulatory business plan) if they have a bearing on the solvency of the reinsurer and/or the interests of the insured. The solvency and capital requirements must still be met following any distribution. At December 31, 2020, we believe RREAG exceeded the minimum solvency and capital requirements required to be maintained under Swiss law. RREAG was required to prepare an FCR for the year ended December 31, 2019, which is available on our website.

Singapore Regulation

Branches of Renaissance Reinsurance and DaVinci based in the Republic of Singapore (the “Singapore Branches”) have each received a license to carry on insurance business as a general reinsurer. The activities of the Singapore Branches are primarily regulated by the Monetary Authority of Singapore pursuant to Singapore’s Insurance Act. Additionally, the Singapore Branches are each regulated by the Accounting and Corporate Regulatory Authority as a foreign company pursuant to Singapore’s Companies Act. Prior to the establishment of the Singapore Branches, Renaissance Reinsurance had maintained a representative office in Singapore commencing April 2012. We do not currently consider the activities and regulatory requirements of the Singapore Branches to be material to us.

Renaissance Services of Asia Pte. Ltd., our Singapore-based service company, was established as a private company limited by shares in Singapore on March 15, 2012 and is registered with the Accounting and Corporate Regulatory Authority and subject to Singapore’s Companies Act.

Ireland Regulation

Renaissance Reinsurance of Europe, incorporated under the laws of Ireland, provides coverage to insurers and reinsurers, primarily in Europe. Business has been written in Dublin. However, following the U.K.’s exit from the EU, and the expiry of the transition period on December 31, 2020, Renaissance Reinsurance of Europe’s U.K. branch is no longer underwriting any new business, and its existing book of business is now undergoing an orderly run-off under the U.K.’s “Financial Services Contracts Regime.”

Renaissance Reinsurance of Europe is regulated and supervised by the Central Bank of Ireland and are subject to the requirements of Solvency II. Renaissance Reinsurance of Europe is registered with the Companies Registration Office in Ireland and is subject to the Companies Act 2014. The Central Bank of Ireland adopts a risk-based framework to the supervision of regulated firms. Firms are rated according to the impact their failure would have on financial systems, the Irish economy and on the citizens of Ireland. Renaissance Reinsurance of Europe is currently considered by the Central Bank of Ireland to be a ‘low impact’ firm. We do not currently consider the regulatory requirements of Renaissance Reinsurance of Europe to be material to us.

Renaissance Services of Europe Ltd., our Dublin-based Irish service company, was established as a private company limited by shares in Ireland and is registered with the Companies Registration Office and subject to the Companies Act 2014.

Australia Regulation

RenaissanceRe Europe AG, Australia Branch (“RREAG, Australia Branch”), based in Sydney, Australia, has received a license to carry on insurance business. RREAG, Australia Branch provides coverage to insurers and reinsurers from Australia and New Zealand. The activities of RREAG, Australia Branch are primarily regulated by the Australian Prudential Regulation Authority (“APRA”). RREAG, Australia Branch is classified as a Category C insurer (a foreign insurer operating as a foreign branch in Australia) pursuant to the Insurance Act 1973. Additionally, RREAG, Australia Branch is also regulated by the Australian Securities and Investments Commission as a foreign company pursuant to the Corporations Act 2001. We do not currently consider the activities and regulatory requirements of RREAG, Australia Branch be material to us.

RREAG, Australia Branch's regulatory reporting is prepared in accordance with the Australian Accounting Standards and APRA Prudential Standards. APRA Prudential Standards require the maintenance of net assets in Australia in excess of a calculated Prescribed Capital Amount. At December 31, 2020, we believe that the net assets of RREAG, Australia Branch that are located in Australia exceeded the Prescribed Capital Amount that we estimated under the APRA Prudential Standards.

GLOSSARY OF SELECTED INSURANCE AND REINSURANCE TERMS

Accident year	Year of occurrence of a loss. Claim payments and reserves for claims and claim expenses are allocated to the year in which the loss occurred for losses occurring contracts and in the year the loss was reported for claims made contracts.
Acquisition expenses	The aggregate expenses incurred by a company for acquiring new business, including commissions, underwriting expenses, premium taxes and administrative expenses.
Additional case reserves	Additional case reserves represent management's estimate of reserves for claims and claim expenses that are allocated to specific contracts, less paid and reported losses by the client.
Attachment point	The dollar amount of loss (per occurrence or in the aggregate, as the case may be) above which excess of loss reinsurance becomes operative.
Bordereaux	A report providing premium or loss data with respect to identified specific risks. This report is periodically furnished to a reinsurer by the ceding insurers or reinsurers.
Bound	A (re)insurance contract is considered bound, and the (re)insurer responsible for the risks of the contract, when both parties agree to the terms and conditions set forth in the contract.
Broker	An intermediary who negotiates contracts of insurance or reinsurance, receiving a commission for placement and other services rendered, between (1) a policy holder and a primary insurer, on behalf of the insured party, (2) a primary insurer and reinsurer, on behalf of the primary insurer, or (3) a reinsurer and a retrocessionaire, on behalf of the reinsurer.
Capacity	The percentage of surplus, or the dollar amount of exposure, that an insurer or reinsurer is willing or able to place at risk. Capacity may apply to a single risk, a program, a line of business or an entire book of business. Capacity may be constrained by legal restrictions, corporate restrictions or indirect restrictions.
Case reserves	Loss reserves, established with respect to specific, individual reported claims.
Casualty insurance or reinsurance	Insurance or reinsurance that is primarily concerned with the losses caused by injuries to third persons and their property (in other words, persons other than the policyholder) and the legal liability imposed on the insured resulting therefrom. Also referred to as liability insurance.
Catastrophe	A severe loss, typically involving multiple claimants. Common perils include earthquakes, hurricanes, hailstorms, severe winter weather, floods, fires, tornadoes, typhoons, explosions and other natural or man-made disasters. Catastrophe losses may also arise from acts of war, acts of terrorism and political instability.
Catastrophe excess of loss reinsurance	A form of excess of loss reinsurance that, subject to a specified limit, indemnifies the ceding company for the amount of loss in excess of a specified retention with respect to an accumulation of losses resulting from a "catastrophe."
Catastrophe-linked securities; cat-linked securities	Cat-linked securities are generally privately placed fixed income securities where all or a portion of the repayment of the principal is linked to catastrophic events. This includes securities where the repayment is linked to the occurrence and/or size of, for example, one or more hurricanes or earthquakes, or insured industry losses associated with these catastrophic events.
Cede; cedant; ceding company	When a party reinsures its liability with another, it "cedes" business and is referred to as the "cedant" or "ceding company."

Claim	Request by an insured or reinsured for indemnification by an insurance company or a reinsurance company for losses incurred from an insured peril or event.
Claims made contracts	Contracts that cover claims for losses occurring during a specified period that are reported during the term of the contract.
Claims and claim expense ratio, net	The ratio of net claims and claim expenses to net premiums earned determined in accordance with either statutory accounting principles or GAAP.
Claim reserves	Liabilities established by insurers and reinsurers to reflect the estimated costs of claim payments and the related expenses that the insurer or reinsurer will ultimately be required to pay in respect of insurance or reinsurance policies it has issued. Claims reserves consist of case reserves, established with respect to individual reported claims, additional case reserves and "IBNR" reserves. For reinsurers, loss expense reserves are generally not significant because substantially all of the loss expenses associated with particular claims are incurred by the primary insurer and reported to reinsurers as losses.
Combined ratio	The combined ratio is the sum of the net claims and claim expense ratio and the underwriting expense ratio. A combined ratio below 100% generally indicates profitable underwriting prior to the consideration of investment income. A combined ratio over 100% generally indicates unprofitable underwriting prior to the consideration of investment income.
Delegated authority	A contractual arrangement between an insurer or reinsurer and an agent whereby the agent is authorized to bind insurance or reinsurance on behalf of the insurer or reinsurer. The authority is normally limited to a particular class or classes of business and a particular territory. The exercise of the authority to bind insurance or reinsurance is normally subject to underwriting guidelines and other restrictions such as maximum premium income. Under the delegated authority, the agent is responsible for issuing policy documentation, the collection of premium and may also be responsible for the settlement of claims.
Excess of loss reinsurance or insurance	Reinsurance or insurance that indemnifies the reinsured or insured against all or a specified portion of losses on underlying insurance policies in excess of a specified amount, which is called a "level" or "retention." Also known as non-proportional reinsurance. Excess of loss reinsurance is written in layers. A reinsurer or group of reinsurers accepts a layer of coverage up to a specified amount. The total coverage purchased by the cedant is referred to as a "program" and will typically be placed with predetermined reinsurers in pre-negotiated layers. Any liability exceeding the outer limit of the program reverts to the ceding company, which also bears the credit risk of a reinsurer's insolvency.
Exclusions	Those risks, perils, or classes of insurance with respect to which the reinsurer will not pay loss or provide reinsurance, notwithstanding the other terms and conditions of reinsurance.
Expense override	An amount paid to a ceding company in addition to the acquisition cost to compensate for overhead expenses.
Frequency	The number of claims occurring during a given coverage period.
Funds at Lloyd's	Funds of an approved form that are lodged and held in trust at Lloyd's as security for a member's underwriting activities. They comprise the members' deposit, personal reserve fund and special reserve fund and may be drawn down in the event that the member's syndicate level premium trust funds are insufficient to cover its liabilities. The amount of the deposit is related to the member's premium income limit and also the nature of the underwriting account.

Generally Accepted Accounting Principles in the United States (“GAAP”)	Accounting principles as set forth in the statements of the Financial Accounting Standards Board (“FASB”) and related guidance, which are applicable in the circumstances as of the date in question.
Gross premiums written	Total premiums for insurance written and assumed reinsurance during a given period.
Incurred but not reported (“IBNR”)	Reserves for estimated losses that have been incurred by insureds and reinsureds but not yet reported to the insurer or reinsurer, including unknown future developments on losses that are known to the insurer or reinsurer.
Insurance-linked securities	Financial instruments whose values are driven by (re)insurance loss events. Our investments in insurance-linked securities are generally linked to property losses due to natural catastrophes.
International Financial Reporting Standards (“IFRS”)	Accounting principles, standards and interpretations as set forth in opinions of the International Accounting Standards Board which are applicable in the circumstances as of the date in question.
Layer	The interval between the retention or attachment point and the maximum limit of indemnity for which a reinsurer is responsible.
Line	The amount of excess of loss reinsurance protection provided to an insurer or another reinsurer, often referred to as limit.
Line of business	The general classification of insurance written by insurers and reinsurers, e.g., fire, allied lines, homeowners and surety, among others.
Lloyd’s	Depending on the context, this term may refer to (a) the society of individual and corporate underwriting members that insure and reinsure risks as members of one or more syndicates (i.e., Lloyd’s is not an insurance company); (b) the underwriting room in the Lloyd’s building in which managing agents underwrite insurance and reinsurance on behalf of their syndicate members (in this sense Lloyd’s should be understood as a market place); or (c) the Corporation of Lloyd’s which regulates and provides support services to the Lloyd’s market.
Loss; losses	An occurrence that is the basis for submission and/or payment of a claim. Whether losses are covered, limited or excluded from coverage is dependent on the terms of the policy.
Loss reserve	For an individual loss, an estimate of the amount the insurer expects to pay for the reported claim. For total losses, estimates of expected payments for reported and unreported claims. These may include amounts for claims expenses.
Managing agent	An underwriting agent which has permission from Lloyd’s to manage a syndicate and carry on underwriting and other functions for a member.
Net claims and claim expenses	The expenses of settling claims, net of recoveries, including legal and other fees and the portion of general expenses allocated to claim settlement costs (also known as claim adjustment expenses or loss adjustment expenses) plus losses incurred with respect to net claims.
Net claims and claim expense ratio	Net claims and claim expenses incurred expressed as a percentage of net earned premiums.
Net premiums earned	The portion of net premiums written during or prior to a given period that was actually recognized as income during such period.
Net premiums written	Gross premiums written for a given period less premiums ceded to reinsurers and retrocessionaires during such period.
Perils	This term refers to the causes of possible loss in the property field, such as fire, windstorm, collision, hail, etc. In the casualty field, the term “hazard” is more frequently used.

Profit commission	A provision found in some reinsurance agreements that provides for profit sharing. Parties agree to a formula for calculating profit, an allowance for the reinsurer's expenses, and the cedant's share of such profit after expenses.
Property insurance or reinsurance	Insurance or reinsurance that provides coverage to a person with an insurable interest in tangible property for that person's property loss, damage or loss of use.
Property per risk	Reinsurance on a treaty basis of individual property risks insured by a ceding company.
Proportional reinsurance	A generic term describing all forms of reinsurance in which the reinsurer shares a proportional part of the original premiums and losses of the reinsured. (Also known as pro rata reinsurance, quota share reinsurance or participating reinsurance.) In proportional reinsurance, the reinsurer generally pays the ceding company a ceding commission. The ceding commission generally is based on the ceding company's cost of acquiring the business being reinsured (including commissions, premium taxes, assessments and miscellaneous administrative expense) and also may include a profit factor. See also "Quota Share Reinsurance."
Quota share reinsurance	A form of proportional reinsurance in which the reinsurer assumes an agreed percentage of each insurance policy being reinsured and shares all premiums and losses accordingly with the reinsured. See also "Proportional Reinsurance."
Reinstatement premium	The premium charged for the restoration of the reinsurance limit of a catastrophe contract to its full amount after payment by the reinsurer of losses as a result of an occurrence.
Reinsurance	An arrangement in which an insurance company, the reinsurer, agrees to indemnify another insurance or reinsurance company, the ceding company, against all or a portion of the insurance or reinsurance risks underwritten by the ceding company under one or more policies. Reinsurance can provide a ceding company with several benefits, including a reduction in net liability on insurances and catastrophe protection from large or multiple losses. Reinsurance also provides a ceding company with additional underwriting capacity by permitting it to accept larger risks and write more business than would be possible without an equivalent increase in capital and surplus, and facilitates the maintenance of acceptable financial ratios by the ceding company. Reinsurance does not legally discharge the primary insurer from its liability with respect to its obligations to the insured.
Reinsurance to Close	Also referred to as a RITC, it is a contract to transfer the responsibility for discharging all the liabilities that attach to one year of account of a syndicate into a later year of account of the same or different syndicate in return for a premium.
Retention	The amount or portion of risk that an insurer retains for its own account. Losses in excess of the retention level are paid by the reinsurer. In proportional treaties, the retention may be a percentage of the original policy's limit. In excess of loss business, the retention is a dollar amount of loss, a loss ratio or a percentage.
Retrocedant	A reinsurer who cedes all or a portion of its assumed insurance to another reinsurer.

Retrocessional reinsurance; Retrocessionaire	A transaction whereby a reinsurer cedes to another reinsurer, the retrocessionaire, all or part of the reinsurance that the first reinsurer has assumed. Retrocessional reinsurance does not legally discharge the ceding reinsurer from its liability with respect to its obligations to the reinsured. Reinsurance companies cede risks to retrocessionaires for reasons similar to those that cause primary insurers to purchase reinsurance: to reduce net liability on insurances, to protect against catastrophic losses, to stabilize financial ratios and to obtain additional underwriting capacity.
Risks	A term used to denote the physical units of property at risk or the object of insurance protection that are not perils or hazards. Also defined as chance of loss or uncertainty of loss.
Solvency II	A set of regulatory requirements that codify and harmonize the EU insurance and reinsurance regulation. Among other things, these requirements impact the amount of capital that EU insurance and reinsurance companies are required to hold. Solvency II came into effect on January 1, 2016.
Specialty lines	Lines of insurance and reinsurance that provide coverage for risks that are often unusual or difficult to place and do not fit the underwriting criteria of standard commercial products carriers.
Statutory accounting principles	Recording transactions and preparing financial statements in accordance with the rules and procedures prescribed or permitted by Bermuda, U.S. state insurance regulatory authorities including the NAIC and/or in accordance with Lloyd's specific principles, all of which generally reflect a liquidating, rather than going concern, concept of accounting.
Stop loss	A form of reinsurance under which the reinsurer pays some or all of a cedant's aggregate retained losses in excess of a predetermined dollar amount or in excess of a percentage of premium.
Submission	An unprocessed application for (i) insurance coverage forwarded to a primary insurer by a prospective policyholder or by a broker on behalf of such prospective policyholder, (ii) reinsurance coverage forwarded to a reinsurer by a prospective ceding insurer or by a broker or intermediary on behalf of such prospective ceding insurer or (iii) retrocessional coverage forwarded to a retrocessionaire by a prospective ceding reinsurer or by a broker or intermediary on behalf of such prospective ceding reinsurer.
Surplus lines insurance	Any type of coverage that cannot be placed with an insurer admitted to do business in a certain jurisdiction. Risks placed in excess and surplus lines markets are often substandard in respect to adverse loss experience, unusual, or unable to be placed in conventional markets due to a shortage of capacity.
Syndicate	A member or group of members underwriting (re)insurance business at Lloyd's through the agency of a managing agent or substitute agent to which a syndicate number is assigned.
Treaty	A reinsurance agreement covering a book or class of business that is automatically accepted on a bulk basis by a reinsurer. A treaty contains common contract terms along with a specific risk definition, data on limit and retention, and provisions for premium and duration.
Underwriting	The insurer's or reinsurer's process of reviewing applications submitted for insurance coverage, deciding whether to accept all or part of the coverage requested and determining the applicable premiums.
Underwriting capacity	The maximum amount that an insurance company can underwrite. The limit is generally determined by a company's retained earnings and investment capital. Reinsurance serves to increase a company's underwriting capacity by reducing its exposure from particular risks.

Underwriting expense ratio	The ratio of the sum of the acquisition expenses and operational expenses to net premiums earned.
Underwriting expenses	The aggregate of policy acquisition costs, including commissions, and the portion of administrative, general and other expenses attributable to underwriting operations.
Unearned premium	The portion of premiums written representing the unexpired portions of the policies or contracts that the insurer or reinsurer has on its books as of a certain date.

AVAILABLE INFORMATION

We maintain a website at www.renre.com. The information on our website is not incorporated by reference in this Form 10-K. We make available, free of charge through our website, our Annual Reports 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 we electronically file such material with, or furnish such material to, the U.S. Securities and Exchange Commission (the "SEC"). We also make available, free of charge from our website, our Audit Committee Charter, Compensation and Corporate Governance Committee Charter, Corporate Governance Guidelines, and Code of Ethics. Such information is also available in print for any shareholder who sends a request to RenaissanceRe Holdings Ltd., Attn: Office of the Corporate Secretary, P.O. Box HM 2527, Hamilton, HMGX, Bermuda. The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers, including the Company, that file electronically with the SEC. The address of the SEC's website is www.sec.gov.

ITEM 1A. RISK FACTORS

Factors that could cause our actual results to differ materially from those in the forward-looking statements contained in this Form 10-K and other documents we file with the SEC include the following:

Risk Factors Summary

The following is a summary of the principal risks that could adversely affect our business, operations and financial results.

Risks Related to the COVID-19 Pandemic

- The extent to which the COVID-19 pandemic and measures taken in response thereto will adversely impact our results of operations, financial condition and other aspects of our business is highly uncertain and difficult to predict, and will depend on future developments.
- Legislative, regulatory, judicial or social influences related to the COVID-19 pandemic may affect our financial performance and our ability to conduct our business.
- The COVID-19 pandemic may adversely impact the value of our investment portfolio and strategic investments, and may affect our ability to access liquidity and capital markets financing.
- Measures taken to mitigate the COVID-19 pandemic may adversely affect our operations or the operations of our brokers, services providers, retrocessionaires and other counterparties.

Risks Related to our (Re)insurance Business

- Our exposure to catastrophic events and premium volatility could cause our financial results to vary significantly from one period to the next and could adversely impact our financial results.
- Our claims and claim expense reserves are subject to inherent uncertainties.
- The trend towards increasingly frequent and severe climate events could result in underestimated exposures that have the potential to adversely impact our financial results.
- A decline in our financial strength ratings may adversely impact our business, perhaps materially so.
- Emerging claim and coverage issues, or other litigation, could adversely affect us.
- Retrocessional reinsurance may become unavailable on acceptable terms, or may not provide the coverage we intended to obtain, or we may not be able to collect on claimed retrocessional coverage.
- We depend on a few insurance and reinsurance brokers for a preponderance of our revenue, and any loss of business provided by them could adversely affect us.

- A soft reinsurance underwriting market would adversely affect our business and operating results.
- We could face losses from terrorism, political unrest and war.
- We depend on the policies, procedures and expertise of ceding companies and delegated authority counterparties, who may fail to accurately assess the risks they underwrite, which exposes us to operational and financial risks.
- The reinsurance and insurance businesses are historically cyclical and the pricing and terms for our products may decline, which would affect our profitability.
- Consolidation in the (re)insurance industry could adversely impact us.
- We operate in a highly competitive environment.
- Internationally, restrictions on the writing of reinsurance by foreign companies and government intervention in the natural catastrophe market could reduce market opportunities for our customers and adversely impact us.

Risks Related to the Economic Environment

- We are exposed to counterparty credit risk, including with respect to reinsurance brokers, customers and retrocessionaires.
- Weakness in business and economic conditions generally or specifically in the principal markets in which we do business could adversely affect our business and operating results.
- A decline in our investment performance could reduce our profitability and hinder our ability to pay claims promptly in accordance with our strategy.
- We may be adversely affected by foreign currency fluctuations.
- Changes in the method for determining LIBOR and the potential replacement of LIBOR may affect our cost of capital and net investment income.
- We may be adversely impacted by inflation.
- We may require additional capital in the future, which may not be available or may only be available on unfavorable terms.
- We are subject to cybersecurity risks and may incur increasing costs in an effort to minimize those risks.
- Acquisitions or strategic investments we have made or may make could turn out to be unsuccessful.
- The loss of key senior members of management could adversely affect us.
- We are exposed to risks in connection with our management of capital on behalf of investors in joint ventures or other entities we manage.
- We may from time to time modify our business and strategic plan, and these changes could adversely affect us and our financial condition.
- Our business is subject to operational risks, including systems or human failures.
- The preparation of our consolidated financial statements requires us to make many estimates and judgments.
- The determination of impairments taken is highly subjective and could materially impact our financial position or results of operations.
- The covenants in our debt agreements limit our financial and operational flexibility, which could have an adverse effect on our financial condition.

Risks Related to Legal and Regulatory Matters

- The regulatory systems under which we operate and potential changes thereto could restrict our ability to operate, increase our costs, or otherwise adversely impact us.
- We face risks related to changes in Bermuda law and regulations, and the political environment in Bermuda.
- Because we are a holding company, we are dependent on dividends and payments from our subsidiaries.
- Some aspects of our corporate structure may discourage third-party takeovers and other transactions or prevent the removal of our current board of directors and management.
- Investors may have difficulty in serving process or enforcing judgments against us in the U.S.
- Recent or future U.S. federal or state legislation may impact the private markets and decrease the demand for our property reinsurance products, which would adversely affect our business and results of operations.
- Other political, regulatory and industry initiatives by state and international authorities could adversely affect our business.

- Our business is subject to certain laws and regulations relating to sanctions and foreign corrupt practices, the violation of which could adversely affect our operations.
- Increasing barriers to free trade and the free flow of capital could adversely affect the reinsurance industry and our business.
- Regulatory regimes and changes to accounting rules may adversely impact financial results irrespective of business operations.
- The exit by the U.K. from the EU could adversely affect our business.

Risks Related to Taxation

- U.S. taxing authorities could contend that one or more of our Bermuda subsidiaries is subject to U.S. corporate income tax, as a result of changes in laws or regulations, or otherwise.
- Recently enacted U.S. tax reform legislation, as well as possible future tax reform legislation and regulations, could reduce our access to capital, decrease demand for our products and services, impact our shareholders or investors in our joint ventures or other entities we manage or otherwise adversely affect us.
- The OECD and the EU may pursue measures that might increase our taxes and reduce our net income and increase our reporting requirements.

Risks Related to the COVID-19 Pandemic

The extent to which the COVID-19 pandemic and measures taken in response thereto will adversely impact our results of operations, financial condition and other aspects of our business is highly uncertain and difficult to predict, and will depend on future developments.

We are closely monitoring developments relating to the COVID-19 pandemic, including government actions taken to reduce the spread of the virus, and are continually assessing its impact on our business and the insurance and reinsurance sectors. The COVID-19 pandemic has had a major impact on the global economy and financial markets, and has resulted in government authorities implementing numerous measures to try to contain the virus, such as travel bans and restrictions, quarantines, social distancing, shelter in place or total lock-down orders and business limitations and shutdowns. At this time, it is not possible to estimate how long it will take to stop the spread and severity of the virus or the length and impact of government mitigation actions in response thereto, but the pandemic has significantly increased economic uncertainty and reduced economic activity, both globally and in the markets in which we participate. These conditions are expected to continue and potentially worsen, either in the near term or in future periods, particularly if there are subsequent waves of infection.

As a result, we expect the pandemic will have a significant and ongoing effect on our business operations and current and future financial performance, including in ways we cannot predict. We expect losses to emerge over time as the full impact of the pandemic and its effects on the global economy are realized. Developments in primary insurance claims handling and public sector initiatives may impact the emergence of insured losses. A longer or more severe recession, or high unemployment levels will increase the probability of losses and may impact the demand for insurance and reinsurance. Our ability to renew our current retrocessional reinsurance arrangements or obtain desired amounts of new or replacement coverage on favorable terms may be reduced as a result of the COVID-19 pandemic, which could limit the amount of business we are willing to write or decrease the protection available to us as a result of large loss events. Further, our counterparty credit risk may be exacerbated, as certain of our counterparties may face financial difficulties in paying owed amounts on a timely basis or at all. Because this is an evolving and highly uncertain situation, it is not possible at this time to estimate our ultimate potential insurance, reinsurance or investment exposure, or all other direct or indirect effects that the COVID-19 pandemic may have on our results of operations and financial condition, although they are potentially severe. For information relating to the net negative impact of COVID-19 losses on our underwriting result for the year ended December 31, 2020, refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Ratings.” The impact of the COVID-19 pandemic could also exacerbate the other risks we face described herein. All of the foregoing events or potential outcomes, including in combination with other risk factors included or incorporated by reference herein, could cause a material adverse effect on our results of operations for any period, and, depending on their severity, could also materially and adversely affect our financial condition.

Legislative, regulatory, judicial or social influences related to the COVID-19 pandemic may affect our financial performance and our ability to conduct our business.

Like many reinsurers and insurers, we have exposure to losses stemming from COVID-19 related claims. The extent to which the COVID-19 pandemic triggers coverage is dependent on specific policy language, terms and exclusions. However, legislative, regulatory, judicial or social influences may impose new obligations on insurers in connection with the pandemic that extend coverage beyond the intended contractual obligations or result in an increase in the frequency or severity of claims beyond expected levels, resulting in the emergence of unexpected or un-modeled insurance or reinsurance losses. For example, many governments and regulatory bodies have considered proposals that would retroactively change the terms of existing insurance contracts that generally exclude business interruption losses from pandemics. Should these proposals be reconsidered and enacted, notwithstanding the fact that such losses fall outside of the terms and conditions of the original underlying contracts, and the fact that our own reinsurance contract wordings may differ from underlying primary insurance policies and may be subject to different legal doctrines and choice of law regimes, our reinsurance contracts could nonetheless be interpreted to provide coverage for these business interruption losses.

In addition, a number of proposals have been introduced or proposed to alter the financing of pandemic-related risk in several of the markets in which we operate. It is possible that any such proposal, if ultimately adopted in the United States or other jurisdictions in which we provide coverage, could have adverse or unforeseen impacts, such as reducing private market opportunities for insurance, reinsurance or other risk transfer products. These and other future legislative, regulatory or judicial actions could have a material adverse impact on our business and make it difficult to predict the total amount of losses we could incur as a result of the COVID-19 pandemic, but these losses could be significant.

The COVID-19 pandemic may adversely impact the value of our investment portfolio and strategic investments, and may affect our ability to access liquidity and capital markets financing.

Volatility in global financial markets resulting from the COVID-19 pandemic may adversely impact the value of our investment portfolio and our strategic investments. While the support from governments and central banks has helped address the economic impact, prolonged low, or negative interest rates and a slowdown in global economic conditions have increased the risk of defaults, downgrades and volatility in the value of many of the investments we hold. In addition, the steps taken, and the steps that may in the future be taken, by federal, state and local governments in responding to the COVID-19 pandemic, and the costs of such actions, may lead to higher than expected inflation and further financial stress on global financial markets.

In addition, certain jurisdictions may be considering imposing dividend restrictions on insurance companies, which, if enacted, would potentially impact liquidity for holding companies who have insurance subsidiaries in those jurisdictions. For example, the European Insurance and Occupational Pensions Authority, the EU's insurance regulator, has recommended that the approval of dividends from insurance companies be suspended while uncertainty over the impact of the pandemic remains high. As a holding company with no direct operations, we rely on dividends and other permitted payments from our subsidiaries and may be unable to make principal and interest payments on our debt and to pay dividends to our shareholders if our operating subsidiaries are unable to pay dividends to us.

Measures taken to mitigate the COVID-19 pandemic may adversely affect our operations or the operations of our brokers, services providers, retrocessionaires and other counterparties.

From an operational perspective, our employees, directors and agents, as well as the workforces of our brokers, vendors, service providers, retrocessionaires and other counterparties, may be adversely affected by the COVID-19 pandemic or efforts to mitigate the pandemic, including government-mandated measures described above. Remote work arrangements could strain our business continuity plans, introduce operational risk, including but not limited to cybersecurity risks, and adversely affect our ability to manage our business. Our company, in particular, depends in substantial part upon our ability to attract and retain our senior officers, and to the extent the COVID-19 pandemic adversely impacts the availability of any of our key officers, or our efforts to recruit key personnel to Bermuda and other international locations, our business will be adversely affected. Further, our operations could be disrupted to the extent that key members of senior management, board of directors or a significant portion of our employees are unable to work due to illness, government actions, or otherwise. Additionally, if one or more of the third parties to whom we outsource certain critical business activities experience operational failures as a result of the impacts from the spread of COVID-19, or claim that they cannot perform due to a force majeure, it may have an adverse effect on our business, results of operations or financial condition.

Risks Related to our (Re)insurance Business

Our exposure to catastrophic events and premium volatility could cause our financial results to vary significantly from one period to the next and could adversely impact our financial results.

We have a large overall exposure to natural and man-made disasters, such as earthquakes, hurricanes, tsunamis, winter storms, freezes, floods, fires, tornadoes, hailstorms, drought, cyber-risks and acts of terrorism. As a result, our operating results have historically been, and we expect will continue to be, significantly affected by low frequency and high severity loss events.

Claims from catastrophic events could cause substantial volatility in our quarterly and annual financial results and could materially adversely affect our financial condition, results of operations and cash flows. We believe that certain factors, including increases in the value and geographic concentration of insured property, particularly along coastal regions, the increasing risks associated with extreme weather events as a result of changes in climate conditions, and the effects of higher than expected inflation (which may be exacerbated by the steps taken by governments throughout the world in responding to the COVID-19 pandemic), may continue to increase the number and severity of claims from catastrophic events in the future. This volatility may be exacerbated by COVID-19 related increased demand on first responders and healthcare infrastructure, which may increase the severity of catastrophic events due to limited resources and the increased likelihood that preparation orders or evacuation orders may be unheeded or met with low compliance levels. Accordingly, unanticipated events could result in net negative impacts. Historically, a relatively large percentage of our coverage exposures have been concentrated in the U.S. southeast, but due to the expected increase in severe weather events, there is the potential for significant exposures in other geographic areas in the future.

Risks of volatility in our financial results are also exacerbated by the fact that the premiums in both our Property and Casualty and Specialty segments are prone to significant volatility due to factors including the timing of contract inception and our differentiated strategy and capability, which position us to pursue bespoke or large solutions for clients, which may be non-recurring.

Our claims and claim expense reserves are subject to inherent uncertainties.

Our claims and claim expense reserves reflect our estimates, using actuarial and statistical projections at a given point in time, of our expectations of the ultimate settlement and administration costs of claims incurred.

We use actuarial and computer models (See "Part I, Item 1. Business—Underwriting and Enterprise Risk Management."), historical reinsurance and insurance industry loss statistics, and management's experience and judgment to assist in the establishment of appropriate claims and claim expense reserves. Our estimates and judgments are based on numerous factors, and may be revised as additional experience and other data become available and are reviewed, as new or improved methodologies are developed, as loss trends and claims inflation impact future payments, or as current laws or interpretations thereof change.

Due to the many assumptions and estimates involved in establishing reserves and the inherent uncertainty of modeling techniques, the reserving process is inherently uncertain. It is expected that some of our assumptions or estimates will prove to be inaccurate, and that our actual net claims and claim expenses paid and reported will differ, perhaps materially, from the reserve estimates reflected in our financial statements. For example, our significant gross and net reserves associated with the large catastrophe events in the past several years, as well as those recorded in 2020 associated with the COVID-19 pandemic, remain subject to significant uncertainty. As information emerges and losses are paid, we expect our reserves may change, perhaps materially.

Accordingly, we may underestimate the exposures we are assuming and our results of operations and financial condition may be adversely impacted, perhaps significantly. Conversely, we may prove to be too conservative and contribute to factors which would impede our ability to grow in respect of new markets or perils or in connection with our current portfolio of coverages.

The trend towards increasingly frequent and severe climate events could result in underestimated exposures that have the potential to adversely impact our financial results.

Our most severe estimated economic exposures arise from our coverages for natural disasters and catastrophes. The trend towards increased severity and frequency of weather-related natural disasters and catastrophes which we believe arises in part from changes in climate conditions, coupled with currently

projected demographic trends in catastrophe-exposed regions, contributes to factors which we believe increase the average economic value of expected losses, increase the number of people exposed per year to natural disasters and in general exacerbate disaster risk, including risks to infrastructure, global supply chains and agricultural production. Further, we believe that the recent increase in catastrophic events is indicative of permanent climate change rather than transient climate variability. These and other factors may cause the potential for losses from natural disasters and catastrophes to be unusually uncertain or volatile as compared to pre-pandemic levels. Accordingly, it is possible we will experience an increase in claim severity, especially from properties located in these catastrophe-exposed regions, in the advent of near-term natural disaster activity.

A substantial portion of our coverages may be adversely impacted by climate change, and we cannot assure you that our risk assessments accurately reflect environmental and climate related risks. We cannot predict with certainty the frequency or severity of tropical cyclones, wildfires or other catastrophes. Unanticipated environmental incidents could lead to additional insured losses that exceed our current estimates, resulting in disruptions to or adverse impacts on our business, the market, or our clients. Further, certain investments, such as catastrophe-linked securities and property catastrophe joint ventures or managed funds, or other assets in our investment portfolio, could also be adversely impacted by climate change.

A decline in our financial strength ratings may adversely impact our business, perhaps materially so.

Financial strength ratings are used by ceding companies and reinsurance intermediaries to assess the financial strength and quality of reinsurers and insurers. Rating agencies evaluate us periodically and may downgrade or withdraw their financial strength ratings in the future if we do not continue to meet the criteria of the ratings previously assigned to us. In addition, rating agencies may make changes in their capital models and rating methodologies which could increase the amount of capital required to support the ratings.

A ratings downgrade or other negative ratings action could adversely affect our ability to compete with other reinsurers and insurers, as well as the marketability of our product offerings, our access to and cost of borrowing and our ability to write new business, which could materially adversely affect our results of operations. For example, following a ratings downgrade we might lose customers to more highly rated competitors or retain a lower share of the business of our customers or we could incur higher borrowing costs on our credit facilities.

In addition, many reinsurance contracts contain provisions permitting cedants to, among other things, cancel coverage pro rata or require the reinsurer to post collateral for all or a portion of its obligations if the reinsurer is downgraded below a certain rating level. It is increasingly common for our reinsurance agreements to contain such terms and/or to specify other circumstances under which we are required to post collateral such as in the form of letters of credit, trust funds or other assets. Whether a cedant would exercise any of these rights could depend on various factors, such as the reason for and extent of such downgrade or other circumstance, the prevailing market conditions and the pricing and availability of replacement reinsurance coverage. We cannot predict to what extent these contractual rights would be exercised, if at all, or what effect this would have on our financial condition or future operations, but the effect could be material.

For the current ratings of certain of our subsidiaries and joint ventures and additional ratings information, refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Ratings.”

Emerging claim and coverage issues, or other litigation, could adversely affect us.

Unanticipated developments in the law as well as changes in social conditions could potentially result in unexpected claims for coverage under our insurance and reinsurance contracts. These developments and changes may adversely affect us, perhaps materially so. For example, we could be subject to developments that impose additional coverage obligations on us beyond our underwriting intent, or to increases in the number or size of claims to which we are subject. In particular, legislative, regulatory, judicial or social influences may impose new obligations on insurers or reinsurers in connection with the COVID-19 pandemic that extend coverage beyond the intended contractual obligations, or result in an increase in the frequency or severity of claims beyond expected levels. See “*Legislative, regulatory, judicial or social*”

influences related to the COVID-19 pandemic may affect our financial performance and our ability to conduct our business.”

In addition, we believe our property results have been adversely impacted over recent periods by increasing primary claims level fraud and abuses, as well as other forms of social inflation, and that these trends may continue, particularly in certain U.S. jurisdictions in which we focus, including Florida and Texas. For example, in recent years, Florida homeowners have been assigning the benefit of their insurance recovery to third parties, typically related to a water loss claim but also with respect to other claims. This practice is referred to as an “assignment of benefits” or “AOB,” and has resulted in increases in the size and number of claims and the incidences of litigation, interference in the adjustment of claims, and the assertion of bad faith actions and a one-way right to claim attorney fees. AOB and related insurance fraud may directly affect us, potentially materially, through any policy we write in Florida, and by inflating the size of occurrences we cover under our reinsurance treaties and reducing the value of certain investments we have in Florida, including both debt and equity investments in domestic reinsurers. In July 2019, Florida enacted an AOB reform bill intended to limit AOB litigation by creating requirements for the execution of an AOB and allowing an insurance policy to prohibit an AOB, but there can be no assurance the new legislation will reduce the impact of AOB practices.

With respect to our casualty and specialty reinsurance operations, these legal and social changes and their impact may not become apparent until some time after their occurrence. For example, we could be deemed liable for losses arising out of a matter, such as the potential for industry losses arising out of a pandemic illness such as COVID-19, that we had not anticipated or had attempted to contractually exclude. Moreover, irrespective of the clarity and inclusiveness of policy language, we cannot assure you that a court or arbitration panel will enforce policy language or not issue a ruling adverse to us. Our exposure to these uncertainties could be exacerbated by the increased willingness of some market participants to dispute insurance and reinsurance contract and policy wording and by social inflation trends, including increased litigation, expanded theories of liability and higher jury awards. These risks may be further exacerbated by the increasing trend of some primary insurers not to settle underlying claims.

All of these risks may be further heightened as a result of the COVID-19 pandemic, including with respect to our reinsurance contracts, which may be interpreted to provide coverage for COVID-19-related business interruption losses, notwithstanding the fact that such losses fall outside of the terms and conditions of the original underlying contracts. Alternatively, potential efforts by us to exclude such exposures could, if successful, reduce the market’s acceptance of our related products. The full effects of these and other unforeseen emerging claim and coverage issues are extremely hard to predict. As a result, the full extent of our liability under our coverages may not be known for many years after a contract is issued. Furthermore, we expect that our exposure to this uncertainty will grow as our casualty businesses grow, because in these “long-tail” lines claims can typically be made for many years, making them more susceptible to these trends than our catastrophe business, which is typically more “short-tail.” While we continually seek to improve the effectiveness of our contracts and claims capabilities, we may fail to mitigate our exposure to these growing uncertainties.

Retrocessional reinsurance may become unavailable on acceptable terms, or may not provide the coverage we intended to obtain, or we may not be able to collect on claimed retrocessional coverage.

As part of our risk management, we buy reinsurance for our own account, which is known as “retrocessional reinsurance.” The reinsurance we purchase is generally subject to annual renewal. From time to time, market conditions have limited or prevented insurers and reinsurers from obtaining retrocessional reinsurance, which may be the case even when reinsurance market conditions in general are strong. In the current environment, our ability to renew our current retrocessional reinsurance arrangements or obtain desired amounts of new or replacement coverage on favorable terms may be substantially reduced as a result of the COVID-19 pandemic, as well as a series of prior year large loss events which had already begun to affect the retrocessional market prior to the impact of the COVID-19 pandemic. Accordingly, we may not be able to renew our current retrocessional reinsurance arrangements or obtain desired amounts of new or replacement coverage, which could limit the amount of business we are willing to write or decrease the protection available to us as a result of large loss events. In addition, even if we are able to obtain such retrocessional reinsurance, we may not be able to negotiate terms that we consider appropriate or acceptable from entities with satisfactory creditworthiness or collect on claimed retrocessional coverage.

This could limit the amount of business we are willing to write or decrease the protection available to us as a result of large loss events.

When we purchase reinsurance or retrocessional reinsurance for our own account, the insolvency of any of our reinsurers, or inability or reluctance of any of our reinsurers to make timely payments to us under the terms of our reinsurance agreements could have a material adverse effect on us. These risks may be exacerbated by the COVID-19 pandemic, if any of our counterparties face financial difficulties in paying owed amounts timely, or at all. We have significant reinsurance recoverable associated with the large catastrophe events of the past several years and, generally, we believe that the “willingness to pay” of some reinsurers and retrocessionaires is declining. Therefore, this risk may be more significant to us at present than at many times in the past. Complex coverage issues or coverage disputes may impede our ability to collect amounts we believe we are owed.

A large portion of our reinsurance protection is concentrated with a relatively small number of reinsurers. The risk of such concentration of retrocessional coverage may be increased by recent and future consolidation within the industry. The COVID-19 pandemic, in particular, may lead to the increased consolidation in the (re)insurance industry as larger, better capitalized competitors will be in a stronger position to withstand prolonged periods of economic downturn and sustain or grow their business through the financial volatility.

We also sell retrocessional reinsurance to other reinsurers. See “*We are exposed to counterparty credit risk, including with respect to reinsurance brokers, customers and retrocessionaires*” for certain counterparty risks that may be associated with this business.

We depend on a few insurance and reinsurance brokers for a preponderance of our revenue, and any loss of business provided by them could adversely affect us.

We market our insurance and reinsurance products worldwide through a limited number of insurance and reinsurance brokers. As our business is heavily reliant on the use of a few brokers, the loss of a broker, through a merger, other business combination or otherwise, could result in the loss of a substantial portion of our business, which would have a material adverse effect on us. Our ability to market our products could decline as a result of the loss of the business provided by any of these brokers and it is possible that our premiums written would decrease. Further, due to the concentration of our brokers, which increased following the closing of the acquisition of TMR, and may further increase following the closing of currently pending mergers among brokers, our brokers may have increasing power to dictate the terms and conditions of our arrangements with them, which could have a negative impact on our business.

A soft reinsurance underwriting market would adversely affect our business and operating results.

In a soft reinsurance underwriting market, premium rates are stable or falling and coverage is readily available. In a hard reinsurance underwriting market, premium rates are increasing and less coverage may be available. Leading global intermediaries and other sources have generally reported that the U.S. reinsurance market reflected a soft underwriting market during the last several years, with growing levels of industry wide capital being supplied principally by traditional market participants and increasingly by alternative capital providers. While we believe that the current reinsurance underwriting market has moved to a hard market phase, caused by recent withdrawals of alternative capital, the aggregation of multiple catastrophic events and continuing prior year adverse development, we cannot assure you that the rise in rates will continue to accelerate, or be sustainable, as a result of the uncertainty around the potential breadth and depth of losses that could arise from the COVID-19 pandemic. In addition, we believe the market cycle dynamic is likely to persist, and that we may return to soft market conditions in the future. However, it is possible that increased access of primary insurers to capital, new technologies and other factors may reduce the duration or eliminate or significantly lessen the impact of any current or future hard reinsurance underwriting market.

We could face losses from terrorism, political unrest and war.

We have exposure to losses resulting from acts of terrorism, political unrest and acts of war. The frequency of these events has increased in recent years and it is difficult to predict the occurrence of these events or to estimate the amount of loss an occurrence will generate. Accordingly, it is possible that actual losses from such acts will exceed our probable maximum loss estimate and that these acts will have a material adverse effect on us.

We closely monitor the amount and types of coverage we provide for terrorism risk under reinsurance and insurance treaties. If we think we can reasonably evaluate the risk of loss and charge an appropriate premium for such risk we will write some terrorism exposure on a stand-alone basis. We generally seek to exclude terrorism from non-terrorism treaties. If we cannot exclude terrorism, we evaluate the risk of loss and attempt to charge an appropriate premium for such risk. Even in cases where we have deliberately sought to exclude coverage, we may not be able to completely eliminate our exposure to terrorist acts.

We depend on the policies, procedures and expertise of ceding companies and delegated authority counterparties, who may fail to accurately assess the risks they underwrite, which exposes us to operational and financial risks.

Like other reinsurers, we do not separately evaluate each primary risk assumed under our reinsurance contracts or pursuant to our delegated authority business. Accordingly, we are heavily dependent on the original underwriting decisions made by our ceding companies and delegated authority counterparties and are therefore subject to the risk that our customers may not have adequately evaluated the risks to be reinsured, or that the premiums ceded to us will not adequately compensate us for the risks we assume, perhaps materially so. In addition, it is possible that delegated authority counterparties or other counterparties authorized to bind policies on our behalf will fail to fully comply with regulatory requirements, such as those relating to sanctions, or the standards we impose in light of our own underwriting and reputational risk tolerance. To the extent we continue to increase the relative amount of proportional coverages we offer, we will increase our aggregate exposure to risks of this nature.

The reinsurance and insurance businesses are historically cyclical and the pricing and terms for our products may decline, which would affect our profitability.

The reinsurance and insurance industries have historically been cyclical, characterized by periods of decreasing prices followed by periods of increasing prices. Reinsurers have experienced significant fluctuations in their results of operations due to numerous factors, including the frequency and severity of catastrophic events, perceptions of risk, levels of capacity, general economic conditions and underwriting results of other insurers and reinsurers. All of these factors may contribute to price declines generally in the reinsurance and insurance industries. Over the last several years, the reinsurance and insurance markets experienced a prolonged period of generally softening markets. This trend has recently shifted, however, and we cannot assure you as to the duration or amplitude of the current or any potential future hard market cycle.

Our catastrophe-exposed lines are affected significantly by volatile and unpredictable developments, including natural and man-made disasters. The occurrence, or nonoccurrence, of catastrophic events, the frequency and severity of which are inherently unpredictable, affects both industry results and consequently prevailing market prices of our products.

We expect premium rates and other terms and conditions of trade to vary in the future. If demand for our products falls or the supply of competing capacity rises, our prospects for potential growth, due in part to our disciplined approach to underwriting, may be adversely affected. In particular, we might lose existing customers or suffer a decline in business, which we might not regain when industry conditions improve.

Consolidation in the (re)insurance industry could adversely impact us.

The (re)insurance industry, including our competitors, customers and insurance and reinsurance brokers, has seen significant consolidation over the last several years. The COVID-19 pandemic may contribute to increased consolidation as larger, better capitalized competitors will be in a stronger position than certain of their competitors to withstand prolonged periods of economic downturn and sustain or grow their business through the financial volatility. Should the market continue to consolidate, there can be no assurance we would remain a leading reinsurer. These consolidated client and competitor enterprises may try to use their enhanced market power to negotiate price reductions for our products and services and/or obtain a larger market share through increased line sizes. If competitive pressures reduce our prices, we would generally expect to reduce our future underwriting activities, resulting in reduced premiums and a reduction in expected earnings. As the insurance industry consolidates, competition for customers becomes more intense and sourcing and properly servicing each customer become even more important. We could incur greater expenses relating to customer acquisition and retention, further reducing our operating margins. In addition, insurance companies that merge may be able to spread their risks across a consolidated, larger capital base so that they require less reinsurance. The number of companies offering retrocessional

reinsurance may decline. Reinsurance intermediaries could also continue to consolidate, potentially adversely impacting our ability to access business and distribute our products. We could also experience more robust competition from larger, better capitalized competitors. Any of the foregoing could adversely affect our business or our results of operations.

We operate in a highly competitive environment.

The reinsurance industry is highly competitive. We compete, and will continue to compete, with major U.S. and non-U.S. insurers and reinsurers, including other Bermuda-based reinsurers. Many of our competitors have greater financial, marketing and management resources than we do. Historically, periods of increased capacity levels in our industry have led to increased competition and decreased prices for our products.

In recent years, pension funds, endowments, investment banks, investment managers, exchanges, hedge funds and other capital markets participants have been active in the reinsurance market and markets for related risks, either through the formation of reinsurance companies or the use of other financial products intended to compete with traditional reinsurance. We may also face competition from non-traditional competitors, such as technology companies, Insurtech start-up companies and others, who aim to leverage their access to “big data,” artificial intelligence or other emerging technologies. In order to maintain a competitive position, we must continue to invest in new technologies and new ways to deliver our products and services.

We expect competition from these sources and others to continue to increase over time. It is possible that such new or alternative capital could cause reductions in prices of our products, or reduce the duration or amplitude of attractive portions of the historical market cycles. New entrants or existing competitors may attempt to replicate all or part of our business model and provide further competition in the markets in which we participate. Moreover, government-backed entities increasingly represent competition for the coverages we provide directly or for the business of our customers, reducing the potential amount of third-party private protection our clients might need or desire. To the extent that industry pricing of our products does not meet our hurdle rate, we would generally expect to reduce our future underwriting activities, thus resulting in reduced premiums and a reduction in expected earnings.

Additionally, in May 2020, the Federal Housing Finance Administration, the regulator and conservator of Fannie Mae and Freddie Mac, issued a proposed capital rule that would significantly reduce the value of credit risk transfer to government sponsored entities (“GSEs”), reinsurers and other capital market participants if enacted. The proposal includes a series of “haircuts” to the GSEs’ credit for risk transfer, meaning they would be expected to require a larger capital reserve even after transferring risk off their balance sheets. Accordingly, this could adversely impact the attractiveness to the GSE of investing in private financial protection, including reinsurance, which have been a source of private market demand growth in our sector over recent periods. We cannot assess with precision the probability these changes will be enacted or, if enacted, their exact impact on the markets in which we participate.

We are unable to predict the extent to which the foregoing or other new, proposed or potential initiatives may affect the demand for our products or the risks for which we seek to provide coverage.

Internationally, restrictions on the writing of reinsurance by foreign companies and government intervention in the natural catastrophe market could reduce market opportunities for our customers and adversely impact us.

Internationally, many countries with fast growing economies, such as China and India, continue to impose significant restrictions on the writing of reinsurance by foreign companies. In addition, in the wake of recent large natural catastrophes, a number of proposals have been introduced to alter the financing of natural catastrophes in several of the markets in which we operate. For example, the Thailand government has announced it is studying proposals for a natural catastrophe fund, under which the government would provide coverage for natural disasters in excess of an industry retention and below a certain limit, after which private reinsurers would continue to participate. The government of the Philippines has announced that it is considering similar proposals. Indonesia’s financial services authority has announced a proposal to increase the amount of insurance business placed with domestic reinsurers. A range of proposals from varying stakeholders have been reported to have been made to alter the current regimes for insuring flood risk in the U.K., flood risk in Australia and earthquake risk in New Zealand. If these proposals are enacted and reduce market opportunities for our clients or for the reinsurance industry, we could be adversely impacted.

Risks Related to the Economic Environment

We are exposed to counterparty credit risk, including with respect to reinsurance brokers, customers and retrocessionaires.

We believe our exposure to counterparty credit risk has increased in recent years, and the COVID-19 pandemic has further heightened this risk. In accordance with industry practice, we pay virtually all amounts owed on claims under our policies to reinsurance brokers, and these brokers, in turn, pay these amounts over to the insurers that have reinsured a portion of their liabilities with us (we refer to these insurers as ceding insurers). Likewise, premiums due to us by ceding insurers are virtually all paid to brokers, who then pass such amounts on to us. In many jurisdictions, we have contractually agreed that if a broker were to fail to make a payment to a ceding insurer, we would remain liable to the ceding insurer for the deficiency. Conversely, in many jurisdictions, when the ceding insurer pays premiums for these policies to reinsurance brokers for payment over to us, these premiums are considered to have been received by us upon receipt by the broker, and the ceding insurer is no longer liable to us for those amounts, whether or not we have actually received the premiums. Consequently, in connection with the settlement of reinsurance balances, we assume a substantial degree of credit risk associated with brokers around the world.

We are also exposed to the credit risk of our customers, who, pursuant to their contracts with us, frequently pay us over time. We cannot assure you that we will collect our premiums receivable from ceding insurers and reinsurers to whom we sell retrocessional reinsurance or our reinsurance recoverable from our own reinsurers or retrocessionaires, which may not be collateralized, and we may be required to write down additional amounts in future periods. To the extent our customers or retrocedants become unable to pay future premiums, we would be required to recognize a downward adjustment to our premiums receivable or reinsurance recoverable, as applicable, in our financial statements. We have significant reinsurance recoverable, and our failure to collect even a small portion of these recoverables, or a meaningful delay in the collection of recoverables as to which our own underlying obligations are due, could negatively affect our results of operations and financial condition, perhaps materially.

During periods of economic uncertainty, such as the current environment, our consolidated credit risk, reflecting our counterparty dealings with agents, brokers, customers, retrocessionaires, capital providers, parties associated with our investment portfolio, and others may increase, perhaps materially so.

Weakness in business and economic conditions generally or specifically in the principal markets in which we do business could adversely affect our business and operating results.

Challenging economic conditions throughout the world could adversely affect our business and financial results. When economic conditions weaken, as they have as a result of the COVID-19 pandemic, the business environment in our principal markets may be adversely affected, which tends to adversely affect demand for certain of the products sold by us or our customers. In addition, volatility in the U.S. and other securities markets may adversely impact our investment portfolio or the investment results of our clients, potentially impeding their operations or their capacity to invest in our products. Global financial markets and economic and geopolitical conditions are outside of our control and difficult to predict, being influenced by factors such as the COVID-19 pandemic and the impact of government mitigation actions in response thereto, national and international political circumstances (including governmental instability, wars, terrorist acts or security operations), interest rates, market volatility, asset or market correlations, equity prices, availability of credit, inflation rates, economic uncertainty, changes in laws or regulations including as regards taxation, trade barriers, commodity prices, interest rates, and currency exchange rates and controls. In addition, as discussed above, we believe our consolidated credit risk is likely to increase as the global economy remains unsettled.

A decline in our investment performance could reduce our profitability and hinder our ability to pay claims promptly in accordance with our strategy.

We have historically derived a meaningful portion of our income from our invested assets, which are comprised of, among other things, fixed maturity securities, such as bonds, asset-backed securities, mortgage-backed securities, equity securities, and other investments, including but not limited to private equity and private credit investments, bank loan funds and hedge funds. Accordingly, our financial results are subject to a variety of investment risks, including risks relating to general economic conditions, inflation, market volatility, interest rate fluctuations, foreign currency risk, liquidity risk and credit and default risk. The volatility in global financial markets resulting from the COVID-19 pandemic has impacted, and may continue

to impact, the value of our investment portfolio and our strategic investments. See “*The COVID-19 pandemic may adversely impact the value of our investment portfolio and strategic investments, and may affect our ability to access liquidity and capital markets financing.*” Additionally, with respect to certain of our investments, we are subject to pre-payment or reinvestment risk. Our investment portfolio also includes securities with a longer duration, which may be more susceptible to certain of these risks.

The market value of our fixed maturity investments is subject to fluctuation depending on changes in various factors, including prevailing interest rates and credit spreads. Any decline in interest rates, including as a result of recent steps taken by governments throughout the world in responding to the COVID-19 pandemic, or continuation of the current low interest rate environment could reduce our investment yield, which would reduce our overall profitability. Conversely, increases in interest rates could cause the market value of our investment portfolio to decrease, perhaps substantially. Interest rates are highly sensitive to many factors, including governmental monetary policies, domestic and international economic and political conditions and other factors beyond our control. Any measures we take that are intended to manage the risks of operating in a changing interest rate environment may not effectively mitigate such interest rate sensitivity.

A portion of our investment portfolio is allocated to other classes of investments including equity securities and interests in alternative investment vehicles such as catastrophe bonds, private equity investments, private credit investments, senior secured bank loan funds and hedge funds. These other classes of investments are recorded on our consolidated balance sheet at fair value, which is generally established on the basis of the valuation criteria set forth in the governing documents of such investment vehicles. Such valuations may differ significantly from the values that would have been used had ready markets existed for the shares, partnership interests, notes or other securities representing interests in the relevant investment vehicles. We cannot assure you that, if we were forced to sell these assets, we would be able to sell them for the prices at which we have recorded them, and we might be forced to sell them at significantly lower prices. Furthermore, our interests in many of the investment classes described above are subject to restrictions on redemptions and sales which limit our ability to liquidate these investments in the short term. These classes of investments may expose us to market risks including interest rate risk, foreign currency risk, equity price risk and credit risk. The performance of these classes of investments is also dependent on the individual investment managers and the investment strategies. It is possible that the investment managers will leave and/or the investment strategies will become ineffective or that such managers will fail to follow our investment guidelines. Any of the foregoing could result in a material adverse change to our investment performance, and accordingly, adversely affect our financial results.

In addition to the foregoing, we may from time to time re-evaluate our investment approach and guidelines and explore investment opportunities in respect of other asset classes not previously discussed above, including by expanding our relatively small portfolio of direct investments in the equity markets. Any such investments could expose us to systemic and price volatility risk, interest rate risk and other market risks. Any investment in equity securities is inherently volatile. We cannot assure you that such an investment will be profitable and we could lose the value of our investment. Accordingly, any such investment could impact our financial results, perhaps materially, over both the short and the long term.

We may be adversely affected by foreign currency fluctuations.

We routinely transact business in currencies other than the U.S. dollar, our financial reporting currency. Moreover, we maintain a portion of our cash and investments in currencies other than the U.S. dollar and certain of our subsidiaries have non-U.S. dollar functional currencies. Although we generally seek to hedge significant non-U.S. dollar positions, we may, from time to time, experience losses resulting from fluctuations in the values of these foreign currencies, which could cause our consolidated earnings to decrease, or could result in a negative impact to shareholders’ equity. In addition, failure to manage our foreign currency exposures could cause our results of operations to be more volatile. Adverse, unforeseen or rapidly shifting currency valuations in our key markets may magnify these risks over time. The COVID-19 pandemic may also cause significant volatility in foreign currency exchange rates. Significant third-party capital management operations may further complicate our foreign currency operational needs and risk.

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

As a result of concerns about the accuracy of the calculation of LIBOR, a number of British Bankers' Association member banks entered into settlements with certain regulators and law enforcement agencies with respect to the alleged manipulation of LIBOR. Actions by the British Bankers Association, regulators or law enforcement agencies as a result of these or future events, may result in changes to the manner in which LIBOR is determined. Potential changes, or uncertainty related to such potential changes may adversely affect the market for LIBOR-based securities. In addition, changes or reforms to the determination or supervision of LIBOR may result in a sudden or prolonged increase or decrease in reported LIBOR, which could have an adverse impact on the market for LIBOR-based securities.

In addition, the United Kingdom Financial Conduct Authority has announced its desire to phase out the use of LIBOR by the end of 2021, which may affect us adversely. In November, the ICE Benchmark Administration, which currently administers U.S. dollar LIBOR, announced that it plans to cease publication of one week and two month U.S. dollar LIBOR at the end of 2021, but plans to extend the publication of all other U.S. dollar LIBOR settings until 2023. If LIBOR ceases to exist, we may need to renegotiate the terms of certain of our capital securities and credit instruments, which utilize LIBOR as a factor in determining the interest rate, to replace LIBOR with the new standard that is established. The U.S. Federal Reserve has begun publishing a Secured Overnight Funding Rate which is intended to replace U.S. dollar LIBOR. Plans for alternative reference rates for other currencies have also been announced. At this time, it is not possible to predict how markets will respond to these new rates, and the effect that any changes in LIBOR or the extension or discontinuation of LIBOR might have on new or existing financial instruments. As such, the potential effect of any such event on our cost of capital and net investment income cannot yet be determined.

We may be adversely impacted by inflation.

We monitor the risk that the principal markets in which we operate could experience increased inflationary conditions, which would, among other things, cause loss costs to increase, and impact the performance of our investment portfolio. We believe the risks of inflation across our key markets is increasing over the medium to long term. In particular, the steps taken by federal, state and local governments in responding to the COVID-19 pandemic, and the costs of such actions, may lead to higher than expected inflation. The impact of inflation on loss costs could be more pronounced for those lines of business that are considered to be long tail in nature, as they require a relatively long period of time to finalize and settle claims. Changes in the level of inflation also result in an increased level of uncertainty in our estimation of loss reserves, particularly for long tail lines of business. The onset, duration and severity of an inflationary period cannot be estimated with precision.

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

To the extent that our existing capital is insufficient to support our future operating requirements, we may need to raise additional funds through financings or limit our growth. Our operations are subject to significant volatility in capital due to our exposure to potentially significant catastrophic events. Any further equity, debt or hybrid financings, or capacity needed for letters of credit, if available at all, may be on terms that are unfavorable to us. Our ability to raise such capital successfully would depend upon the facts and circumstances at the time, including our financial position and operating results, market conditions, and applicable legal issues. As the COVID-19 pandemic continues, it is likely that the strain on financial markets will increase, and that access to public capital markets and private, third-party capital may become constrained, more expensive than in recent periods, or contain more onerous terms and conditions. See "*The COVID-19 pandemic may adversely impact the value of our investment portfolio and strategic investments, and may affect our ability to access liquidity and capital markets financing.*" We are also exposed to the risk that the contingent capital facilities we have in place may not be available as expected. If we are unable to obtain adequate capital when needed, our business, results of operations and financial condition would be adversely affected.

In addition, we are exposed to the risk that we may be unable to raise new capital for our joint ventures, managed funds and other private alternative investment vehicles, which would reduce our future fee income and market capacity and thus negatively affect our results of operations and financial condition. For

example, it is possible that substantial losses ceded to the alternative capital sector over a period of years, and restraints on capital return and maintenance of collateral for prior loss periods by a number of market participants, may contribute to a reduction in investor appetite to this product class in the near term.

We are subject to cybersecurity risks and may incur increasing costs in an effort to minimize those risks.

Publicly reported instances of cyber security threats and incidents have increased in recent years, and we may be subject to heightened cyber-related risks. The extended period of remote work arrangements due to the COVID-19 pandemic could exacerbate cybersecurity risks. Our business depends on the proper functioning and availability of our information technology platform, including communications and data processing systems and our proprietary systems. We are also required to effect electronic transmissions with third parties including brokers, clients, vendors and others with whom we do business, and with our Board of Directors. We believe we have implemented appropriate security measures, controls and procedures to safeguard our information technology systems and to prevent unauthorized access to such systems and any data processed or stored in such systems, and we periodically evaluate and test the adequacy of such systems, measures, controls and procedures and perform third-party risk assessments; however, there can be no guarantee that such systems, measures, controls and procedures will be effective, that we will be able to establish secure capabilities with all of third parties, or that third parties will have appropriate controls in place to protect the confidentiality of our information. Security breaches could expose us to a risk of loss or misuse of our information, litigation and potential liability.

In addition, cyber incidents that impact the availability, reliability, speed, accuracy or other proper functioning of our systems could have a significant impact on our operations, and potentially on our results. We protect our information systems with physical and electronic safeguards considered appropriate by management. However, it is not possible to protect against every potential power loss, telecommunications failure, cybersecurity attack or similar event that may arise. Moreover, the safeguards we use are subject to human implementation and maintenance and to other uncertainties. Although we attempt to keep personal, proprietary and other sensitive information confidential, we may be impacted by third parties who may not have or use appropriate controls to protect such information.

We may not have the resources or technical sophistication to anticipate or prevent rapidly evolving types of cyberattacks. A significant cyber incident, including system failure, security breach, disruption by malware or other damage could interrupt or delay our operations, result in a violation of applicable cybersecurity and privacy and other laws, damage our reputation, cause a loss of customers or give rise to monetary fines and other penalties, which could be significant. While management is not aware of a cybersecurity incident that has had a material effect on our operations, there can be no assurances that a cyber incident that could have a material impact on us will not occur in the future.

Our disaster recovery and business continuity plans involve arrangements with our off-site, secure data centers and cloud infrastructure. We cannot assure you that we will be able to efficiently recover our key systems in accordance with these plans in the event that our primary systems are unavailable due to various scenarios, such as natural disasters or that we have prepared for every disaster or every scenario which might arise in respect of a disaster for which we have prepared, and cannot assure you our efforts in respect of disaster recovery will succeed, or will be sufficiently rapid to avoid harm to our business.

The cybersecurity regulatory environment is evolving, and it is possible that the costs of complying with new or developing regulatory requirements will increase. We are also required to comply with cybersecurity laws in other jurisdictions, in addition to similar laws and regulations that are being or may be enacted in the future in other jurisdictions in which we operate. In addition, we 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 our personnel. Failure to comply with these obligations can give rise to monetary fines and other penalties, which could be significant. See “Part I, Item 1. Business—Information Technology” for additional information related to information technology and cybersecurity.

Acquisitions or strategic investments we have made or may make could turn out to be unsuccessful.

As part of our strategy, we frequently monitor and analyze opportunities to acquire or make a strategic investment in new or other businesses we believe will not detract from our core operations. The negotiation of potential acquisitions or strategic investments as well as the integration of an acquired business or new personnel, could result in a substantial diversion of management resources.

Future acquisitions could likewise 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. As we pursue or consummate a strategic transaction or investment, we may value the acquired or funded company or operations incorrectly, fail to integrate the acquired operations appropriately into our own operations, fail to successfully manage our operations as our product and geographical diversity increases, expend unforeseen costs during the acquisition or integration process, or encounter other unanticipated risks or challenges. If we succeed in consummating a strategic investment, we may fail to value it accurately or divest it or otherwise realize the value which we originally invested or have subsequently reflected in our consolidated financial statements. Any failure by us to effectively limit such risks or implement our acquisitions or strategic investment strategies could have a material adverse effect on our business, financial condition or results of operations.

The loss of key senior members of management could adversely affect us.

Our success depends in substantial part upon our ability to attract and retain our senior officers. The loss of services of members of our senior management team and the uncertain transition of new members of our senior management team may strain our ability to execute our strategic initiatives. Our operations could be disrupted, for example, due to the effects of the COVID-19 pandemic to the extent that key members of senior management are unable to work due to illness, government actions, including travel restrictions, or otherwise. The loss of one or more of our senior officers could adversely impact our business, by, for example, making it more difficult to retain customers, attract or maintain our capital support, or meet other needs of our business, which depend in part on the service of the departing officer. We may also encounter unforeseen difficulties associated with the transition of members of our senior management team to new or expanded roles necessary to execute our strategic and tactical plans from time to time.

In addition, our ability to execute our business strategy is dependent on our ability to attract and retain a staff of qualified underwriters and service personnel. The location of our global headquarters in Bermuda may impede our ability to recruit and retain highly skilled employees, and it is possible that the ongoing COVID-19 pandemic will increase these complexities. Under Bermuda law, non-Bermudians (other than spouses of Bermudians, holders of Permanent Residents' Certificates and holders of Working Residents' Certificates) may not engage in any gainful occupation in Bermuda without a valid government work permit. Some members of our senior management are working in Bermuda under work permits that will expire over the next several years. The Bermuda government could refuse to extend these work permits, and no assurances can be given that any work permit will be issued or, if issued, renewed upon the expiration of the relevant term. If any of our senior officers or key contributors were not permitted to remain in Bermuda, or if we experienced delays or failures to obtain permits for a number of our professional staff, our operations could be disrupted and our financial performance could be adversely affected as a result.

We are exposed to risks in connection with our management of capital on behalf of investors in joint ventures or other entities we manage.

Our operating subsidiaries owe certain legal duties and obligations (including reporting, governance and allocation obligations) to third-party investors and are subject to a variety of increasingly complex laws and regulations relating to the management of third-party capital. Complying with these obligations, laws and regulations requires significant management time and attention. Although we continually monitor our compliance policies and procedures, faulty judgments, simple errors or mistakes, or the failure of our personnel to adhere to established policies and procedures, could result in our failure to comply with applicable obligations, laws or regulations, which could result in significant liabilities, penalties or other losses to us and seriously harm our business and results of operations.

In addition, in furtherance of our goal of matching well-structured risk with capital whose owners would find the risk-return trade-off attractive, we may invest capital in new and complex ventures with which we do not

have a significant amount of experience, which may increase our exposure to legal, regulatory and reputational risks.

In addition, our third-party capital providers may, in general, redeem their interests in our joint ventures and managed funds at certain points in time, which could materially impact the financial condition of such joint ventures and managed funds, and could in turn materially impact our financial condition and results of operations.

Certain of our joint venture and managed fund capital providers provide significant capital investment and other forms of capital support in respect of our joint ventures and managed funds. The loss, or alteration in a negative manner, of any of this capital support could be detrimental to our financial condition and results of operations. Moreover, we can provide no assurance that we will be able to attract and raise additional third-party capital for our existing joint ventures and managed funds or for potential new joint ventures and managed funds and therefore we may forego existing and/or potentially attractive fee income and other income generating opportunities.

We may from time to time modify our business and strategic plan, and these changes could adversely affect us and our financial condition.

We regularly evaluate our business plans and strategies, which often results in changes to our business plans and initiatives. Given the increasing importance of strategic execution in our industry, we are subject to increasing risks related to our ability to successfully implement our evolving plans and strategies, particularly as the pace of change in our industry continues to increase. Changing plans and strategies requires significant management time and effort and may divert management's attention from our core and historically successful operations and competencies. We routinely evaluate potential investments and strategic transactions, but there can be no assurance we will successfully consummate any such transaction, or that a consummated transaction will succeed financially or strategically. Moreover, modifications we undertake to our operations may not be immediately reflected in our financial statements. Therefore, risks associated with implementing or changing our business strategies and initiatives, including risks related to developing or enhancing our operations, controls and other infrastructure, may not have an impact on our publicly reported results until many years after implementation. Our failure to carry out our business plans may have an adverse effect on our long-term results of operations and financial condition.

Our current business strategy focuses on writing reinsurance, with limited writing of primary insurance, and our acquisition of TMR further concentrated our strategy on reinsurance. In contrast, over the last several years, in connection with consolidation in the insurance and reinsurance industries, certain of our competitors increased the amount of primary insurance they are writing, both on an absolute and relative basis. There can be no assurance that our business strategy of focusing on writing reinsurance, with limited writing of primary insurance, will prove prudent as compared to the strategies of our competitors.

Our business is subject to operational risks, including systems or human failures.

We are subject to operational risks including fraud, employee errors, failure to document transactions properly or to obtain proper internal authorization, failure to comply with regulatory requirements or obligations under our agreements, failure of our service providers, such as investment custodians, actuaries, information technology providers, etc., to comply with our service agreements, or information technology failures. Losses from these risks may occur from time to time and may be significant. An extended period of remote work arrangements could increase or introduce new operational risk and adversely affect our ability to manage our business.

The preparation of our consolidated financial statements requires us to make many estimates and judgments.

The preparation of consolidated financial statements requires us to make many estimates and judgments that affect the reported amounts of assets, liabilities (including claims and claim expense reserves), shareholders' equity, revenues and expenses, and related disclosures. On an ongoing basis, we evaluate our estimates, including those related to premiums written and earned, our net claims and claim expenses, investment valuations, income taxes and those estimates used in our risk transfer analysis for reinsurance transactions. We base our estimates on historical experience, where possible, and on various other assumptions we believe to be reasonable under the circumstances, which form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our judgments and estimates may not reflect our actual results. We utilize actuarial models as well as historical

insurance industry loss development patterns to establish our claims and claim expense reserves. Actual claims and claim expenses paid may deviate, perhaps materially, from the estimates reflected in our financial statements. For more details on our estimates and judgments, see “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Critical Accounting Estimates.”

The determination of impairments taken is highly subjective and could materially impact our financial position or results of operations.

The determination of impairments taken on our investments, investments in other ventures, goodwill and other intangible assets and loans varies by type of asset and is based upon our periodic evaluation and assessment of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available, including as a result of the ongoing and evolving COVID-19 pandemic. Management updates its evaluations regularly and reflects impairments in operations as such evaluations are revised. There can be no assurance that our management has accurately assessed the level of impairments taken in our financial statements. Furthermore, management may determine that impairments are needed in future periods and any such impairment will be recorded in the period in which it occurs, which could materially impact our financial position or results of operations. Historical trends may not be indicative of future impairments.

The covenants in our debt agreements limit our financial and operational flexibility, which could have an adverse effect on our financial condition.

We have incurred indebtedness, and may incur additional indebtedness in the future. Our indebtedness primarily consists of publicly traded notes, letters of credit and a revolving credit facility. For more details on our indebtedness, see “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Capital Resources.”

The agreements governing our indebtedness contain covenants that limit our ability and the ability of certain of our subsidiaries to make particular types of investments or other restricted payments, sell or place a lien on our or their respective assets, merge or consolidate. Certain of these agreements also require us or our subsidiaries to maintain specific financial ratios or contain cross-defaults to our other indebtedness. If we or our subsidiaries fail to comply with these covenants or meet these financial ratios, the noteholders or the lenders could declare a default and demand immediate repayment of all amounts owed to them or, where applicable, cancel their commitments to lend or issue letters of credit or, where the reimbursement obligations are unsecured, require us to pledge collateral or, where the reimbursement obligations are secured, require us to pledge additional or a different type of collateral.

Risks Related to Legal and Regulatory Matters

The regulatory systems under which we operate and potential changes thereto could restrict our ability to operate, increase our costs, or otherwise adversely impact us.

Certain of our operating subsidiaries are not licensed or admitted in any jurisdiction except Bermuda, conduct business only from their principal offices in Bermuda and do not maintain offices in the U.S. The insurance and reinsurance regulatory framework continues to be subject to increased scrutiny in many jurisdictions, including the U.S. and Europe. If our Bermuda insurance or reinsurance operations become subject to the insurance laws of any state in the U.S., jurisdictions in the EU, or elsewhere, we could face challenges to the future operations of these companies.

Moreover, we could be put at a competitive disadvantage in the future with respect to competitors that are licensed and admitted in U.S. jurisdictions. Among other things, jurisdictions in the U.S. do not permit insurance companies to take credit for reinsurance obtained from unlicensed or non-admitted insurers on their statutory financial statements unless security is posted. Our contracts generally require us to post a letter of credit or provide other security (e.g., through a multi-beneficiary reinsurance trust). In order to post these letters of credit, issuing banks generally require collateral. It is possible that the EU or other countries might adopt a similar regime in the future, or that U.S. or European regulations could be altered in a way that treats Bermuda-based companies disparately. It is possible that individual jurisdiction or cross border regulatory developments could adversely differentiate Bermuda, the jurisdiction in which we are subject to group supervision, or could exclude Bermuda-based companies from benefits such as market access, mutual recognition or reciprocal rights made available to other jurisdictions, which could adversely impact

us, perhaps significantly. Any such development, or our inability to post security in the form of letters of credit or trust funds when required, could significantly and negatively affect our operations.

As a result of the acquisition of TMR, we became subject to the requirements of certain regulatory agencies and bodies to which our operations were not previously subject, including in New York, Switzerland and Australia, resulting in additional costs to us. In addition, we could be required to allocate considerable time and resources to comply with any new or additional regulatory requirements in any of the jurisdictions in which we operate, including Bermuda, Switzerland, Maryland and the U.K. Any such requirements could impact the operations of our insurance and/or non-insurance subsidiaries, result in increased costs for us and impact our financial condition. In addition, the COVID-19 pandemic has further heightened regulatory scrutiny on our industry, and the costs of complying with related regulatory inquiries could be significant. Furthermore, we could be adversely affected if a regulatory authority believed we had failed to comply with applicable law or regulations.

Our current or future business strategy could cause one or more of our currently unregulated subsidiaries to become subject to some form of regulation. Any failure to comply with applicable laws could result in the imposition of significant restrictions on our ability to do business, and could also result in fines and other sanctions, any or all of which could adversely affect our financial results and operations.

We face risks related to changes in Bermuda law and regulations, and the political environment in Bermuda.

We are incorporated in Bermuda and many of our operating companies are domiciled in Bermuda. Therefore, our exposure to potential changes in Bermuda law and regulation that may have an adverse impact on our operations, such as the imposition of tax liability, increased regulatory supervision or changes in regulation is heightened. The Bermuda insurance and reinsurance regulatory framework recently has become subject to increased scrutiny in many jurisdictions, including in the U.S., in various states within the U.S. and in the EU. We are unable to predict the future impact on our operations of changes in Bermuda laws and regulations to which we are or may become subject.

In addition, we are subject to changes in the political environment in Bermuda, which could make it difficult to operate in, or attract talent to, Bermuda. For example, Bermuda is a small jurisdiction and may be disadvantaged in participating in global or cross border regulatory matters as compared with larger jurisdictions such as the U.S. or the leading EU and Asian countries. In addition, Bermuda, which is currently an overseas territory of the U.K., may consider changes to its relationship with the U.K. in the future. These changes could adversely affect Bermuda or the international reinsurance market focused there, either of which could adversely impact us commercially.

Like many of the jurisdictions in which we operate, Bermuda has been impacted by the ongoing COVID-19 pandemic, including substantial economic and fiscal impacts. The Government of Bermuda has announced a comprehensive legislative and policy review intended to mitigate these impacts and accelerate economic growth. While no specific proposals have been announced at this time, it is possible we could be adversely impacted by, for example, changes to tax or immigration policy.

Because we are a holding company, we are dependent on dividends and payments from our subsidiaries.

As a holding company with no direct operations, we rely on our investment income, cash dividends and other permitted payments from our subsidiaries to make principal and interest payments on our debt and to pay dividends to our shareholders. From time to time, we may not have sufficient liquid assets to meet these obligations. Regulatory restrictions on the payment of dividends under Bermuda law, Swiss law and various U.S. laws regulate the ability of our subsidiaries to pay dividends. If our subsidiaries are restricted from paying dividends to us, we may be unable to pay dividends to our shareholders or to repay our indebtedness. In addition, in response to the COVID-19 pandemic, certain jurisdictions may be considering imposing dividend restrictions on insurance companies, which, if enacted, would potentially impact liquidity for holding companies who have insurance subsidiaries in those jurisdictions. See *“The COVID-19 pandemic may adversely impact the value of our investment portfolio and strategic investments, and may affect our ability to access liquidity and capital markets financing.”*

Some aspects of our corporate structure may discourage third-party takeovers and other transactions or prevent the removal of our current board of directors and management.

Some provisions of our amended and restated bye-laws (“Bye-laws”) may discourage third parties from making unsolicited takeover bids or prevent the removal of our current board of directors and management. In particular, our Bye-Laws prohibit transfers of our capital shares if the transfer would result in a person owning or controlling shares that constitute 9.9% or more of any class or series of our shares, unless otherwise waived at the discretion of the Board. In addition, our Bye-Laws reduce the total voting power of any shareholder owning, directly or indirectly, beneficially or otherwise, more than 9.9% of our common shares to not more than 9.9% of the total voting power of our shares unless otherwise waived at the discretion of the Board. These provisions may have the effect of deterring purchases of large blocks of our common shares or proposals to acquire us, even if our shareholders might deem these purchases or acquisition proposals to be in their best interests.

In addition, our Bye-Laws provide for, among other things:

- a classified Board, whose size is generally fixed and whose members may be removed by the shareholders only for cause upon a 66 2/3% vote;
- restrictions on the ability of shareholders to nominate persons to serve as directors, submit resolutions to a shareholder vote and requisition special general meetings;
- a large number of authorized but unissued shares which may be issued by the Board without further shareholder action; and
- a 66 2/3% shareholder vote to amend, repeal or adopt any provision inconsistent with several provisions of the Bye-Laws.

These Bye-Law provisions make it more difficult to acquire control of us by means of a tender offer, open market purchase, proxy contest or otherwise and could discourage a prospective acquirer from making a tender offer or otherwise attempting to obtain control of us. In addition, these Bye-Law provisions could prevent the removal of our current Board of Directors and management. To the extent these provisions discourage takeover attempts, they could deprive shareholders of opportunities to realize takeover premiums for their shares or could depress the market price of the shares.

In addition, many jurisdictions in which our insurance and reinsurance subsidiaries operate, including Maryland, New York, the U.K., Switzerland and Australia, have laws and regulations that require regulatory approval of a change in control of an insurer or an insurer’s holding company. Where such laws apply to us and our subsidiaries, there can be no effective change in our control unless the person seeking to acquire control has filed a statement with the regulators and has obtained prior approval for the proposed change from such regulators. Under these laws, control is typically presumed when a person acquires, directly or indirectly, 10% or more of the voting power of the insurance company or its parent, although this presumption is rebuttable. Therefore, a person may not acquire 10% or more of our common shares without the prior approval of the applicable insurance regulators.

Investors may have difficulty in serving process or enforcing judgments against us in the U.S.

We are a Bermuda company. In addition, certain of our officers and directors reside in countries outside the U.S. All or a substantial portion of our assets and the assets of these officers and directors are or may be located outside the U.S. Investors may have difficulty effecting service of process within the U.S. on our directors and officers who reside outside the U.S. or recovering against us or these directors and officers on judgments of U.S. courts based on civil liabilities provisions of the U.S. federal securities laws whether or not we appoint an agent in the U.S. to receive service of process.

Recent or future U.S. federal or state legislation may impact the private markets and decrease the demand for our property reinsurance products, which would adversely affect our business and results of operations.

Legislation adversely impacting the private markets could be enacted on a state, regional or federal level. In the past, federal bills have been proposed in Congress which would, if enacted, create a federal reinsurance backstop or guarantee mechanism for catastrophic risks, including those we currently insure and reinsure in the private markets. These measures were not enacted by Congress; however, new bills to create a federal catastrophe reinsurance program to back up state insurance or reinsurance programs, or to

establish other similar or analogous funding mechanisms or structures, may be introduced. We believe that such legislation, if enacted, could contribute to the growth, creation or alteration of state insurance entities in a manner that would be adverse to us and to market participants more generally. If enacted, bills of this nature would likely further erode the role of private market catastrophe reinsurers and could adversely impact our financial results, perhaps materially. Moreover, we believe that numerous modeled potential catastrophes could exceed the actual or politically acceptable bonded capacity of Citizens Property Insurance Corporation (“Citizens”) and of the Florida Hurricane Catastrophe Fund (“FHCF”). This could lead either to a severe dislocation or the necessity of federal intervention in the Florida market, either of which would adversely impact the private insurance and reinsurance industry.

From time to time, the state of Florida has enacted legislation altering the size and the terms and operations of the FHCF and the state sponsored insurer, Citizens. For example, in 2007 legislation expanded the FHCF’s provision of below-market rate reinsurance to up to \$28.0 billion per season and expanded the ability of Citizens to compete with private insurance companies and other companies that cede business to us, which reduced the role of the private insurance and reinsurance markets in Florida. Much of the impact of the 2007 legislation was repealed over time. At this time, we cannot assess the likelihood of other related legislation passing, or the precise impact on us, our clients or the market should any such legislation be adopted. Because we are one of the largest providers of catastrophe-exposed coverage globally and in Florida, adverse legislation such as the 2007 bill, or the weakened financial position of Florida insurers which resulted in 2007 and could result from future legislation or other occurrences, may have a greater adverse impact on us than it would on other reinsurance market participants. In addition, other states, particularly those with Atlantic or Gulf Coast exposures or seismic exposures (such as California), may enact new or expanded legislation based on the prior Florida legislation, or otherwise, that would diminish aggregate private market demand for our products.

It is also possible that the economic uncertainty resulting from the COVID-19 pandemic could cause some governments, including cities, counties, states, and national governments, to look at risk transfer as a means to create budgeting certainty. These initiatives could create public entity risk transfer opportunities in the U.S. and globally. However, given the early stages of these proposals, it is difficult to predict at this time the impact they may have on our business in the future, and we cannot assure you that the terms of any such facilities would be attractive.

See “*Legislative, regulatory, judicial or social influences related to the COVID-19 pandemic may affect our financial performance and our ability to conduct our business*” for a further discussion of how these risks are impacted by the COVID-19 pandemic.

Other political, regulatory and industry initiatives by state and international authorities could adversely affect our business.

The insurance and reinsurance regulatory framework is subject to heavy scrutiny by the U.S. and individual state governments, as well as an increasing number of international authorities, and we believe it is likely there will be increased regulatory intervention in our industry in the future. For example, the U.S. federal government has increased its scrutiny of the insurance regulatory framework in recent years (including as specifically addressed in the Dodd-Frank Act), and some states, including Maryland and New York, have enacted laws that increase state regulation of insurance and reinsurance companies and holding companies. Moreover, the NAIC, which is an association of the insurance commissioners of all 50 states and the District of Columbia, and state insurance regulators regularly reexamine existing laws and regulations. We could also be adversely affected by proposals or enacted legislation to expand the scope of coverage under existing policies for perils such as hurricanes or earthquakes or for a pandemic disease outbreak, mandate the terms of insurance and reinsurance policies, expand the scope of the Federal Insurance Office or establish a new federal insurance regulator, revise laws, regulations, or contracts under which we operate, disproportionately benefit the companies of one country over those of another or repeal or diminish the insurance company antitrust exemption from the McCarran Ferguson Act. See also “*Legislative, regulatory, judicial or social influences related to the COVID-19 pandemic may affect our financial performance and our ability to conduct our business.*” Our jurisdiction of Bermuda is also subject to increasing scrutiny by political bodies outside of Bermuda, including the EU Code of Conduct Group. See “*The OECD and the EU may pursue measures that might increase our taxes and reduce our net income and increase our reporting requirements.*”

Due to this increased legislative and regulatory scrutiny of the reinsurance industry and Bermuda, our cost of compliance with applicable laws may increase, which could result in a decrease to both our profitability and the amount of time that our senior management allocates to running our day-to-day operations.

Further, as we continue to expand our business operations to different regions of the world outside of Bermuda, we are increasingly subject to new and additional regulations with respect to our operations, including, for example, laws relating to anti-corruption and anti-bribery, which have received increased scrutiny in recent years.

The changes in the administration following the 2020 U.S. presidential and congressional elections could have further impacts on our industry if new legislative or regulatory reforms are adopted. We are unable to predict at this time the effect of any such reforms.

Our business is subject to certain 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 sanctions and anti-bribery laws and regulations of the U.S. and other jurisdictions. U.S. laws and regulations that may be applicable to us in certain circumstances include the economic trade sanctions laws and regulations administered by the U.S. Treasury's Office of Foreign Assets Control as well as certain laws administered by the U.S. Department of State. The sanctions laws and regulations of non-U.S. jurisdictions in which we operate may differ to some degree from those of the U.S. and these differences may additionally expose us to sanctions violations. In addition, we are subject to the Foreign Corrupt Practices Act and other anti-bribery laws that generally prohibit corrupt payments or improper gifts to non-U.S. governments or officials. 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 intermediary could fail to comply with applicable laws and regulations. In such event, we could be exposed to civil penalties, criminal penalties and other sanctions, including fines or other punitive actions. In addition, such violations could damage our business and/or our reputation. Such criminal or civil sanctions, penalties, other sanctions, and damage to our business and/or reputation could adversely affect our financial condition and results of operations.

Increasing barriers to free trade and the free flow of capital could adversely affect the reinsurance industry and our business.

Political initiatives to restrict free trade and close markets, for example by renegotiating or terminating existing bilateral and multilateral trade arrangements, could adversely affect the reinsurance industry and our business. The reinsurance industry is disproportionately impacted by restraints on the free flow of capital and risk because the value it provides depends on our ability to globally diversify risk.

Regulatory regimes and changes to accounting rules may adversely impact financial results irrespective of business operations.

Accounting standards and regulatory changes may require modifications to our accounting principles, both prospectively and for prior periods, and such changes could have an adverse impact on our financial results. Required modification of our existing principles, and new disclosure requirements, could have an impact on our results of operations and increase our expenses in order to implement and comply with any new requirements.

The exit by the U.K. from the EU ("Brexit") could adversely affect our business.

The U.K. left the EU on January 31, 2020 pursuant to the terms of a withdrawal agreement concluded between the U.K. government and the EU Council (the "Withdrawal Agreement"). The Withdrawal Agreement allowed for a transition period during which the U.K.'s trading relationship with the EU remained largely unchanged while the future terms of that relationship were being negotiated. That transition period has now ended, and in December 2020, the U.K. and the EU announced that they had struck a new bilateral trade and cooperation deal governing certain aspects of the future relationship between the U.K. and the EU (the "Trade and Cooperation Agreement"), which sets out the principles of the relationship between the EU and the U.K. following the end of the transition period. The European Commission has proposed to apply the Trade and Cooperation Agreement on a provisional basis until February 28, 2021, by which time the Trade and Cooperation Agreement must be approved by the European Parliament.

The Trade and Cooperation Agreement provides clarity in respect of the future trade in certain goods and services between the U.K. and the EU. However, the Trade and Cooperation Agreement does not cover all aspects of the future relationship between the U.K. and EU. For example, matters relating to the equivalence of financial services regulation or the adequacy of U.K. data protection rules are not covered by the Trade and Cooperation Agreement. Therefore, there remain unavoidable uncertainties related to Brexit, and the new relationship between the U.K. and EU, which could cause volatility in currency exchange rates, in interest rates, and in EU, U.K. or worldwide political, regulatory, economic or market conditions. This could contribute to instability in political institutions, regulatory agencies, and financial markets. These uncertainties could increase the volatility of, or reduce, our investment results in particular periods or over time.

Notwithstanding the Trade and Cooperation Agreement, in particular, the economies of the U.K. and EU Member States, and individual businesses operating in one or more of those jurisdictions, may be adversely affected by the restrictions on the ability to provide cross-border services from the U.K. into the EU and vice versa, the introduction of trade barriers, customs checks and/or duties, changes in tax, restrictions on the movements of employees and restrictions on the transfer of personal data. In addition, there are likely to be changes in the legal rights and obligations of commercial parties across all industries, particularly in the services sector (including financial services). Any issues related to the adoption and interpretation of the Trade and Cooperation Agreement could adversely and significantly affect European or worldwide economic or market conditions. Any of these effects of Brexit, and others which cannot be anticipated could adversely affect our results of operations or financial condition.

Risks Related to Taxation

U.S. taxing authorities could contend that one or more of our Bermuda subsidiaries is subject to U.S. corporate income tax, as a result of changes in laws or regulations, or otherwise.

If the IRS were to contend successfully that we or one or more of our Bermuda subsidiaries is engaged in a trade or business in the U.S., each entity engaged in a U.S. trade or business would, to the extent not exempted from tax by the U.S.-Bermuda income tax treaty, be subject to U.S. corporate income tax on the portion of its net income treated as effectively connected with a U.S. trade or business, as well as the U.S. corporate branch profits tax. If we or one or more of our Bermuda subsidiaries were ultimately held to be subject to taxation, our earnings would correspondingly decline.

In addition, benefits of the U.S.-Bermuda income tax treaty which may limit any tax to income attributable to a permanent establishment maintained by one or more of our Bermuda subsidiaries in the U.S. are only available to a subsidiary if more than 50% of its shares are beneficially owned, directly or indirectly, by individuals who are Bermuda residents or U.S. citizens or residents. Our Bermuda subsidiaries may not be able to continually satisfy, or establish to the IRS that they satisfy, this beneficial ownership test. Finally, it is unclear whether the U.S.-Bermuda income tax treaty (assuming satisfaction of the beneficial ownership test) applies to income other than premium income, such as investment income.

While we have maintained our rigorous tax-related operating protocols during the ongoing COVID-19 pandemic, it is possible that ongoing severe travel restrictions may give rise to substantial operating challenges should current conditions persist.

Recently enacted U.S. tax reform legislation, as well as possible future tax reform legislation and regulations, could reduce our access to capital, decrease demand for our products and services, impact our shareholders or investors in our joint ventures or other entities we manage or otherwise adversely affect us.

U.S. tax reform legislation, commonly referred to as the Tax Cuts and Jobs Act (the "Tax Bill"), was signed into law on December 22, 2017. The Tax Bill amends a range of U.S. federal tax rules applicable to individuals, businesses and international taxation, including, among other things, by altering the current taxation of insurance premiums ceded from a United States domestic corporation to any non-U.S. affiliate. For example, the Tax Bill includes a new base erosion anti-avoidance tax (the "BEAT") that would have substantially altered the taxation of affiliate reinsurance between our operating affiliates which are subject to U.S. taxation and our non-U.S. affiliates which are not. We believe those transactions would have become economically unfeasible under the BEAT and terminated them as of the 2017 year end. While these transactions were not significant for us, on an industry-wide basis for specific market participants the

impacts could be more material, and it is possible that over time the BEAT may result in increased prices for certain reinsurance or insurance products, which could cause a decrease in demand for these products and services due to limitations on the available resources of our clients or their underlying insureds.

The Tax Bill increased the likelihood that we or any of our non-U.S. subsidiaries or any entity managed by us will be deemed a “controlled foreign corporation” (“CFC”) within the meaning of the Internal Revenue Code for U.S. federal tax purposes. Specifically, the Tax Bill expands the definition of “U.S. shareholder” for CFC purposes to include “U.S. persons” (as defined herein) who own 10% or more of the value of a foreign corporation’s shares, rather than only looking to voting power held. As a result, the “voting cut-back” provisions included in our By-laws that limit the voting power of any shareholder to 9.9% of the total voting power of our capital stock will be ineffective in avoiding “U.S. shareholder” status for U.S. persons who own 10% or more of the value of our shares. The Tax Bill also expands certain attribution rules for stock ownership in a way that would cause foreign subsidiaries in a foreign parented group that includes at least one U.S. subsidiary to be treated as CFCs. In the event a corporation is characterized as a CFC, any “U.S. shareholder” of the CFC is required to include its pro rata share of certain insurance and related investment income in income for a taxable year, even if such income is not distributed. In addition, U.S. tax exempt entities subject to the unrelated business taxable income (“UBTI”) rules that own 10% or more of the value of our non-U.S. subsidiaries or other entities managed by us that are characterized as CFCs may recognize UBTI with respect to such investment.

In addition to changes in the CFC rules, the Tax Bill contains modifications to certain provisions relating to passive foreign investment company (“PFIC”) status that could, for example, discourage U.S. persons from investing in our joint ventures or other entities we manage. The Tax Bill makes it more difficult for a non-U.S. insurance company to avoid PFIC status under an exception for certain non-U.S. insurance companies engaged in the active conduct of an insurance business. The Tax Bill limits this exception to a non-U.S. insurance company that would be taxable as an insurance company if it were a U.S. corporation and that maintains insurance liabilities of more than 25% of such company’s assets for a taxable year (or, alternatively, maintains insurance liabilities that at least equal 10% of its assets, is predominantly engaged in an insurance business and it satisfies a facts and circumstances test that requires a showing that the failure to exceed the 25% threshold is due to runoff-related or rating-related circumstances).

Further, the U.S. Treasury and the IRS issued certain final and proposed regulations in 2020 that are intended to clarify the application of this insurance company exception to the classification of a non-U.S. insurer as a PFIC and provide guidance on a range of issues relating to PFICs, including the application of the look-through rule, the treatment of income and assets of certain U.S. insurance subsidiaries for purposes of the look-through rule and the extension of the look-through rule to 25% or more owned partnerships. The 2020 regulations define insurance liabilities for purposes of the reserve test, tighten the reserve test and the statutory cap on insurance liabilities and provide guidance on the runoff-related and rating-related circumstances for purposes of qualifying as a qualifying insurance corporation under the alternative test (including tightening the scope of non-U.S. insurers that can qualify for the rating-related circumstances test). The 2020 regulations also propose that a non-U.S. insurer will qualify for the insurance company exception only if a factual requirements test or an active conduct percentage test is satisfied. The factual requirements test will be met if the non-U.S. insurer’s officers and employees perform its substantial managerial and operational activities on a regular and continuous basis with respect to its core functions and virtually all of the active decision making functions relevant to underwriting on a contract-by-contract basis (taking into account activities of officers and employees of certain related entities in certain cases). The active conduct percentage test will be satisfied if (1) the total costs incurred by the non-U.S. insurer with respect to its officers and employees (including officers and employees of certain related entities) for services related to core functions (other than investment activities) equal at least 50% of the total costs incurred for all such services and (2) the non-U.S. insurer’s officers and employees oversee any part of the non-U.S. insurer’s core functions, including investment management, that are outsourced to an unrelated party. Services provided by officers and employees of certain related entities are only taken into account in the numerator of the active conduct percentage if the non-U.S. insurer exercises regular oversight and supervision over such services and compensation arrangements meet certain requirements. The 2020 regulations also propose that a non-U.S. insurer with no or a nominal number of employees that relies exclusively or almost exclusively upon independent contractors (other than certain related entities) to perform its core functions and certain insurance securitization vehicles and insurance-linked securities funds will not be treated as engaged in the active conduct of an insurance business. While we believe that

we should not be characterized as a PFIC for the foreseeable future, we cannot assure you that this will continue to be the case in future years. There is a significant risk that joint venture entities managed by us may be characterized as PFICs as there is a significant risk that they may not satisfy the reserve test contained in the final 2020 regulations or the factual requirements or active conduct percentage tests if those tests contained in the proposed 2020 regulations are finalized in their current form.

We are unable to predict all of the ultimate impacts of the Tax Bill and other proposed tax reform regulations and legislation on our business and results of operations. It is possible the IRS will construe the intent of the Tax Bill as having been to reduce or eliminate certain perceived tax advantages of companies (including insurance companies) that have legal domiciles outside the U.S., and its interpretation, enforcement actions or regulatory changes could increase the impact of the Tax Bill beyond prevailing current assessments or our own estimates. Further, it is possible that other legislation could be introduced and enacted in the future that would have an adverse impact on us. These events and trends towards more punitive taxation of cross border transactions could in the future materially adversely impact the insurance and reinsurance industry and our own results of operations by increasing taxation of certain activities and transactions in our industry. Accordingly, we cannot reliably estimate what the potential impact of any such changes could be to us or our non-U.S. subsidiaries or any other entities managed by us and our and their respective sources of capital, investors or the market generally, however, it is possible these changes could materially adversely impact our results of operations.

The OECD and the EU may pursue measures that might increase our taxes and reduce our net income and increase our reporting requirements.

The OECD has published reports and launched a global dialog among member and non-member countries on measures to limit harmful tax competition. These measures are largely directed at counteracting the effects of jurisdictions perceived by the OECD to be tax havens or offering preferential tax regimes. The OECD has not listed Bermuda as an uncooperative tax haven jurisdiction because Bermuda has committed to eliminating harmful tax practices and to embracing international tax standards for transparency, exchange of information and the elimination of any aspects of the regimes for financial and other services that attract business with no substantial domestic activity. We are not able to predict what changes will arise from the commitment to the OECD or whether such changes will subject us to additional taxes. In 2017, the EU initiated similar measures and identified certain jurisdictions, including Bermuda, which it considered had tax systems that facilitated offshore structuring by attracting profits without commensurate economic activity. The EU did temporarily add Bermuda to its “blacklist” of non-cooperative jurisdictions for tax purposes between March 2019 and May 2019, when Bermuda adopted economic substance legislation that the EU deemed compliant with its requirements. There were no immediate regulatory, tax, trade or other legal impacts to RenaissanceRe, but we are not able to predict future EU actions.

In addition, in 2015, the OECD published its final series of Base Erosion and Profit Shifting (“BEPS”) reports related to its attempt to coordinate multilateral action on international tax rules. The actions recommended in the BEPS report include an examination of the definition of a “permanent establishment” and the rules for attributing profits to a permanent establishment, tightening up transfer pricing rules to ensure that outcomes are in line with value creation, neutralizing the effect of hybrid financial instruments, limiting the deductibility of interest costs for tax purposes and preventing double tax treaty abuse. Any changes in the tax law of a country in response to the BEPS reports and recommendations could subject us to additional taxes and increase the complexity and cost of tax compliance.

In May 2019, the OECD published a “Programme of Work,” divided into two pillars, which is designed to address the tax challenges created by an increasingly digitalized economy. 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 historical “permanent establishment” concepts. Pillar Two addresses the remaining BEPS risk of profit shifting to entities in low tax jurisdictions by introducing a global minimum tax and a proposed tax on base eroding payments, which would operate through a denial of a deduction or imposition of source-based taxation (including withholding tax) on certain payments. The OECD published detailed blueprints of its proposals on October 14, 2020 and public consultations have already been held virtually in January 2021. The OECD’s stated aim is to bring the process to a successful conclusion by mid-2021. To date, the proposal has been written broadly enough to potentially apply to our group’s activities, and we are unable to determine at this time whether it would have a material adverse impact on our operations and results.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We lease office space in Bermuda, which houses our headquarters and principal executive offices, as well as in other locations throughout the U.S. and in the U.K., Australia, Ireland, Singapore and Switzerland. While we believe that our current office space is sufficient for us to conduct our operations, we may expand into additional facilities and new locations to accommodate future growth. To date, the cost of acquiring and maintaining our office space has not been material to us as a whole.

ITEM 3. LEGAL PROCEEDINGS

The information required by this Item relating to legal proceedings is incorporated herein by reference to information included in “Note 20. Commitments, Contingencies and Other Items” in our “Notes to the Consolidated Financial Statements.”

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER REPURCHASES OF EQUITY SECURITIES

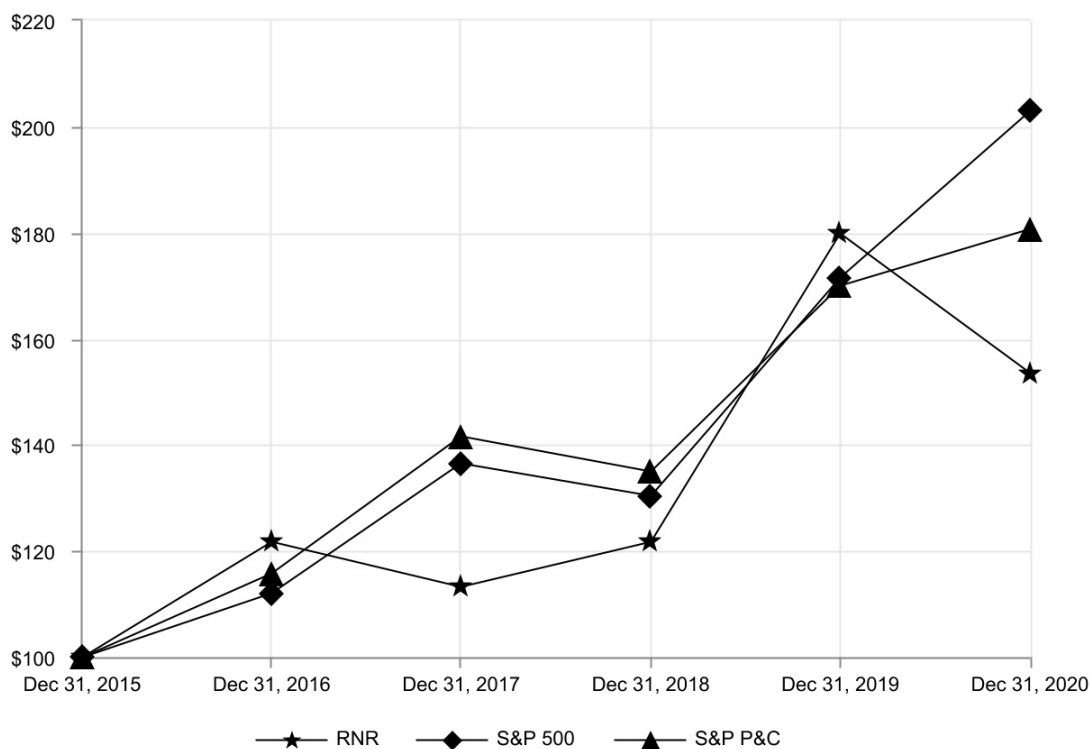
MARKET INFORMATION AND NUMBER OF HOLDERS

Our common shares are listed on the NYSE under the symbol “RNR.” On February 1, 2021, there were 104 holders of record of our common shares.

PERFORMANCE GRAPH

The following graph compares the cumulative return on our common shares, including reinvestment of our dividends on our common shares, to such return for the S&P 500 Composite Stock Price Index (“S&P 500”) and S&P’s Property-Casualty Industry Group Stock Price Index (“S&P P&C”), for the five-year period commencing December 31, 2015 and ending December 31, 2020, assuming \$100 was invested on December 31, 2015. Each measurement point on the graph below represents the cumulative shareholder return as measured by the last sale price at the end of each calendar year during the period from January 1, 2016 through December 31, 2020. As depicted in the graph below, during this period, the cumulative return was (1) 53.4% on our common shares; (2) 103.0% for the S&P 500; and (3) 80.6% for the S&P P&C.

COMPARISON OF FIVE YEAR CUMULATIVE TOTAL RETURN



ISSUER REPURCHASES OF EQUITY SECURITIES

Our share repurchase program may be effected from time to time, depending on market conditions and other factors, through open market purchases and privately negotiated transactions. On February 5, 2021, our Board of Directors approved a renewal of our authorized share repurchase program to an aggregate amount of up to \$500.0 million. Unless terminated earlier by our Board of Directors, the program will expire when we have repurchased the full value of the shares authorized. The table below details the repurchases that were made under the program during the fourth quarter of 2020, and also includes other shares purchased, which represents common shares surrendered by employees in respect of withholding tax obligations on the vesting of restricted stock or in lieu of cash payments for the exercise price of employee stock options.

	Total Shares Purchased		Other Shares Purchased		Shares Purchased Under Repurchase Program		Dollar Amount Still Available Under Repurchase Program (in millions)
	Shares Purchased	Average Price per Share	Shares Purchased	Average Price per Share	Shares Purchased	Average Price per Share	
Beginning dollar amount available to be repurchased							\$ 437.4
October 1 - 31, 2020	—	\$ —	—	\$ —	—	\$ —	—
November 1 - 31, 2020	133	\$ 166.66	133	\$ 166.66	—	\$ —	—
December 1 - 31, 2020	15,694	\$ 165.82	15,694	\$ 165.82	—	\$ —	—
Total	<u>15,827</u>	<u>\$ 165.83</u>	<u>15,827</u>	<u>\$ 165.83</u>	<u>—</u>	<u>\$ —</u>	<u>\$ 437.4</u>

During 2020, pursuant to our publicly announced share repurchase program, we repurchased an aggregate of 406 thousand common shares in open market transactions at an aggregate cost of \$62.6 million and an average price of \$154.36 per common share. Given the economic environment and to preserve capital for both risk and opportunity, we suspended share repurchases in March 2020 and we did not engage in any share repurchase activity in the second, third or fourth quarters of 2020. At December 31, 2020, \$437.4 million remained available for repurchase under the share repurchase program. During the first quarter of 2021, we resumed repurchases of our common shares and subsequent to December 31, 2020 through the period ended February 4, 2021, we repurchased 250,169 common shares in open market transactions at an aggregate cost of \$38.7 million and an average share price of \$154.75. In the future, we may authorize additional purchase activities under the currently authorized share repurchase program, increase the amount authorized under the share repurchase program, or adopt additional trading plans.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following tables set forth our selected consolidated financial data and other financial information at the end of and for each of the years in the five-year period ended December 31, 2020. The results of TMR are included in our consolidated financial data from March 22, 2019. The selected consolidated financial data should be read in conjunction with our consolidated financial statements and related notes thereto and "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Form 10-K.

Year ended December 31,	2020	2019	2018	2017	2016
(in thousands, except share and per share data and percentages)					
Statements of Operations Data:					
Gross premiums written	\$ 5,806,165	\$ 4,807,750	\$ 3,310,427	\$ 2,797,540	\$ 2,374,576
Net premiums written	4,096,333	3,381,493	2,131,902	1,871,325	1,535,312
Net premiums earned	3,952,462	3,338,403	1,976,129	1,717,575	1,403,430
Net investment income	354,038	424,207	269,965	197,775	204,796
Net realized and unrealized gains (losses) on investments	820,636	414,109	(183,168)	160,256	118,258
Net claims and claim expenses incurred	2,924,609	2,097,021	1,120,018	1,861,428	530,831
Acquisition expenses	897,677	762,232	432,989	346,892	289,323
Operational expenses	206,687	222,733	178,267	160,778	197,749
Underwriting (loss) income	(76,511)	256,417	244,855	(651,523)	385,527
Net income (loss)	993,058	950,267	268,917	(354,671)	630,048
Net income (loss) available (attributable) to RenaissanceRe common shareholders	731,482	712,042	197,276	(244,770)	480,581
Net income (loss) available (attributable) to RenaissanceRe common shareholders per common share – diluted	15.31	16.29	4.91	(6.15)	11.43
Dividends per common share	1.40	1.36	1.32	1.28	1.24
Weighted average common shares outstanding – diluted	47,178	43,175	39,755	39,854	41,559
Return on average common equity	11.7 %	14.1 %	4.7 %	(5.7)%	11.0 %
Combined ratio	101.9 %	92.3 %	87.6 %	137.9 %	72.5 %
At December 31,					
Balance Sheet Data:					
Total investments	\$ 20,558,176	\$ 17,368,789	\$ 11,885,747	\$ 9,503,439	\$ 9,316,968
Total assets	30,820,580	26,330,094	18,676,196	15,226,131	12,352,082
Reserve for claims and claim expenses	10,381,138	9,384,349	6,076,271	5,080,408	2,848,294
Unearned premiums	2,763,599	2,530,975	1,716,021	1,477,609	1,231,573
Debt	1,136,265	1,384,105	991,127	989,623	948,663
Capital leases	22,853	25,072	25,853	26,387	26,073
Preference shares	525,000	650,000	650,000	400,000	400,000
Total shareholders' equity attributable to RenaissanceRe	7,560,248	5,971,367	5,045,080	4,391,375	4,866,577
Common shares outstanding	50,811	44,148	42,207	40,024	41,187
Book value per common share	\$ 138.46	\$ 120.53	\$ 104.13	\$ 99.72	\$ 108.45
Accumulated dividends	22.08	20.68	19.32	18.00	16.72
Book value per common share plus accumulated dividends	\$ 160.54	\$ 141.21	\$ 123.45	\$ 117.72	\$ 125.17
Change in book value per common share plus change in accumulated dividends	16.0 %	17.1 %	5.7 %	(6.9)%	10.7 %

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 2020 compared to 2019 and 2019 compared to 2018, respectively as well as our liquidity and capital resources at December 31, 2020. This discussion and analysis should be read in conjunction with the audited consolidated financial statements and notes thereto included in this filing. This filing contains forward-looking statements that involve risks and uncertainties. Actual results may differ materially from the results described or implied by these forward-looking statements. See "Note on Forward-Looking Statements."

On March 22, 2019, we acquired TMR, including RREAG, RenaissanceRe (UK) Limited ("RenaissanceRe UK"), and their subsidiaries, and our results of operations and financial condition include TMR from the acquisition date. The three months ended June 30, 2019, was the first full period that reflected the results of TMR on the Company's results of operations. Subsequently, on August 18, 2020, we sold RenaissanceRe UK to an investment vehicle managed by AXA Liabilities Managers, an affiliate of AXA XL. Refer to "Note 21. Sale of RenaissanceRe UK" in our "Notes to the Consolidated Financial Statements" for additional information with respect to the sale of RenaissanceRe UK. Refer to "Note 3. Acquisition of Tokio Millennium Re" in our "Notes to the Consolidated Financial Statements" for additional information with respect to the acquisition of TMR. The following discussion and analysis of our financial condition and results of operations for 2020 compared to 2019, and 2019 compared to 2018, should be read in this context.

In this Form 10-K, references to "RenaissanceRe" refer to RenaissanceRe Holdings Ltd. (the parent company) and references to "we," "us," "our" and the "Company" refer to RenaissanceRe Holdings Ltd. together with its subsidiaries, unless the context requires otherwise.

All dollar amounts referred to in this Form 10-K are in U.S. dollars unless otherwise indicated.

Due to rounding, numbers presented in the tables included in this Form 10-K may not add up precisely to the totals provided.

INDEX TO MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

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OVERVIEW

RenaissanceRe is a global provider of reinsurance and insurance. We provide property, casualty and specialty reinsurance and certain insurance solutions to customers, principally through intermediaries. Established in 1993, we have offices in Bermuda, Australia, Ireland, Singapore, Switzerland, the U.K. and the U.S. Our operating subsidiaries include Renaissance Reinsurance, Renaissance Reinsurance U.S., RenaissanceRe Specialty U.S., RREAG, Renaissance Reinsurance of Europe and Syndicate 1458. We also underwrite reinsurance on behalf of joint ventures, including DaVinci, Top Layer Re, Upsilon RFO and Vermeer. In addition, through RenaissanceRe Medici, we invest in various insurance-based investment instruments that have returns primarily tied to property catastrophe risk.

We aspire to be the world's best underwriter by matching well-structured risks with efficient sources of capital and our mission is to produce superior returns for our shareholders over the long term. We seek to accomplish these goals by being a trusted, long-term partner to our customers for assessing and managing risk, delivering responsive and innovative solutions, leveraging our core capabilities of risk assessment and information management, investing in these core capabilities in order to serve our customers across market cycles, and keeping our promises. Our strategy focuses on superior risk selection, superior customer relationships and superior capital management. We provide value to our customers and joint venture and managed fund partners in the form of financial security, innovative products, and responsive service. We are known as a leader in paying valid claims promptly. We principally measure our financial success through long-term growth in tangible book value per common share plus the change in accumulated dividends, which we believe is the most appropriate measure of our financial performance, and in respect of which we believe we have delivered superior performance over time. The principal drivers of our profit are underwriting income, investment income and fee income generated by our third-party capital management business.

Our core products include property, casualty and specialty reinsurance, and certain insurance products principally distributed through intermediaries, with whom we have cultivated strong long-term relationships. We believe we have been one of the world's leading providers of catastrophe reinsurance since our founding. In recent years, through the strategic execution of several initiatives, including organic growth and acquisitions, we have expanded and diversified our casualty and specialty platform and products, and believe we are a leader in certain casualty and specialty lines of business. We also pursue a number of other opportunities through our ventures unit, which has responsibility for creating and managing our joint ventures and managed funds, executing structured reinsurance transactions to assume or cede risk, and managing certain strategic investments directed at classes of risk other than catastrophe reinsurance. From time to time we consider diversification into new ventures, either through organic growth, the formation of new joint ventures or managed funds, or the acquisition of, or the investment in, other companies or books of business of other companies.

We have determined our business consists of the following reportable segments: (1) Property, which is comprised of catastrophe and other property reinsurance and insurance written on behalf of our operating subsidiaries and certain entities managed by our ventures unit, and (2) Casualty and Specialty, which is comprised of casualty and specialty reinsurance and insurance written on behalf of our operating subsidiaries and certain entities managed by our ventures unit.

To best serve our clients in the places they do business, we have operating subsidiaries, branches, joint ventures and managed funds, and underwriting platforms around the world. We write property and casualty and specialty reinsurance through our wholly owned operating subsidiaries, joint ventures and managed funds and Syndicate 1458 and certain insurance products primarily through Syndicate 1458 and RenaissanceRe Specialty U.S. Syndicate 1458 provides us with access to Lloyd's extensive distribution network and worldwide licenses, and also writes business through delegated authority arrangements. The underwriting results of our operating subsidiaries and underwriting platforms are included in our Property and Casualty and Specialty segment results as appropriate.

A meaningful portion of the reinsurance and insurance we write provides protection from damages relating to natural and man-made catastrophes. Our results depend to a large extent on the frequency and severity of these catastrophic events, and the coverages we offer to customers affected by these events. We are exposed to significant losses from these catastrophic events and other exposures we cover, which primarily impact our Property segment, in both the property catastrophe and other property lines of business. Accordingly, we expect a significant degree of volatility in our financial results and our financial results may

vary significantly from quarter-to-quarter and from year-to-year, based on the level of insured catastrophic losses occurring around the world. Our Casualty and Specialty business, which represents approximately half of our gross written premiums annually, is an efficient use of capital that is generally less correlated with our property lines of business. It allows us to bring additional capacity to our clients, across a wider range of product offerings, while continuing to be good stewards of our shareholders' capital.

We continually explore appropriate and efficient ways to address the risk needs of our clients and the impact of various regulatory and legislative changes on our operations. We have created and managed, and continue to manage, multiple capital vehicles across several jurisdictions and may create additional risk bearing vehicles or enter into additional jurisdictions in the future. In addition, our differentiated strategy and capabilities position us to pursue bespoke or large solutions for clients, which may be non-recurring. This, and other factors including the timing of contract inception, could result in significant volatility of premiums in both our Property and Casualty and Specialty segments. As our product and geographical diversity increases, we may be exposed to new risks, uncertainties and sources of volatility.

Our revenues are principally derived from three sources: (1) net premiums earned from the reinsurance and insurance policies we sell; (2) net investment income and realized and unrealized gains from the investment of our capital funds and the investment of the cash we receive on the policies which we sell; and (3) fees and other income received from our joint ventures and managed funds, advisory services and various other items.

Our expenses primarily consist of: (1) net claims and claim expenses incurred on the policies of reinsurance and insurance we sell; (2) acquisition costs which typically represent a percentage of the premiums we write; (3) operating expenses which primarily consist of personnel expenses, rent and other operating expenses; (4) corporate expenses which include certain executive, legal and consulting expenses, costs for research and development, transaction and integration-related expenses, and other miscellaneous costs, including those associated with operating as a publicly traded company; (5) redeemable noncontrolling interests, which represent the interests of third parties with respect to the net income of DaVinciRe, Medici and Vermeer; and (6) interest and dividend costs related to our debt and preference shares. We are also subject to taxes in certain jurisdictions in which we operate. Since the majority of our income is currently earned in Bermuda, which does not have a corporate income tax, the tax impact to our operations has historically been minimal. In the future, our net tax exposure may increase as our operations expand geographically, or as a result of adverse tax developments.

The underwriting results of an insurance or reinsurance company are discussed frequently by reference to its net claims and claim expense ratio, underwriting expense ratio, and combined ratio. The net claims and claim expense ratio is calculated by dividing net claims and claim expenses incurred by net premiums earned. The underwriting expense ratio is calculated by dividing underwriting expenses (acquisition expenses and operational expenses) by net premiums earned. The combined ratio is the sum of the net claims and claim expense ratio and the underwriting expense ratio. A combined ratio below 100% indicates profitable underwriting prior to the consideration of investment income. A combined ratio over 100% indicates unprofitable underwriting prior to the consideration of investment income. We also discuss our net claims and claim expense ratio on a current accident year basis and a prior accident years basis. The current accident year net claims and claim expense ratio is calculated by taking current accident year net claims and claim expenses incurred, divided by net premiums earned. The prior accident years net claims and claim expense ratio is calculated by taking prior accident years net claims and claim expenses incurred, divided by net premiums earned.

COVID-19 Pandemic

In late 2019, an outbreak of a novel strain of coronavirus emerged and has since spread globally. It is not yet possible to give an estimate of all of the Company's potential reinsurance, insurance or investment exposures, or any other effects that the COVID-19 pandemic may have on our results of operations or financial condition. Due to the ongoing and rapidly evolving nature of the COVID-19 pandemic, we are continuing to evaluate the impact of the COVID-19 pandemic on our business, operations and financial condition, including our potential loss exposures.

We approach estimation of our potential loss exposure by dividing our exposures into three categories: (1) event-like losses, such as event contingency, event-based casualty class and certain types of accident and health, (2) developing losses, such as traditional casualty lines, financial credit lines, such as mortgage and

trade credit and surety, and (3) known unknowns, which is primarily business interruption. We continue to evaluate industry trends and our potential exposure associated with the ongoing COVID-19 pandemic, and expect historically significant industry losses to emerge over time as the full impact of the pandemic and its effects on the global economy are realized. A longer or more severe recession will increase the probability of losses. Potential legislative, regulatory and judicial actions are also causing significant uncertainty with respect to policy coverage and other issues. Among other things, we continue to actively monitor information received from or reported by clients, brokers, industry actuaries, regulators, courts, and others, and to assess that information in the context of our own portfolio.

In addition to coverage exposures, volatility in global financial markets, together with low or negative interest rates, reduced liquidity and a slowdown in global economic conditions in many economies, have impacted, and may affect, our investment portfolio in the future. These conditions may also negatively impact our ability to access liquidity and capital markets financing, which may not be available or may only be available on unfavorable terms.

While we believe we have been able to operate effectively with most of our employees working remotely, an extended period of remote work arrangements could strain the Company's business continuity plans, introduce operational risk, including but not limited to cybersecurity risks, and adversely affect the Company's ability to manage our business. For additional information see "—Current Outlook" and "Part II, Item 1A, Risk Factors."

SUMMARY OF CRITICAL ACCOUNTING ESTIMATES

Claims and Claim Expense Reserves

General Description

We believe the most significant accounting judgment made by management is our estimate of claims and claim expense reserves. Claims and claim expense reserves represent estimates, including actuarial and statistical projections at a given point in time, of the ultimate settlement and administration costs for unpaid claims and claim expenses arising from the insurance and reinsurance contracts we sell. We establish our claims and claim expense reserves by taking case reserves, adding estimates for IBNR and, if deemed necessary, adding costs for additional case reserves which represent our estimates for claims related to specific contracts which we believe may not be adequately estimated by the client as of that date, or adequately covered in the application of IBNR. Our reserving committee, which includes members of our senior management, reviews, discusses, and assesses the reasonableness and adequacy of the reserving estimates included in our audited financial statements.

In accordance with FASB ASC Topic *Business Combinations*, we allocated the total consideration paid for TMR among acquired assets and assumed liabilities based on their fair values. These assets and liabilities include TMR's claims and claim expense reserves, which totaled \$2.4 billion at March 22, 2019, and consisted of \$783.3 million and \$1.6 billion included in our Property and Casualty and Specialty segments, respectively.

The following table summarizes our claims and claim expense reserves by line of business, allocated between case reserves, additional case reserves and IBNR:

At December 31, 2020 (in thousands)	<u>Case Reserves</u>	<u>Additional Case Reserves</u>	<u>IBNR</u>	<u>Total</u>
Property	\$ 1,127,201	\$ 1,617,003	\$ 1,627,541	\$ 4,371,745
Casualty and Specialty	1,651,150	133,843	4,223,692	6,008,685
Other	708	—	—	708
Total	\$ 2,779,059	\$ 1,750,846	\$ 5,851,233	\$ 10,381,138
At December 31, 2019 (in thousands)				
Property	\$ 1,253,406	\$ 1,631,223	\$ 1,189,221	\$ 4,073,850
Casualty and Specialty	1,596,426	129,720	3,583,913	5,310,059
Other	440	—	—	440
Total	\$ 2,850,272	\$ 1,760,943	\$ 4,773,134	\$ 9,384,349

Activity in the liability for unpaid claims and claim expenses is summarized as follows:

Year ended December 31, (in thousands)	<u>2020</u>	<u>2019</u>	<u>2018</u>
Reserve for claims and claim expenses, net of reinsurance recoverable, as of beginning of period	\$ 6,593,052	\$ 3,704,050	\$ 3,493,778
Net incurred related to:			
Current year	3,108,421	2,123,876	1,390,767
Prior years	(183,812)	(26,855)	(270,749)
Total net incurred	<u>2,924,609</u>	<u>2,097,021</u>	<u>1,120,018</u>
Net paid related to:			
Current year	412,172	265,649	391,061
Prior years	1,592,456	832,405	503,708
Total net paid	<u>2,004,628</u>	<u>1,098,054</u>	<u>894,769</u>
Foreign exchange (1)	97,273	31,260	(14,977)
Amounts disposed (2)	(155,178)	—	—
Amounts acquired (3)	—	1,858,775	—
Reserve for claims and claim expenses, net of reinsurance recoverable, as of end of period	7,455,128	6,593,052	3,704,050
Reinsurance recoverable as of end of period	2,926,010	2,791,297	2,372,221
Reserve for claims and claim expenses as of end of period	\$ 10,381,138	\$ 9,384,349	\$ 6,076,271

- (1) Reflects the impact of the foreign exchange revaluation of the reserve for claims and claim expenses, net of reinsurance recoverable, denominated in non-U.S. dollars as at the balance sheet date.
- (2) Represents the fair value of RenaissanceRe UK's reserve for claims and claim expenses, net of reinsurance recoverable, disposed of on August 18, 2020.
- (3) Represents the fair value of TMR's reserve for claims and claim expenses, net of reinsurance recoverable, acquired at March 22, 2019.

The following table details our prior year development by segment of its liability for unpaid claims and claim expenses:

<u>Year ended December 31,</u> (in thousands)	<u>2020</u> (Favorable) adverse development	<u>2019</u> (Favorable) adverse development	<u>2018</u> (Favorable) adverse development
Property	\$ (157,261)	\$ (2,933)	\$ (221,290)
Casualty and Specialty	(26,763)	(23,882)	(49,262)
Other	212	(40)	(197)
Total favorable development of prior accident years net claims and claim expenses	<u>\$ (183,812)</u>	<u>\$ (26,855)</u>	<u>\$ (270,749)</u>

Our reserving methodology for each line of business uses a loss reserving process that calculates a point estimate for our ultimate settlement and administration costs for claims and claim expenses. We do not calculate a range of estimates and do not discount any of our reserves for claims and claim expenses. We use this point estimate, along with paid claims and case reserves, to record our best estimate of additional case reserves and IBNR in our consolidated financial statements. Under GAAP, we are not permitted to establish estimates for catastrophe claims and claim expense reserves until an event occurs that gives rise to a loss.

Reserving for our claims involves other uncertainties, such as the dependence on information from ceding companies, the time lag inherent in reporting information from the primary insurer to us or to our ceding companies, and different reserving practices among ceding companies. The information received from ceding companies is typically in the form of bordereaux, broker notifications of loss and/or discussions with ceding companies or their brokers. This information may be received on a monthly, quarterly or transactional basis and normally includes paid claims and estimates of case reserves. We may also receive an estimate or provision for IBNR from certain ceding companies. This information is often updated and adjusted from time to time during the loss settlement period as new data or facts in respect of initial claims, client accounts, industry or event trends may be reported or emerge in addition to changes in applicable statutory and case laws.

Our estimates of large losses are based on factors including currently available information derived from claims information from certain customers and brokers, industry assessments of losses, proprietary models, and the terms and conditions of our contracts. The uncertainty of our estimates for large losses is also impacted by the preliminary nature of the information available, the magnitude and relative infrequency of the loss, the expected duration of the respective claims development period, inadequacies in the data provided to the relevant date by industry participants, the potential for further reporting lags or insufficiencies and, in certain cases, the form of the claims and legal issues under the relevant terms of insurance and reinsurance contracts. In addition, a significant portion of the net claims and claim expenses associated with certain large losses can be concentrated with a few large clients and therefore the loss estimates for these losses may vary significantly based on the claims experience of those clients. The contingent nature of business interruption and other exposures will also impact losses in a meaningful way, which we believe may give rise to significant complexity in respect of claims handling, claims adjustment and other coverage issues, over time. Given the magnitude of certain losses, there can be meaningful uncertainty regarding total covered losses for the insurance industry and, accordingly, several of the key assumptions underlying our loss estimates. Loss reserve estimation in respect of our retrocessional contracts poses further challenges compared to directly assumed reinsurance. In addition, our actual net losses may increase if our reinsurers or other obligors fail to meet their obligations.

Because of the inherent uncertainties discussed above, we have developed a reserving philosophy which attempts to incorporate prudent assumptions and estimates, and we have generally experienced favorable net development on prior accident years net claims and claim expenses in the last several years. However, there is no assurance that this favorable development on prior accident years net claims and claim expenses will occur in future periods.

Our reserving techniques, assumptions and processes differ among our Property and Casualty and Specialty segments. Refer to "Note 8. Reserve for Claims and Claim Expenses" in our "Notes to the Consolidated Financial Statements" for more information on the risks we insure and reinsure, the reserving

techniques, assumptions and processes we follow to estimate our claims and claim expense reserves, prior year development of the reserve for claims and claim expenses, analysis of our incurred and paid claims development and claims duration information for each of our Property and Casualty and Specialty segments.

Property Segment

Actual Results vs. Initial Estimates

As discussed above, the key assumption in estimating reserves for our Property segment is our estimate of incurred claims and claim expenses. The table below shows our initial estimates of incurred claims and claim expenses for each accident year and how these initial estimates have developed over time. The initial estimate of accident year incurred claims and claim expenses represents our estimate of the ultimate settlement and administration costs for claims incurred in our Property segment occurring during a particular accident year, and as reported as of December 31 of that year. The re-estimated incurred claims and claim expenses as of December 31 of subsequent years, represent our revised estimates as reported as of those dates. Our most recent estimates as reported at December 31, 2020 differ from our initial accident year estimates and demonstrate that our most recent estimate of incurred claims and claim expenses are reasonably likely to vary from our initial estimate, perhaps significantly. Changes in this estimate will be recorded in the period in which they occur. In accident years where our current estimates are lower than our initial estimates, we have experienced favorable development, in comparison, for accident years where our current estimates are higher than our original estimates we have experienced adverse development. The table is presented on a net basis and, therefore, includes the benefit of reinsurance recoverable. In addition, we have included historical incurred claims and claim expenses development information related to Platinum and TMR in the table below. For incurred accident year claims denominated in foreign currency, we have used the current year-end balance sheet foreign exchange rate for all periods provided, thereby eliminating the effects of changes in foreign currency translation rates from the incurred accident year claims development information included in the table below.

The following table details our Property segment incurred claims and claim expenses, net of reinsurance, as of December 31, 2020.

(in thousands)	Incurred Claims and Claim Expenses, Net of Reinsurance									
	For the year ended December 31,									
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2011	\$ 1,628,699	\$ 1,571,670	\$ 1,501,089	\$ 1,470,521	\$ 1,446,398	\$ 1,415,459	\$ 1,412,109	\$ 1,398,038	\$ 1,379,645	\$ 1,380,673
2012	—	562,094	431,482	397,075	376,811	359,890	348,108	340,218	335,699	327,407
2013	—	—	323,743	300,349	277,641	255,322	243,839	240,007	240,252	246,855
2014	—	—	—	305,033	281,496	267,795	262,696	261,522	258,791	250,617
2015	—	—	—	—	375,399	359,662	336,705	325,719	314,389	310,317
2016	—	—	—	—	—	460,422	473,708	457,052	438,040	419,308
2017	—	—	—	—	—	—	1,649,071	1,467,835	1,360,897	1,364,285
2018	—	—	—	—	—	—	—	957,622	1,062,871	1,051,617
2019	—	—	—	—	—	—	—	—	1,014,100	978,600
2020	—	—	—	—	—	—	—	—	—	1,552,079
Total										\$ 7,881,758

Our initial and subsequent estimates of incurred claims and claim expenses, net of reinsurance, are impacted by available information derived from claims information from certain customers and brokers, industry assessments of losses, proprietary models, and the terms and conditions of our contracts. As described above, given the complexity in reserving for claims and claims expenses associated with property losses, and catastrophe excess of loss reinsurance contracts in particular, which make up a significant proportion of our Property segment, we have experienced development, both favorable and unfavorable, in any given accident year. For example, net claims and claim expenses associated with the 2017 accident year have experienced favorable development. This is largely driven by reductions in estimated net ultimate claims and claim expenses associated with Hurricanes Harvey, Irma and Maria, the Mexico City

Earthquake, the wildfires in California during the fourth quarter of 2017 and certain losses associated with aggregate loss contracts (collectively, the "2017 Large Loss Events"). In comparison, net claims and claim expenses associated with 2018 accident year have experienced adverse development. The adverse development was driven by a deterioration in expected net claims and claim expenses as new and additional claims information was received associated with Typhoons Jebi, Mangkhut and Trami, Hurricane Florence, the wildfires in California during the third and fourth quarters of 2018, Hurricane Michael and certain losses associated with aggregate loss contracts (the "2018 Large Loss Events").

In accident years with a low level of insured catastrophe losses, our other property lines of business would contribute a greater proportion of our overall incurred claims and claim expenses within our Property segment, compared to years with a high level of insured catastrophe losses. Our other property lines of business tend to generate less volatility in future accident years and, as such, we would expect to see a slower more stable increase or decrease in estimated incurred net claims and claim expenses over time. Certain of our other property contracts are also exposed to catastrophe events, resulting in increased volatility of incurred claims and claim expenses driven by the occurrence of catastrophe events. In addition, volatility of the initial estimate associated with large catastrophe losses and the speed at which we settle claims can vary dramatically based on the type of event. We anticipate losses from the COVID-19 pandemic will be highly complex and uncertain given the unprecedented situation and will take longer to develop given the nature of the losses.

Sensitivity Analysis

The table below shows the impact on our gross reserve for claims and claim expenses, net income and shareholders' equity as of and for the year ended December 31, 2020 of a reasonable range of possible outcomes associated with our estimates of gross ultimate losses for claims and claim expenses incurred within our Property segment. The reasonable range of possible outcomes is based on a distribution of outcomes of our ultimate incurred claims and claim expenses from large losses. In addition, we adjust the loss ratios and development curves in our other property lines of business in a similar fashion to the sensitivity analysis performed for our Casualty and Specialty segment, discussed in greater detail below. In general, our reserve for claims and claim expenses for more recent losses are subject to greater uncertainty and, therefore, greater variability and are likely to experience material changes from one period to the next. This is due to uncertainty with respect to the size of the industry losses, which contracts have been exposed to the loss and the magnitude of claims incurred by our clients. As our claims age, more information becomes available and we believe our estimates become more certain, although there is no assurance this trend will continue in the future. As a result, the sensitivity analysis below is based on the age of each accident year, our current estimated incurred claims and claim expenses for the losses occurring in each accident year, and a reasonable range of possible outcomes of our current estimates of claims and claim expenses by accident year. The impact on net income and shareholders' equity assumes no increase or decrease in reinsurance recoveries, loss related premium or profit commission, or redeemable noncontrolling interest.

Property Claims and Claim Expense Reserve Sensitivity Analysis

(in thousands, except percentages)	Reserve for Claims and Claim Expenses at December 31, 2020	\$ Impact of Change Reserve for Claims and Claim Expenses at December 31, 2020	% Impact of Change on Reserve for Claims and Claim Expenses at December 31, 2020	% Impact of Change on Net Income for the Year Ended December 31, 2020	% Impact of Change on Shareholders' Equity at December 31, 2020
Higher	\$ 4,783,438	\$ 411,693	4.0 %	(41.5)%	(5.4)%
Recorded	4,371,745	—	— %	— %	— %
Lower	4,083,914	(287,831)	(2.8)%	29.0 %	3.8 %

We believe the changes we made to our estimated incurred claims and claim expenses represent a reasonable range of possible outcomes based on our experience to date and our future expectations. While we believe these are a reasonable range of possible outcomes, we do not believe the above sensitivity analysis should be considered an actuarial reserve range. In addition, the sensitivity analysis only reflects a

reasonable range of possible outcomes in our underlying assumptions. It is possible that our estimated incurred claims and claim expenses could be significantly higher or lower than the sensitivity analysis described above. For example, we could be liable for events for which we have not estimated claims and claim expenses or for exposures we do not currently believe are covered under our policies. These changes could result in significantly larger changes to our estimated incurred claims and claim expenses, net income and shareholders' equity than those noted above, and could be recorded across multiple periods. We also caution that the above sensitivity analysis is not used by management in developing our reserve estimates and is also not used by management in managing the business.

Casualty and Specialty Segment

Actual Results vs. Initial Estimates

As discussed above, the key assumption in estimating reserves for our Casualty and Specialty segment is our estimate of incurred claims and claim expenses. Standard actuarial techniques are used to calculate the ultimate claims and claim expenses. The key assumptions in the determination of ultimate claims and claim expenses include the estimated incurred claims and claim expenses ratio and the estimated loss reporting patterns. The table below shows our initial estimates of incurred claims and claim expenses for each accident year and how these initial estimates have developed over time. The initial estimate of accident year incurred claims and claim expenses represents our estimate of the ultimate settlement and administration costs for claims incurred in our Casualty and Specialty segment occurring during a particular accident year, and as reported as of December 31 of that year. The re-estimated incurred claims and claim expenses as of December 31 of subsequent years, represent our revised estimates as reported as of those dates. Our most recent estimates as reported at December 31, 2020 differ from our initial accident year estimates and demonstrates that our initial estimate of incurred claims and claim expenses are reasonably likely to vary from our most recent estimate, perhaps significantly. Changes in this estimate will be recorded in the period in which they occur. In accident years where our current estimates are lower than our initial estimates, we have experienced favorable development while accident years where our current estimates are higher than our original estimates indicate adverse development. The table is presented on a net basis and, therefore, includes the benefit of reinsurance recoverable. In addition, we have included historical incurred claims and claim expenses development information related to Platinum and TMR in the table below. For incurred accident year claims denominated in foreign currency, we have used the current year-end balance sheet foreign exchange rate for all periods provided, thereby eliminating the effects of changes in foreign currency translation rates from the incurred accident year claims development information included in the table below.

The following table details our Casualty and Specialty segment incurred claims and claim expenses, net of reinsurance, as of December 31, 2020.

(in thousands)	Incurred Claims and Claim Expenses, Net of Reinsurance										
	For the year ended December 31,										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Accident Year											
2011	\$ 428,832	\$ 431,776	\$ 404,413	\$ 375,306	\$ 368,080	\$ 360,420	\$ 348,761	\$ 355,936	\$ 362,223	\$ 358,371	
2012	—	580,296	595,113	565,322	553,950	542,542	556,300	570,780	580,366	572,594	
2013	—	—	597,712	596,555	567,832	543,326	530,256	515,405	498,721	489,802	
2014	—	—	—	705,223	700,520	704,634	685,528	667,726	668,011	641,980	
2015	—	—	—	—	771,338	791,751	830,864	811,034	817,645	834,879	
2016	—	—	—	—	—	968,634	1,001,832	1,000,773	1,016,177	984,205	
2017	—	—	—	—	—	—	1,317,200	1,294,009	1,330,123	1,320,765	
2018	—	—	—	—	—	—	—	1,268,346	1,318,108	1,343,050	
2019	—	—	—	—	—	—	—	—	1,220,627	1,250,528	
2020	—	—	—	—	—	—	—	—	—	1,428,311	
Total										\$ 9,224,485	

As each underwriting year has developed, our estimated expected incurred claims and claim expenses, net of reinsurance, have changed. As an example, our re-estimated incurred claims and claim expenses

decreased for the 2014 accident year from the initial estimates. This decrease was principally driven by actual reported and paid net claims and claim expenses associated with the 2014 accident year being lower than expected, which has resulted in a reduction in our expected ultimate claims and claim expense ratio for this accident year. In comparison, the 2018 accident year has developed adversely compared to our initial estimates of incurred claims and claim expenses and our current estimates are higher than our initial estimates. The increase in incurred claims and claim expenses for the 2018 accident year is due to reported losses generally coming in higher than expected on attritional net claims and claim expenses.

The reserving methodology for our Casualty and Specialty segment is weighted more heavily to our initial estimate in the early periods immediately following the contracts' inception through the use of the expected loss ratio method. The expected loss ratio method estimates the incurred losses by multiplying the initial expected loss ratio by the earned premium. Under the expected loss ratio method, no reliance is placed on the development of claims and claim expenses. The determination of when reported losses are sufficient and credible to warrant selection of an ultimate loss ratio different from the initial expected loss ratio also requires judgment. We generally make adjustments for reported loss experience indicating unfavorable variances from the initial expected loss ratio sooner than reported loss experience indicating favorable variances as reporting of losses in excess of expectations tends to have greater credibility than an absence of, or lower than expected level of, reported losses. Over time, as a greater number of claims are reported and the credibility of reported losses improves, actuarial estimates of IBNR are typically based on the Bornhuetter-Ferguson actuarial method. The Bornhuetter-Ferguson method places weight on claims and claim expenses development experience. If there is adverse development of prior accident years claims and claim expenses, we generally select the Bornhuetter-Ferguson method to ensure the claim experience is considered in the determination of our estimated claims and claim expenses with the associated business. If we believe we lack the claims experience in the early stages of development of a line of business, we may not select the Bornhuetter-Ferguson method until such time as we believe there is greater credibility in the level of reported losses. As development experience for claims and claim expenses on prior accident years becomes credible, the Bornhuetter-Ferguson method is generally selected which places greater weight on this reported experience as it develops. The Bornhuetter-Ferguson method estimates our expected ultimate claims and claim expenses by applying our initial estimated loss ratio to our undeveloped premium, and adding the reported losses to the estimate. The impact of these methodologies can be observed in the table above. For example, the 2014 accident year ultimate loss remained relatively consistent for the first two years of development (i.e., the years ended December 31, 2015 and 2016), before experiencing favorable development in years three and four (i.e., the years ended December 31, 2017 and 2018), reflecting the timing of our adoption of the Bornhuetter-Ferguson method as the reported experience became more credible.

Sensitivity Analysis

The table below quantifies the impact on our gross reserves for claims and claim expenses, net income and shareholders' equity as of and for the year ended December 31, 2020 of a reasonable range of possible outcomes in the actuarial assumptions used to estimate our December 31, 2020 claims and claim expense reserves within our Casualty and Specialty segment. The table quantifies a reasonable range of possible outcomes in our initial estimated gross ultimate claims and claim expense ratios and estimated loss reporting patterns. The impact on net income and shareholders' equity assumes no increase or decrease in reinsurance recoveries, loss related premium or profit commission, or redeemable noncontrolling interest.

Casualty and Specialty Claims and Claim Expense Reserve Sensitivity Analysis

(in thousands, except percentages)	Estimated Loss Reporting Pattern	\$ Impact of Change on Reserves for Claims and Claim Expenses at December 31, 2020	% Impact of Change on Reserve for Claims and Claim Expenses at December 31, 2020	% Impact of Change on Net Income for the Year Ended December 31, 2020	% Impact of Change on Shareholders' Equity at December 31, 2020
Increase expected claims and claim expense ratio by 10%	Slower reporting	\$ 884,339	8.5 %	(89.1)%	(11.7)%
Increase expected claims and claim expense ratio by 10%	Expected reporting	422,128	4.1 %	(42.5)%	(5.6)%
Increase expected claims and claim expense ratio by 10%	Faster reporting	259,041	2.5 %	(26.1)%	(3.4)%
Expected claims and claim expense ratio	Slower reporting	419,973	4.0 %	(42.3)%	(5.6)%
Expected claims and claim expense ratio	Expected reporting	—	— %	— %	— %
Expected claims and claim expense ratio	Faster reporting	(148,480)	(1.4)%	15.0 %	2.0 %
Decrease expected claims and claim expense ratio by 10%	Slower reporting	(44,394)	(0.4)%	4.5 %	0.6 %
Decrease expected claims and claim expense ratio by 10%	Expected reporting	(422,566)	(4.1)%	42.6 %	5.6 %
Decrease expected claims and claim expense ratio by 10%	Faster reporting	(556,001)	(5.4)%	56.0 %	7.4 %

We believe that ultimate claims and claim expense ratios 10.0 percentage points above or below our estimated assumptions constitute a reasonable range of possible outcomes based on our experience to date and our future expectations. In addition, we believe that the adjustments we made to speed up or slow down our estimated loss reporting patterns represent a reasonable range of possible outcomes. While we believe these are a reasonable range of possible outcomes, we do not believe the above sensitivity analysis should be considered an actuarial reserve range. In addition, the sensitivity analysis only reflects a reasonable range of possible outcomes in our underlying assumptions. It is possible that our initial estimated claims and claim expense ratios and loss reporting patterns could be significantly different from the sensitivity analysis described above. For example, we could be liable for events that we have not estimated reserves for, or for exposures we do not currently believe are covered under our contracts. These changes could result in significantly larger changes to reserves for claims and claim expenses, net income and shareholders' equity than those noted above, and could be recorded across multiple periods. We also caution that the above sensitivity analysis is not used by management in developing our reserve estimates and is also not used by management in managing the business.

Premiums and Related Expenses

Premiums are recognized as income, net of any applicable reinsurance or retrocessional coverage purchased, over the terms of the related contracts and policies. Premiums written are based on contract and policy terms and include estimates based on information received from both insureds and ceding companies. Unearned premiums represents the portion of premiums written that relate to the unexpired terms of contracts and policies in force. Amounts are computed by pro rata methods based on statistical data or reports received from ceding companies. Reinstatement premiums are estimated after the occurrence of a loss and are recorded in accordance with the contract terms based upon paid losses as well as reported and estimated reserves. Reinstatement premiums are earned when written.

Due to the nature of reinsurance, ceding companies routinely report and remit premiums to us subsequent to the contract coverage period. Consequently, premiums written and receivable include amounts reported by the ceding companies, supplemented by our estimates of premiums that are written but not reported. The estimation of written premiums may be affected by early cancellation, election of contract provisions for

cut-off and return of unearned premiums or other contract disruptions. The time lag involved in the process of reporting premiums is shorter than the lag in reporting losses. In addition to estimating premiums written, we estimate the earned portion of premiums written which is subject to judgment and uncertainty. Any adjustments to written and earned premiums, and the related losses and acquisition expenses, are accounted for as changes in estimates and are reflected in the results of operations in the period in which they are made.

Lines of business that are similar in both the nature of their business and estimation process may be grouped for purposes of estimating premiums. Premiums are estimated based on ceding company estimates and our own judgment after considering factors such as: (1) the ceding company's historical premium versus projected premium, (2) the ceding company's history of providing accurate estimates, (3) anticipated changes in the marketplace and the ceding company's competitive position therein, (4) reported premiums to date and (5) the anticipated impact of proposed underwriting changes. Estimates of premiums written and earned are based on the selected ultimate premium estimate, the terms and conditions of the reinsurance contracts and the remaining exposure from the underlying policies. We evaluate the appropriateness of these estimates in light of the actual premium reported by the ceding companies, information obtained during audits and other information received from ceding companies.

We estimate our provision for current expected credit losses by applying specific percentages against each premiums receivable based on the counterparty's credit ratings. The percentages applied are based on information received from both insureds and ceding companies and are then adjusted by us based on industry knowledge and our judgment and estimates. We then evaluate the overall adequacy of the provision for current expected credit losses based on other qualitative and judgmental factors. At December 31, 2020, the Company's premiums receivable balance was \$2.9 billion (2019 - \$2.6 billion). Of the Company's premiums receivable balance as of December 31, 2020, the majority are receivables from highly rated counterparties and Lloyd's syndicates. In regard to the adoption of ASU 2016-13, the Company held a provision for current expected credit losses on its premiums receivable of \$6.0 million.

Reinsurance Recoverable

We enter into retrocessional reinsurance agreements in order to help reduce our exposure to large losses and to help manage our risk portfolio. Amounts recoverable from reinsurers are estimated in a manner consistent with the claims and claim expense reserves associated with the related assumed reinsurance. For multi-year retrospectively rated contracts, we accrue amounts (either assets or liabilities) that are due to or from our retrocessionaires based on estimated contract experience. If we determine that adjustments to earlier estimates are appropriate, such adjustments are recorded in the period in which they are determined.

The estimate of reinsurance recoverable can be more subjective than estimating the underlying claims and claim expense reserves as discussed under the heading "Claims and Claim Expense Reserves" above. In particular, reinsurance recoverable may be affected by deemed inuring reinsurance, industry losses reported by various statistical reporting services, and other factors. Reinsurance recoverable on dual trigger reinsurance contracts require us to estimate our ultimate losses applicable to these contracts as well as estimate the ultimate amount of insured industry losses that will be reported by the applicable statistical reporting agency, as per the contract terms. In addition, the level of our additional case reserves and IBNR reserves has a significant impact on reinsurance recoverable. These factors can impact the amount and timing of the reinsurance recoverable to be recorded.

The majority of the balance we have accrued as recoverable will not be due for collection until some point in the future. The amounts recoverable that will ultimately be collected are subject to uncertainty due to the ultimate ability and willingness of reinsurers to pay our claims at a future point in time, for reasons including insolvency or elective run-off, contractual dispute and various other reasons. In addition, because the majority of the balances recoverable will not be collected for some time, economic conditions as well as the financial and operational performance of a particular reinsurer may change, and these changes may affect the reinsurer's willingness and ability to meet their contractual obligations to us. To reflect these uncertainties, we estimate and record a provision for current expected credit losses for potential uncollectible reinsurance recoverable which reduces reinsurance recoverable and net income.

We estimate our provision for current expected credit losses by applying specific percentages against each reinsurance recoverable based on our counterparty's credit rating. The percentages applied are based on

historical industry default statistics developed by major rating agencies and are then adjusted by us based on industry knowledge and our judgment and estimates. We then evaluate the overall adequacy of the provision for current expected credit losses based on other qualitative and judgmental factors. At December 31, 2020, our reinsurance recoverable balance was \$2.9 billion (2019 - \$2.8 billion). Of this amount, 45.2% is fully collateralized by our reinsurers, 53.4% is recoverable from reinsurers rated A- or higher by major rating agencies and 1.4% is recoverable from reinsurers rated lower than A- by major rating agencies (2019 - 57.5%, 41.0% and 1.5%, respectively). The reinsurers with the three largest balances accounted for 15.3%, 10.8% and 6.7%, respectively, of our reinsurance recoverable balance at December 31, 2020 (2019 - 12.7%, 7.2% and 7.0%, respectively). The provision for current expected credit losses recorded against reinsurance recoverable was \$6.3 million at December 31, 2020 (2019 - \$7.3 million). The three largest company-specific components of the provision for current expected credit losses represented 13.2%, 13.0% and 6.7%, respectively, of our total provision for current expected credit losses at December 31, 2020 (2019 - 18.1%, 7.9% and 7.2%, respectively).

Fair Value Measurements and Impairments

Fair Value

The use of fair value to measure certain assets and liabilities with resulting unrealized gains or losses is pervasive within our consolidated financial statements. Fair value is defined under accounting guidance currently applicable to us to be the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between open market participants at the measurement date. We recognize the change in unrealized gains and losses arising from changes in fair value in our consolidated statements of operations.

FASB ASC Topic *Fair Value Measurements and Disclosures* prescribes a fair value hierarchy that prioritizes the inputs to the respective valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to valuation techniques that use at least one significant input that is unobservable (Level 3).

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy within which the fair value measurement in its entirety falls has been determined based on the lowest level input that is significant to the fair value measurement of the asset or liability. Our assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment, and we consider factors specific to the asset or liability.

In order to determine if a market is active or inactive for a security, we consider a number of factors, including, but not limited to, the volume of trading activity for the security in question, the price of the security compared to its par value (for fixed maturity investments), and other factors that may be indicative of market activity.

At December 31, 2020, we classified \$81.2 million and \$7.6 million of our assets and liabilities, respectively, at fair value on a recurring basis using Level 3 inputs. This represented 0.3% and 0.0% of our total assets and liabilities, respectively. Level 3 fair value measurements are based on valuation techniques that use at least one significant input that is unobservable. These measurements are made under circumstances in which there is little, if any, market activity for the asset or liability. We use valuation models or other pricing techniques that require a variety of inputs including contractual terms, market prices and rates, yield curves, credit curves, measures of volatility, prepayment rates and correlations of such inputs, some of which may be unobservable, to value these Level 3 assets and liabilities.

Refer to "Note 6. Fair Value Measurements" in our "Notes to the Consolidated Financial Statements" for additional information about fair value measurements.

Impairments

The amount and timing of asset impairment is subject to significant estimation techniques and is a critical accounting estimate for us. The significant impairment reviews we complete are for our goodwill and other intangible assets and equity method investments, as described in more detail below.

Goodwill and Other Intangible Assets

Goodwill and other intangible assets acquired are initially recorded at fair value. Subsequent to initial recognition, finite lived other intangible assets are amortized over their estimated useful life, subject to impairment, and goodwill and indefinite lived other intangible assets are carried at the lower of cost or fair value, subject to impairment. If goodwill or other intangible assets are impaired, they are written down to their estimated fair values with a corresponding expense reflected in our consolidated statements of operations.

In accordance with FASB ASC Topic *Business Combinations*, we allocated the total consideration paid for TMR among acquired assets and assumed liabilities based on their fair values. We recognized identifiable finite lived intangible assets of \$11.2 million, which will be amortized over a weighted average period of 10.5 years, identifiable indefinite lived intangible assets of \$6.8 million, and certain other adjustments to the fair values of the assets acquired, liabilities assumed and shareholders' equity of TMR at March 22, 2019, based on foreign exchange rates on March 22, 2019.

In addition, we recognized goodwill of \$13.1 million, based on foreign exchange rates on March 22, 2019, attributable to the excess of the purchase price over the fair value of the net assets of TMR. Goodwill resulting from the acquisition of TMR will not be amortized but instead will be tested for impairment at least annually, as outlined below (more frequently if certain indicators are present). Goodwill is assigned to the applicable reporting unit of the acquired entities giving rise to the goodwill and other intangible assets.

We assess goodwill and other intangible assets for impairment in the fourth quarter of each year, or more frequently if events or changes in circumstances indicate that the carrying amount may not be recoverable. For purposes of the annual impairment evaluation, we assess qualitative factors to determine if events or circumstances exist that would lead us to conclude that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If we determine that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then we do not perform a quantitative evaluation. Should we determine that a quantitative analysis is required, we will first determine the fair value of the reporting unit and compare that with the carrying value, including goodwill. If the fair value of the reporting unit exceeds its carrying amount, then goodwill is not considered impaired and no further analysis is required. If the carrying amount of a reporting unit exceeds its fair value, we then proceed to determine the amount of the impairment charge, if any. There are many assumptions and estimates underlying the fair value calculation. Principally, we identify the reporting unit or business entity that the goodwill or other intangible asset is attributed to, and review historical and forecasted operating and financial performance and other underlying factors affecting such analysis, including market conditions. Other assumptions used could produce significantly different results which may result in a change in the value of goodwill or our other intangible assets and a related charge in our consolidated statements of operations. An impairment charge could be recognized in the event of a significant decline in the implied fair value of those operations where the goodwill or other intangible assets are applicable. In the event we determine that the value of goodwill has become impaired, an accounting charge will be taken in the fiscal quarter in which such determination is made, which could have a material adverse effect on our results of operations in the period in which the impairment charge is recorded.

As a result of the Company's impairment assessment performed during the fourth quarter of 2020, the Company determined that indefinite lived intangible assets of \$6.8 million, recognized in relation to the acquisition of TMR, should be written down to \$Nil. The Company recorded an intangible asset impairment charge of \$6.8 million during the year ended December 31, 2020. Refer to "Note 4. Goodwill and Other Intangible Assets" in our "Notes to the Consolidated Financial Statements" for additional information with respect to the impairment.

As at December 31, 2020, excluding the amounts recorded in investments in other ventures, under the equity method, as noted below, our consolidated balance sheets include \$211.0 million of goodwill (2019 - \$210.7 million) and \$38.6 million of other intangible assets (2019 - \$51.6 million). Impairment charges related to these balances were \$6.8 million during the year ended December 31, 2020 (2019 - \$Nil, 2018 - \$Nil). In the future, it is possible we will hold more goodwill and intangible assets, which would increase the degree of judgment and uncertainty embedded in our financial statements, and potentially increase the volatility of our reported results.

Deferred Acquisition Costs and Value of Business Acquired (“VOBA”)

VOBA was initially recorded to reflect the establishment of the value of business acquired asset in connection with the acquisition of TMR, which represents the estimated present value of the expected underwriting profit within the unearned premiums liability, net of reinsurance, less costs to service the related policies and a risk premium. VOBA is derived using, among other things, estimated loss ratios by line of business to calculate the underwriting profit, weighted average cost of capital, risk premium and expected payout patterns. The adjustment for VOBA will be amortized to acquisition expenses over approximately two years, as the contracts for business in-force as of the acquisition date expire.

Investments in Other Ventures, Under Equity Method

Investments in which we have significant influence over the operating and financial policies of the investee are classified as investments in other ventures, under equity method, and are accounted for under the equity method of accounting. Under this method, we record our proportionate share of income or loss from such investments in our results for the period. Any decline in the value of investments in other ventures, under equity method, including goodwill and other intangible assets arising upon acquisition of the investee, considered by management to be other-than-temporary, is reflected in our consolidated statements of operations in the period in which it is determined. As of December 31, 2020, we had \$98.4 million (2019 - \$106.5 million) in investments in other ventures, under equity method on our consolidated balance sheets, including \$10.6 million of goodwill and \$12.4 million of other intangible assets (2019 - \$10.6 million and \$14.3 million). The carrying value of our investments in other ventures, under equity method, individually or in the aggregate, may, and likely will, differ from the realized value we may ultimately attain, perhaps significantly so.

In determining whether an equity method investment is impaired, we take into consideration a variety of factors including the operating and financial performance of the investee, the investee’s future business plans and projections, recent transactions and market valuations of publicly traded companies where available, discussions with the investee’s management, and our intent and ability to hold the investment until it recovers in value. Accordingly, we make assumptions and estimates in assessing whether an impairment has occurred and if, in the future, our assumptions and estimates made in assessing the fair value of these investments change, this could result in a material decrease in the carrying value of these investments. This would cause us to write-down the carrying value of these investments and could have a material adverse effect on our results of operations in the period the impairment charge is taken. We do not have any current plans to dispose of these investments, and cannot assure you we will consummate future transactions in which we realize the value at which these holdings are reflected in our financial statements. We have not recorded any other-than-temporary impairment charges related to goodwill and other intangible assets associated with our investments in other ventures, under the equity method in any of the years ended December 31, 2020, 2019 or 2018. See “Note 4. Goodwill and Other Intangible Assets” in our “Notes to the Consolidated Financial Statements” for additional information.

Income Taxes

Income taxes have been provided in accordance with the provisions of FASB ASC Topic *Income Taxes*. Deferred tax assets and liabilities result from temporary differences between the amounts recorded in our consolidated financial statements and the tax basis of our assets and liabilities. Such temporary differences are primarily due to net operating loss carryforwards and GAAP versus tax basis accounting differences relating to unearned premiums, reserves for claims and claim expenses, deferred finance charges, deferred underwriting results, accrued expenses, investments, deferred acquisition expenses, intangible assets, amortization and depreciation and VOBA. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period in which the change in tax rates is enacted. A valuation allowance against net deferred tax assets is recorded if it is more likely than not that all, or some portion, of the benefits related to deferred tax assets will not be realized.

At December 31, 2020, our net deferred tax asset (prior to our valuation allowance) and valuation allowance were \$138.0 million (2019 - \$119.6 million) and \$88.7 million (2019 - \$75.7 million), respectively. See “Note 15. Taxation” in our “Notes to the Consolidated Financial Statements” for additional information. At each balance sheet date, we assess the need to establish a valuation allowance that reduces the net deferred tax asset when it is more likely than not that all, or some portion, of the net deferred tax assets will not be

realized. The valuation allowance assessment is performed separately in each taxable jurisdiction based on all available information including projections of future GAAP taxable income from each tax-paying component in each tax jurisdiction. The valuation allowance relates to a substantial portion of our net deferred tax assets in most jurisdictions in which we do business. It excludes Bermuda and our U.S. operations that existed prior to the acquisition of TMR, which only have a small valuation allowance against finite lived tax carryforwards.

We have unrecognized tax benefits of \$Nil as of December 31, 2020 (2019 - \$Nil). Interest and penalties related to unrecognized tax benefits, would be recognized in income tax expense. At December 31, 2020, interest and penalties accrued on unrecognized tax benefits were \$Nil (2019 - \$Nil).

The following filed income tax returns are open for examination with the applicable tax authorities: tax years 2017 through 2019 with the IRS; 2016 through 2019 with Ireland; 2018 through 2019 with the U.K.; 2016 through 2019 with Singapore; 2019 with Switzerland; and 2016 through 2019 with Australia. We do not expect the resolution of these open years to have a significant impact on our consolidated statements of operations and financial condition.

SUMMARY OF RESULTS OF OPERATIONS

(in thousands, except per share amounts and percentages)			
Statements of Operations Highlights			
Year ended December 31,	2020	2019	2018
Gross premiums written	\$ 5,806,165	\$ 4,807,750	\$ 3,310,427
Net premiums written	\$ 4,096,333	\$ 3,381,493	\$ 2,131,902
Net premiums earned	\$ 3,952,462	\$ 3,338,403	\$ 1,976,129
Net claims and claim expenses incurred	2,924,609	2,097,021	1,120,018
Acquisition expenses	897,677	762,232	432,989
Operational expenses	206,687	222,733	178,267
Underwriting (loss) income	\$ (76,511)	\$ 256,417	\$ 244,855
Net investment income	\$ 354,038	\$ 424,207	\$ 269,965
Net realized and unrealized gains (losses) on investments	820,636	414,109	(183,168)
Total investment result	\$ 1,174,674	\$ 838,316	\$ 86,797
Net income	\$ 993,058	\$ 950,267	\$ 268,917
Net income available to RenaissanceRe common shareholders	\$ 731,482	\$ 712,042	\$ 197,276
Net income available to RenaissanceRe common shareholders per common share – diluted	\$ 15.31	\$ 16.29	\$ 4.91
Dividends per common share	\$ 1.40	\$ 1.36	\$ 1.32
Key Ratios			
Year ended December 31,	2020	2019	2018
Net claims and claim expense ratio – current accident year	78.6 %	63.6 %	70.4 %
Net claims and claim expense ratio – prior accident years	(4.6)%	(0.8)%	(13.7)%
Net claims and claim expense ratio – calendar year	74.0 %	62.8 %	56.7 %
Underwriting expense ratio	27.9 %	29.5 %	30.9 %
Combined ratio	101.9 %	92.3 %	87.6 %
Return on average common equity	11.7 %	14.1 %	4.7 %
Book Value			
At December 31,	2020	2019	2018
Book value per common share	\$ 138.46	\$ 120.53	\$ 104.13
Accumulated dividends per common share	22.08	20.68	19.32
Book value per common share plus accumulated dividends	\$ 160.54	\$ 141.21	\$ 123.45
Change in book value per common share plus change in accumulated dividends	16.0 %	17.1 %	5.7 %
Balance Sheet Highlights			
At December 31,	2020	2019	2018
Total assets	\$ 30,820,580	\$ 26,330,094	\$ 18,676,196
Total shareholders' equity attributable to RenaissanceRe	\$ 7,560,248	\$ 5,971,367	\$ 5,045,080

Results of Operations for 2020 Compared to 2019

Net income available to RenaissanceRe common shareholders was \$731.5 million in 2020, compared to \$712.0 million in 2019, an increase of \$19.4 million. As a result of our net income available to RenaissanceRe common shareholders in 2020, we generated an annualized return on average common equity of 11.7% and our book value per common share increased from \$120.53 at December 31, 2019 to \$138.46 at December 31, 2020, a 16.0% increase, after considering the change in accumulated dividends paid to our common shareholders.

The most significant events affecting our financial performance during 2020, on a comparative basis to 2019, include:

- *Impact of Weather-Related Large Loss Events and COVID-19* - in 2020, we had a net negative impact on our net income available to RenaissanceRe common shareholders of \$493.6 million resulting from the 2020 Weather-Related Large Loss Events (as defined in the table below) and \$286.6 million resulting from losses related to the COVID-19 pandemic. This compares to a net negative impact on our net income available to RenaissanceRe common shareholders of \$348.2 million from the combined impacts of the 2019 Large Loss Events (as defined below).
- *Underwriting Results* - we incurred an underwriting loss of \$76.5 million and had a combined ratio of 101.9% in 2020, compared to underwriting income of \$256.4 million and a combined ratio of 92.3% in 2019. Our underwriting loss in 2020 was comprised of an \$87.5 million underwriting loss in our Casualty and Specialty segment, offset by underwriting income of \$11.2 million in our Property segment. In comparison, underwriting income in 2019 was comprised of \$209.3 million of underwriting income in our Property segment and \$46.0 million of underwriting income in our Casualty and Specialty segment.

Our underwriting result in 2020 was principally impacted by the 2020 Weather-Related Large Loss Events and the COVID-19 losses. The 2020 Weather-Related Large Loss Events resulted in a net negative impact on the underwriting result of \$668.5 million and added 17.2 percentage points to the combined ratio, primarily in the Property segment. The COVID-19 losses, which impacted both the Property and Casualty and Specialty segments, resulted in a net negative impact on the underwriting result of \$351.9 million and added 8.9 percentage points to the combined ratio.

Partially offsetting the impact of the 2020 Weather-Related Large Loss Events and COVID-19 losses was favorable development on prior accident years of \$183.8 million, primarily related to large loss events in 2019, 2018 and 2017, as well as favorable movements in other assumed losses and ceded recoveries. This favorable development reduced the combined ratio by 4.6 percentage points and was principally in the Property segment.

In comparison, our underwriting result in 2019 was principally impacted by Typhoon Hagibis, the Q3 2019 Catastrophe Events (as defined below) and certain losses associated with aggregate loss contracts in 2019 (the "2019 Aggregate Losses" and collectively, the "2019 Large Loss Events"), which had a net negative impact on our underwriting result of \$418.9 million and added 12.9 percentage points to the combined ratio, principally in the Property segment;

- *Gross Premiums Written* - our gross premiums written increased by \$1.0 billion, or 20.8%, to \$5.8 billion, in 2020, compared to 2019, with an increase of \$568.2 million in the Property segment and an increase of \$430.3 million in the Casualty and Specialty segment;
- *Investment Results* - our total investment result, which includes the sum of net investment income and net realized and unrealized gains on investments, was \$1.2 billion in 2020, compared to \$838.3 million in 2019, an increase of \$336.4 million. The increase was primarily driven by net realized and unrealized gains on investments of \$820.6 million in 2020, compared to \$414.1 million in 2019. The net realized and unrealized gains on investments in 2020 were driven by net realized and unrealized gains on the fixed maturity investments portfolio, equity investments trading and investment-related derivatives;
- *Net Income Attributable to Redeemable Noncontrolling Interests* - our net income attributable to redeemable noncontrolling interests was \$230.7 million in 2020, compared to \$201.5 million in 2019. The increase was due to improved performance from Medici and Vermeer, compared to 2019, partially offset by lower underlying performance in DaVinci which was negatively impacted by the 2020 Weather-Related Large Loss Events and the COVID-19 losses; and

- *Common Share Offering* - on June 5, 2020, we issued 6,325,000 of our common shares in an underwritten public offering at a public offering price of \$166.00 per share. Concurrently with the public offering, we raised \$75.0 million through the issuance of 451,807 of our common shares at a price of \$166.00 per share to State Farm, one of our existing stockholders, in a private placement. The total net proceeds from the offerings were \$1.1 billion.

Results of Operations for 2019 Compared to 2018

Net income available to RenaissanceRe common shareholders was \$712.0 million in 2019, compared to \$197.3 million in 2018, an increase of \$514.8 million. As a result of our net income available to RenaissanceRe common shareholders in 2019, we generated an annualized return on average common equity of 14.1% and our book value per common share increased from \$104.13 at December 31, 2018 to \$120.53 at December 31, 2019, a 17.1% increase, after considering the change in accumulated dividends paid to our common shareholders.

The most significant events affecting our financial performance during 2019, on a comparative basis to 2018, include:

- *TMR* - the second quarter of 2019 was the first quarter that reflected the results of TMR in our results of operations. As such, our results of operations for 2019, compared to 2018, should be viewed in that context;
- *Impact of Catastrophe Events* - in 2019, we had a net negative impact on our net income available to RenaissanceRe common shareholders of \$348.2 million from Hurricane Dorian and Typhoon Faxai (the "Q3 2019 Catastrophe Events"), Typhoon Hagibis and losses associated with aggregate loss contracts (collectively, the "2019 Large Loss Events"). This compares to a net negative impact on our net income available to RenaissanceRe common shareholders of \$86.4 million from the combined impacts of the 2018 Large Loss Events and changes in estimates of the 2017 Large Loss Events, in 2018;
- *Underwriting Results* - we generated underwriting income of \$256.4 million and had a combined ratio of 92.3% in 2019, compared to underwriting income of \$244.9 million and a combined ratio of 87.6% in 2018. Our underwriting income in 2019 was comprised of \$209.3 million of underwriting income in our Property segment and \$46.0 million of underwriting income in our Casualty and Specialty segment. In comparison, our underwriting income in 2018 was comprised of our Property segment, which generated underwriting income of \$262.1 million, and our Casualty and Specialty segment, which incurred an underwriting loss of \$17.0 million.

Included in our underwriting result is the net negative impact associated with the 2019 Large Loss Events of \$418.9 million and a corresponding increase of 12.9 percentage points to the combined ratio. In comparison, in 2018, the underwriting result included the net negative impact associated with the combined impacts of the 2018 Large Loss Events and changes in estimates of the 2017 Large Loss Events of \$182.5 million and a corresponding increase in the combined ratio of 10.0 percentage points;

- *Gross Premiums Written* - our gross premiums written increased by \$1.5 billion, or 45.2%, to \$4.8 billion, in 2019, compared to 2018, with an increase of \$670.1 million in the Property segment and an increase of \$827.3 million in the Casualty and Specialty segment. These increases were primarily driven by expanded participation on existing transactions, certain new transactions, rate improvements, and the impact of the acquisition of TMR;
- *Investment Results* - our total investment result, which includes the sum of net investment income and net realized and unrealized gains on investments, was a gain of \$838.3 million in 2019, compared to a gain of \$86.8 million in 2018, an increase of \$751.5 million. Impacting the investment results were higher returns on portfolios of fixed maturity and short term investments, equity investments trading, catastrophe bonds and investments-related derivatives. Also driving the investment result for 2019 was higher average invested assets, primarily resulting from the acquisition of TMR, combined with capital raised in certain of our consolidated third-party capital vehicles during 2019, including DaVinciRe, Upsilon RFO, Vermeer and Medici, and the subsequent investment of those funds as part of our consolidated investment portfolio; and
- *Net Income Attributable to Redeemable Noncontrolling Interests* - our net income attributable to redeemable noncontrolling interests was \$201.5 million in 2019, compared to \$41.6 million in 2018. This

increase was principally due to improved performance from DaVinciRe and the addition of net income attributable to Vermeer in 2019, compared to 2018, which was negatively impacted by significant losses in DaVinciRe associated with Hurricane Michael, the wildfires in California during the fourth quarter of 2018 (the “Q4 2018 California Wildfires”) and changes in certain losses associated with aggregate loss contracts in 2018 (the “2018 Aggregate Losses”).

Net Negative Impact

Net negative impact includes the sum of estimates of net claims and claim expenses incurred, earned reinstatement premiums assumed and ceded, earned and lost profit commissions and redeemable noncontrolling interest. Our estimates of net negative impact are based on a review of our potential exposures, preliminary discussions with certain counterparties and actuarial modeling techniques. Our actual net negative impact, both individually and in the aggregate, may vary from these estimates, perhaps materially. Changes in these estimates will be recorded in the period in which they occur.

Meaningful uncertainty regarding the estimates and the nature and extent of the losses from catastrophe events, driven by the magnitude and recent nature of each event, the geographic areas impacted by the events, relatively limited claims data received to date, the contingent nature of business interruption and other exposures, potential uncertainties relating to reinsurance recoveries and other factors inherent in loss estimation, among other things.

We continue to evaluate industry trends and our own potential exposure associated with the ongoing COVID-19 pandemic, and expect historically significant industry losses to emerge over time as the full impact of the pandemic and its effects on the global economy are realized. Among other things, we continue to actively monitor information received from or reported by clients, brokers, industry actuaries, regulators, courts, and others, and to assess that information in the context of our own portfolio. Our loss estimates represent our best estimate of incurred losses based on currently available information, and actual losses may vary materially from these estimates.

Weather-Related Large Loss Events

The financial data in the table below provides additional information detailing the net negative impact of the 2020 Weather-Related Large Loss Events on our consolidated financial statements in 2020.

<u>Year ended December 31, 2020</u> (in thousands)	<u>Q3 2020 Weather-Related Catastrophe Events (1)</u>	<u>Q4 2020 Weather-Related Catastrophe Events (2)</u>	<u>2020 Aggregate Losses (3)</u>	<u>Total 2020 Weather-Related Large Loss Events (4)</u>
Net claims and claims expenses incurred	\$ (456,425)	\$ (129,394)	\$ (153,757)	\$ (739,576)
Assumed reinstatement premiums earned	68,094	6,323	4,997	79,414
Ceded reinstatement premiums earned	(4,019)	(1,678)	—	(5,697)
Earned (lost) profit commissions	837	2,774	(6,270)	(2,659)
Net negative impact on underwriting result	(391,513)	(121,975)	(155,030)	(668,518)
Redeemable noncontrolling interest	92,823	36,811	45,270	174,904
Net negative impact on net income available to RenaissanceRe common shareholders	<u>\$ (298,690)</u>	<u>\$ (85,164)</u>	<u>\$ (109,760)</u>	<u>\$ (493,614)</u>

The financial data in the table below provides additional information detailing the net negative impact of the 2020 Weather-Related Large Loss Events on our segment underwriting results and consolidated combined ratio in 2020.

Year ended December 31, 2020 (in thousands, except percentages)	Q3 2020 Weather-Related Catastrophe Events (1)	Q4 2020 Weather-Related Catastrophe Events (2)	2020 Aggregate Losses (3)	Total 2020 Weather-Related Large Loss Events (4)
Net negative impact on Property segment underwriting result	\$ (378,674)	\$ (118,150)	\$ (155,030)	\$ (651,854)
Net negative impact on Casualty and Specialty segment underwriting result	(12,839)	(3,825)	—	(16,664)
Net negative impact on underwriting result	<u>\$ (391,513)</u>	<u>\$ (121,975)</u>	<u>\$ (155,030)</u>	<u>\$ (668,518)</u>
Percentage point impact on consolidated combined ratio	10.0	3.1	3.9	17.2

- (1) "Q3 2020 Weather-Related Catastrophe Events" includes Hurricane Laura, Hurricane Sally, the third quarter 2020 wildfires in California, Oregon and Washington, other third quarter catastrophe events including the August 2020 derecho which impacted the U.S. Midwest, Hurricane Isaias, and Typhoon Maysak.
- (2) "Q4 2020 Weather-Related Catastrophe Events" includes Hurricanes Zeta, Delta, Hurricane Eta and wildfires on the West Coast of the United States during the fourth quarter of 2020.
- (3) "2020 Aggregate Losses" includes loss estimates associated with aggregate loss contracts triggered during 2020 primarily as a result of losses associated with the Q3 2020 Weather-Related Catastrophe Events and Q4 2020 Weather-Related Catastrophe Events.
- (4) "2020 Weather-Related Large Loss Events" includes the Q3 2020 Weather-Related Catastrophe Events, Q4 2020 Weather-Related Catastrophe Events and the aggregate losses in 2020 described in footnote (3).

COVID-19 Losses

In 2020, losses related to the COVID-19 pandemic resulted in a net negative impact on net income available to RenaissanceRe common shareholders of \$286.6 million, which reflects a net negative impact on underwriting result of \$351.9 million, offset by redeemable noncontrolling interest of \$65.4 million. The net negative impact on underwriting result had a 8.9 percentage point impact on the consolidated combined ratio, and is comprised of net claims and claims expenses incurred of \$385.6 million, offset by net reinstatement premiums earned and earned profit commissions of \$33.6 million. The net negative impact on underwriting result was \$235.0 million in the Property Segment, principally representing the cost of claims incurred but not yet reported with respect to exposures such as business interruption coverage, and \$117.0 million for the Casualty and Specialty segment, primarily representing the cost of claims incurred but not yet reported, with respect to exposures such as event contingency and event-based casualty covers.

The financial data below provides additional details regarding the net negative impact of certain events on our consolidated results of operations in 2019.

Year ended December 31, 2019 (in thousands)	Typhoon Hagibis	Q3 2019 Catastrophe Events	2019 Aggregate Losses	Total 2019 Large Loss Events
Net claims and claims expenses incurred	\$ (199,305)	\$ (187,188)	\$ (97,591)	\$ (484,084)
Assumed reinstatement premiums earned	28,829	24,596	183	53,608
Ceded reinstatement premiums earned	(219)	(574)	—	(793)
Earned (lost) profit commissions	7,509	3,100	1,740	12,349
Net negative impact on underwriting result	(163,186)	(160,066)	(95,668)	(418,920)
Redeemable noncontrolling interest - DaVinciRe	35,078	22,677	12,932	70,687
Net negative impact on net income available to RenaissanceRe common shareholders	<u>\$ (128,108)</u>	<u>\$ (137,389)</u>	<u>\$ (82,736)</u>	<u>\$ (348,233)</u>

The financial data below provides additional information detailing the net negative impact of certain events on our segment underwriting results and consolidated combined ratio in 2019.

Year ended December 31, 2019 (in thousands, except percentages)	Typhoon Hagibis	Q3 2019 Catastrophe Events	2019 Aggregate Losses	Total 2019 Large Loss Events
Net negative impact on Property segment underwriting result	\$ (161,654)	\$ (157,064)	\$ (95,668)	\$ (414,386)
Net negative impact on Casualty and Specialty segment underwriting result	(1,532)	(3,002)	—	(4,534)
Net negative impact on underwriting result	<u>\$ (163,186)</u>	<u>\$ (160,066)</u>	<u>\$ (95,668)</u>	<u>\$ (418,920)</u>
Percentage point impact on consolidated combined ratio	5.0	4.9	2.8	12.9

The financial data below provides additional details regarding the net negative impact of certain events on our consolidated results of operations in 2018.

Year ended December 31, 2018 (in thousands)	Q3 2018 Catastrophe Events (1)	Q4 2018 Catastrophe Events (2)	2018 Aggregate Losses	Total 2018 Large Loss Events	Changes in Estimates of the 2017 Large Loss Events (3)	Total
(Increase) decrease in net claims and claims expenses incurred	\$ (152,672)	\$ (232,702)	\$ (54,818)	\$ (440,192)	\$ 187,484	\$ (252,708)
Assumed reinstatement premiums earned	27,165	85,663	2	112,830	(18,374)	94,456
Ceded reinstatement premiums earned	(209)	(26,003)	—	(26,212)	(2)	(26,214)
Earned (lost) profit commissions	2,279	11,971	(900)	13,350	(11,355)	1,995
Net (negative) positive impact on underwriting result	(123,437)	(161,071)	(55,716)	(340,224)	157,753	(182,471)
Redeemable noncontrolling interest - DaVinciRe	20,815	87,245	16,035	124,095	(27,983)	96,112
Net (negative) positive impact on net income available to RenaissanceRe common shareholders	<u>\$ (102,622)</u>	<u>\$ (73,826)</u>	<u>\$ (39,681)</u>	<u>\$ (216,129)</u>	<u>\$ 129,770</u>	<u>\$ (86,359)</u>

- (1) "Q3 2018 Catastrophe Events" includes Typhoons Jebi, Mangkhut and Trami, Hurricane Florence and the wildfires in California during the third quarter of 2018.
- (2) "Q4 2018 Catastrophe Events" includes Hurricane Michael and the Q4 2018 California Wildfires.
- (3) An initial estimate of the net negative impact of the 2017 Large Loss Events was recorded in our consolidated financial statements during 2017. The amounts noted in the table above reflect changes in the estimates of the net negative impact of the 2017 Large Loss Events recorded in 2018.

The financial data below provides additional details regarding the net negative impact of certain events on our segment underwriting results and consolidated combined ratio in 2018.

Year ended December 31, 2018 (in thousands, except percentages)	Q3 2018 Catastrophe Events	Q4 2018 Catastrophe Events	2018 Aggregate Losses	Total 2018 Large Loss Events	Changes in Estimates of the 2017 Large Loss Events	Total
Net (negative) positive impact on Property segment underwriting result	\$ (121,875)	\$ (161,071)	\$ (55,716)	\$ (338,662)	\$ 145,724	\$ (192,938)
Net (negative) positive impact on Casualty and Specialty segment underwriting result (1)	(1,562)	—	—	(1,562)	12,029	10,467
Net (negative) positive impact on underwriting result	<u>\$ (123,437)</u>	<u>\$ (161,071)</u>	<u>\$ (55,716)</u>	<u>\$ (340,224)</u>	<u>\$ 157,753</u>	<u>\$ (182,471)</u>
Percentage point impact on consolidated combined ratio	6.5	8.8	2.8	18.6	(8.0)	10.0

(1) Impact on Casualty and Specialty segment result includes loss estimates from catastrophe exposed contracts within certain specialty lines of business (i.e., energy, marine, and regional multi-line business). Amounts shown for the Q4 2018 Catastrophe Events, which includes the Q4 2018 California Wildfires, do not reflect impacts from certain casualty liability exposures within the Casualty and Specialty segment associated with the Q4 2018 California Wildfires, as different actuarial techniques are used to estimate losses related to such exposures.

Underwriting Results by Segment

Property Segment

Below is a summary of the underwriting results and ratios for our Property segment:

Year ended December 31, (in thousands, except percentages)	2020	2019	2018
Gross premiums written	\$2,999,142	\$ 2,430,985	\$ 1,760,926
Net premiums written	\$ 2,037,200	\$ 1,654,259	\$ 1,055,188
Net premiums earned	\$ 1,936,215	\$ 1,627,494	\$ 1,050,831
Net claims and claim expenses incurred	1,435,735	965,424	497,895
Acquisition expenses	353,700	313,761	177,912
Operational expenses	135,547	139,015	112,954
Underwriting income	\$ 11,233	\$ 209,294	\$ 262,070
Net claims and claim expenses incurred – current accident year	\$ 1,592,996	\$ 968,357	\$ 719,185
Net claims and claim expenses incurred – prior accident years	(157,261)	(2,933)	(221,290)
Net claims and claim expenses incurred – total	\$ 1,435,735	\$ 965,424	\$ 497,895
Net claims and claim expense ratio – current accident year	82.3 %	59.5 %	68.4 %
Net claims and claim expense ratio – prior accident years	(8.1)%	(0.2)%	(21.0)%
Net claims and claim expense ratio – calendar year	74.2 %	59.3 %	47.4 %
Underwriting expense ratio	25.2 %	27.8 %	27.7 %
Combined ratio	99.4 %	87.1 %	75.1 %

Property Gross Premiums Written

In 2020, our Property segment gross premiums written increased by \$568.2 million, or 23.4%, to \$3.0 billion, compared to \$2.4 billion in 2019.

Gross premiums written in our catastrophe class of business were \$1.9 billion in 2020, an increase of \$291.3 million, or 18.3%, compared to 2019. The increase in gross premiums written in our catastrophe class of business in 2020 was primarily driven by expanded participation on existing transactions, certain new transactions, rate improvements and business acquired as a result of the acquisition of TMR.

Gross premiums written in our other property class of business were \$1.1 billion in 2020, an increase of \$276.8 million, or 33.1%, compared to 2019. The increase in gross premiums written in our other property class of business was primarily driven by growth from existing relationships, new opportunities across a number of our underwriting platforms, and business acquired as a result of the acquisition of TMR.

In 2019, our Property segment gross premiums written increased by \$670.1 million, or 38.1%, to \$2.4 billion, compared to \$1.8 billion in 2018.

Gross premiums written in our catastrophe class of business were \$1.6 billion in 2019, an increase of \$246.1 million, or 18.2%, compared to 2018. The increase in gross premiums written in our catastrophe class of business was primarily driven by expanded participation on existing transactions, certain new transactions, rate improvements, and the acquisition of TMR.

Gross premiums written in our other property class of business were \$835.5 million in 2019, an increase of \$423.9 million, or 103.0%, compared to 2018. The increase in gross premiums written in our other property class of business was primarily driven by growth across our underwriting platforms, both from existing

relationships and through new opportunities we believe have comparably attractive risk-return attributes, rate improvements, and business acquired in connection with the acquisition of TMR.

As our other property class of business has become a larger percentage of our Property segment gross premiums written, the amount of proportional business has increased. Proportional business typically has relatively higher premiums per unit of expected underwriting income, together with a higher acquisition expense ratio and combined ratio, than traditional excess of loss reinsurance.

Our Property segment gross premiums written continue to be characterized by a large percentage of U.S. and Caribbean premium, as we have found business derived from exposures in Europe, Asia and the rest of the world to be, in general, less attractive on a risk-adjusted basis during recent periods. A significant amount of our U.S. and Caribbean premium provides coverage against windstorms, notably U.S. Atlantic windstorms, as well as earthquakes and other natural and man-made catastrophes.

Property Ceded Premiums Written

<u>Year ended December 31,</u> (in thousands)	<u>2020</u>	<u>2019</u>	<u>2018</u>
Ceded premiums written - Property	\$ 961,942	\$ 776,726	\$ 705,738

Ceded premiums written in our Property segment increased \$185.2 million, to \$961.9 million, in 2020, compared to \$776.7 million in 2019. The increase in ceded premiums written was principally due to certain of the gross premiums written in the catastrophe class of business noted above being ceded to third-party investors in our managed vehicles, primarily RenaissanceRe Upsilon Fund Ltd., as well as an overall increase in ceded purchases as part of the Company's gross-to-net strategy.

Ceded premiums written in our Property segment increased \$71.0 million, to \$776.7 million, in 2019, compared to \$705.7 million in 2018. The increase in ceded premiums written was principally due to a significant portion of the increase in gross premiums written in the catastrophe class of business noted above being ceded to third-party investors in our managed vehicles, in particular Upsilon Fund, as well as an overall increase in ceded purchases.

Due to the potential volatility of the reinsurance contracts which we sell, we purchase reinsurance to reduce our exposure to large losses and to help manage our risk portfolio. To the extent that appropriately priced coverage is available, we anticipate continued use of retrocessional reinsurance to reduce the impact of large losses on our financial results and to manage our portfolio of risk; however, the buying of ceded reinsurance in our Property segment is based on market opportunities and is not based on placing a specific reinsurance program each year. In addition, in future periods, we may utilize the growing market for insurance-linked securities to expand our purchases of retrocessional reinsurance if we find the pricing and terms of such coverages attractive.

Property Underwriting Results

Our Property segment generated underwriting income of \$11.2 million in 2020, compared to \$209.3 million in 2019, a decrease of \$198.1 million. In 2020, our Property segment generated a net claims and claim expense ratio of 74.2%, an underwriting expense ratio of 25.2% and a combined ratio of 99.4%, compared to 59.3%, 27.8% and 87.1%, respectively, in 2019.

Principally impacting the Property segment underwriting result and combined ratio in 2020 were the 2020 Weather-Related Large Loss Events, which resulted in a net negative impact on the underwriting result of \$651.9 million and added 35.0 percentage points to the combined ratio, and COVID-19 losses, which resulted in a net negative impact on the underwriting result of \$235.0 million and added 12.3 percentage points to the combined ratio. Partially offsetting the impact of the 2020 Weather-Related Large Loss Events and COVID-19 losses was favorable development on prior accident years of \$157.3 million, primarily related to large loss events in 2019, 2018 and 2017, as well as favorable movements in other assumed losses and ceded recoveries. This favorable development reduced the Property segment combined ratio by 8.1 percentage points. In comparison, 2019 was principally impacted by the 2019 Large Loss Events, which resulted in a net negative impact on the Property segment underwriting result of \$414.4 million and a corresponding increase in the Property segment combined ratio of 26.7 percentage points.

Our Property segment generated underwriting income of \$209.3 million in 2019, compared to \$262.1 million in 2018, a decrease of \$52.8 million. In 2019, our Property segment generated a net claims and claim expense ratio of 59.3%, an underwriting expense ratio of 27.8% and a combined ratio of 87.1%, compared to 47.4%, 27.7% and 75.1%, respectively, in 2018.

Principally impacting the Property segment underwriting result and combined ratio in 2019 were the 2019 Large Loss Events, which resulted in a net negative impact on the Property segment underwriting result of \$414.4 million and a corresponding increase in the Property segment combined ratio of 26.7 percentage points. In comparison, 2018 was impacted by the 2018 Large Loss Events, which resulted in a net negative impact on the underwriting result of \$338.7 million, and a corresponding increase in the combined ratio of 37.4 percentage points. This was partially offset by a net positive impact on the underwriting result associated with changes in the estimates of the net negative impact on the underwriting result of the 2017 Large Loss Events of \$145.7 million, and a corresponding decrease in the combined ratio of 14.0 percentage points.

In addition, in 2019, net favorable development on prior accident years net claims and claim expenses of \$2.9 million, or a decrease in the combined ratio of 0.2 percentage points, was primarily driven by favorable development on the 2017 Large Loss Events, which was mostly offset by adverse development on the 2018 Large Loss Events, compared to net favorable development of \$221.3 million, or 21.0 percentage points, in 2018. The net favorable development in 2018 included the decreases in the estimates of the net negative impact of the 2017 Large Loss Events noted above. Refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Critical Accounting Estimates—Claims and Claim Expense Reserves” and “Note 8. Reserve for Claims and Claim Expenses” in our “Notes to the Consolidated Financial Statements” for additional discussion of our reserving techniques and prior year development of net claims and claim expenses.

Casualty and Specialty Segment

Below is a summary of the underwriting results and ratios for our Casualty and Specialty segment:

Year ended December 31, (in thousands, except percentages)	2020	2019	2018
Gross premiums written	\$ 2,807,023	\$ 2,376,765	\$ 1,549,501
Net premiums written	\$ 2,059,133	\$ 1,727,234	\$ 1,076,714
Net premiums earned	\$ 2,016,247	\$ 1,710,909	\$ 925,298
Net claims and claim expenses incurred	1,488,662	1,131,637	622,320
Acquisition expenses	543,977	448,678	255,079
Operational expenses	71,140	84,546	64,883
Underwriting (loss) income	\$ (87,532)	\$ 46,048	\$ (16,984)
Net claims and claim expenses incurred – current accident year	\$ 1,515,425	\$ 1,155,519	\$ 671,582
Net claims and claim expenses incurred – prior accident years	(26,763)	(23,882)	(49,262)
Net claims and claim expenses incurred – total	\$ 1,488,662	\$ 1,131,637	\$ 622,320
Net claims and claim expense ratio – current accident year	75.2 %	67.5 %	72.6 %
Net claims and claim expense ratio – prior accident years	(1.4)%	(1.4)%	(5.3)%
Net claims and claim expense ratio – calendar year	73.8 %	66.1 %	67.3 %
Underwriting expense ratio	30.5 %	31.2 %	34.5 %
Combined ratio	104.3 %	97.3 %	101.8 %

Casualty and Specialty Gross Premiums Written

In 2020, our Casualty and Specialty segment gross premiums written increased by \$430.3 million, or 18.1%, to \$2.8 billion, compared to \$2.4 billion in 2019. The increase was due to growth from new and existing business opportunities written in the current period and prior periods across various classes of business within the segment, and business acquired in connection with the acquisition of TMR.

In 2019, our Casualty and Specialty segment gross premiums written increased by \$827.3 million, or 53.4%, to \$2.4 billion, compared to \$1.5 billion in 2018. The increase in gross premiums written in the Casualty and Specialty segment was primarily due to growth from new and existing business opportunities written in the current and prior periods across various classes of business within the segment, and business acquired in connection with the acquisition of TMR.

Our relative mix of business between proportional business and excess of loss business has fluctuated in the past and will likely continue to do so in the future. Proportional business typically has relatively higher premiums per unit of expected underwriting income, together with a higher combined ratio, than traditional excess of loss reinsurance. In addition, proportional coverage tends to be exposed to relatively more attritional, and frequent, losses, while being subject to less expected severity.

Casualty and Specialty Ceded Premiums Written

Year ended December 31, (in thousands)	2020	2019	2018
Ceded premiums written - Casualty and Specialty	\$ 747,890	\$ 649,531	\$ 472,787

Ceded premiums written in our Casualty and Specialty segment increased by \$98.4 million, to \$747.9 million, in 2020, compared to \$649.5 million in 2019, primarily resulting from increased gross premiums written subject to our retrocessional quota share reinsurance programs.

Ceded premiums written in our Casualty and Specialty segment increased by \$176.7 million, to \$649.5 million, in 2019, compared to \$472.8 million in 2018, primarily resulting from increased gross premiums written subject to our retrocessional quota share reinsurance programs.

As in our Property segment, the buying of ceded reinsurance in our Casualty and Specialty segment is based on market opportunities and is not based on placing a specific reinsurance program each year.

Casualty and Specialty Underwriting Results

Our Casualty and Specialty segment incurred an underwriting loss of \$87.5 million in 2020, compared to underwriting income of \$46.0 million in 2019. The underwriting loss in 2020 was driven by the COVID-19 losses. In 2020, our Casualty and Specialty segment generated a net claims and claim expense ratio of 73.8%, an underwriting expense ratio of 30.5% and a combined ratio of 104.3%, compared to 66.1%, 31.2% and 97.3%, respectively, in 2019.

The increase in the combined ratio in 2020 was principally driven by net claims and claim expenses associated with the COVID-19 losses of \$122.1 million, which added 6.1 percentage points to the net claims and claim expense ratio during 2020.

Our Casualty and Specialty segment experienced net favorable development on prior accident years net claims and claim expenses of \$26.8 million, or 1.4 percentage points, during 2020, compared to \$23.9 million, or 1.4 percentage points, respectively, in 2019. The net favorable development during 2020 and 2019 was principally driven by reported losses coming in lower than expected. Refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Critical Accounting Estimates—Claims and Claim Expense Reserves” and “Note 8. Reserve for Claims and Claim Expenses” in our “Notes to the Consolidated Financial Statements” for additional discussion of our reserving techniques and prior year development of net claims and claim expenses.

Our Casualty and Specialty segment generated underwriting income of \$46.0 million in 2019, compared to an underwriting loss of \$17.0 million in 2018. In 2019, our Casualty and Specialty segment generated a net claims and claim expense ratio of 66.1%, an underwriting expense ratio of 31.2% and a combined ratio of 97.3%, compared to 67.3%, 34.5% and 101.8%, respectively, in 2018.

The decrease in the Casualty and Specialty segment combined ratio in 2019 was primarily driven by an improved underwriting expense ratio as well as an overall decrease in the net claims and claims expense ratio. The decrease in the net claims and claim expense ratio was principally due to lower current accident year losses, which reduced the net claims and claim expense ratio by 5.1 percentage points in 2019, as compared to 2018 which was adversely impacted by liability exposures associated with the wildfires in California in 2018. The underwriting expense ratio in the Casualty and Specialty segment decreased 3.3 percentage points to 31.2% in 2019, compared to 34.5% in 2018, primarily due to a decrease in the operating expense ratio as a result of improved operating leverage.

Our Casualty and Specialty segment experienced net favorable development on prior accident years net claims and claim expenses of \$23.9 million, or 1.4 percentage points, during 2019, compared to \$49.3 million, or 5.3 percentage points, respectively, in 2018. The net favorable development during 2019 and 2018 was principally driven by reported losses coming in lower than expected. Refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Critical Accounting Estimates—Claims and Claim Expense Reserves” and “Note 8. Reserve for Claims and Claim Expenses” in our “Notes to the Consolidated Financial Statements” for additional discussion of our reserving techniques and prior year development of net claims and claim expenses.

Fee Income

Year ended December 31, (in thousands)	2020	2019	2018
Management Fee Income			
Joint ventures	\$ 45,499	\$ 42,546	\$ 26,387
Structured reinsurance products	34,951	35,238	33,312
Managed funds	31,026	18,636	11,462
Total management fee income	<u>111,476</u>	<u>96,420</u>	<u>71,161</u>
Performance Fee Income			
Joint ventures	10,167	9,660	15,093
Structured reinsurance products	7,525	7,693	3,580
Managed funds	15,994	420	62
Total performance fee income	<u>33,686</u>	<u>17,773</u>	<u>18,735</u>
Total fee income	<u>\$ 145,162</u>	<u>\$ 114,193</u>	<u>\$ 89,896</u>

The table above shows total fee income earned through third-party capital management, as well as various joint ventures, managed funds and certain structured retrocession agreements to which we are a party. Performance fees are based on the performance of the individual vehicles or products, and may be zero or negative in a particular period if, for example, large losses occur, which can potentially result in no performance fees or the reversal of previously accrued performance fees. Joint ventures include DaVinciRe, Top Layer Re, Vermeer and certain entities investing in Langhorne Holdings LLC. Managed funds include Upsilon Fund and Medici. Structured reinsurance products and other includes Fibonacci Re, as well as certain other vehicles and reinsurance contracts which transfer risk to capital. The fees earned through third-party capital management are principally recorded through redeemable noncontrolling interest, or as a reduction to operating expenses and acquisition expenses, as applicable.

In 2020, total fee income earned through third-party capital management, various joint ventures, managed funds and certain structured retrocession agreements to which we are a party increased \$31.0 million, to \$145.2 million, compared to \$114.2 million in 2019, driven by an increase in performance fee income due to favorable development on prior accident years, which benefited certain of the Company's managed funds, and an increase in management fee income due to an increase in the dollar value of third-party capital being managed by the Company. Of the \$145.2 million in total fee income earned in 2020 through third-party capital management, various joint ventures, managed funds and certain structured retrocession agreements to which we are a party, \$57.3 million was recorded through redeemable noncontrolling interest and \$87.8 million was recorded through underwriting income as a reduction to operating expenses and acquisition expenses (2019 - \$54.0 million and \$60.2 million, respectively).

In 2019, total fee income earned through third-party capital management increased \$24.3 million, to \$114.2 million, compared to \$89.9 million in 2018, primarily driven by an increase in the dollar value of capital being managed combined with improved underlying performance.

In addition to the total fee income earned through third-party capital management, joint ventures, managed funds and certain structured retrocession agreements to which we are a party that are recorded through underwriting income, as detailed above, we also earn other fee income on certain other underwriting-related activities. These fees, in the aggregate, are recorded as a reduction to operating expenses or acquisition expenses, as applicable. The total fees, including the total fee income detailed in the table above plus other fee income we earn on certain other underwriting activities, earned by us in 2020 that were recorded as a reduction to operating expenses or acquisition expenses were \$118.7 million and \$28.1 million, respectively, resulting in a reduction to the combined ratio of 3.7% (2019 - \$92.6 million, \$15.3 million and 3.2%, respectively; 2018 - \$81.6 million, \$15.0 million and 4.9%, respectively).

Net Investment Income

<u>Year ended December 31,</u> (in thousands)	<u>2020</u>	<u>2019</u>	<u>2018</u>
Fixed maturity investments	\$ 278,215	\$ 318,503	\$ 211,973
Short term investments	20,799	56,264	33,571
Equity investments trading	6,404	4,808	4,474
Other investments			
Catastrophe bonds	54,784	46,154	31,051
Other	9,417	8,447	—
Cash and cash equivalents	2,974	7,676	3,810
	<u>372,593</u>	<u>441,852</u>	<u>284,879</u>
Investment expenses	<u>(18,555)</u>	<u>(17,645)</u>	<u>(14,914)</u>
Net investment income	<u>\$ 354,038</u>	<u>\$ 424,207</u>	<u>\$ 269,965</u>

Net investment income was \$354.0 million in 2020, compared to \$424.2 million in 2019, a decrease of \$70.2 million. Impacting our net investment income for 2020 was lower returns in our fixed maturity and short term investments, primarily as a result of lower yields on these investments following the decline in interest rates in early 2020, partially offset by higher returns on our catastrophe bonds due to growth in the portfolio.

Net investment income was \$424.2 million in 2019, compared to \$270.0 million in 2018, an increase of \$154.2 million. Impacting our net investment income for 2019 was improved performance in our fixed maturity and short term investment portfolios, combined with higher average invested assets, primarily resulting from the acquisition of TMR and additional capital raised in certain of our consolidated third-party capital vehicles.

Low interest rates in 2020 have lowered the yields at which assets have been invested relative to 2019 and longer-term historical levels. If the current lower yield environment should persist, we would expect that the yield on our portfolio would be adversely impacted by this low interest rate environment.

Net Realized and Unrealized Gains (Losses) on Investments

Year ended December 31, (in thousands)	2020	2019	2018
Gross realized gains	\$ 323,425	\$ 133,409	\$ 21,284
Gross realized losses	(46,524)	(43,149)	(91,098)
Net realized gains (losses) on fixed maturity investments	276,901	90,260	(69,814)
Net unrealized gains (losses) on fixed maturity investments trading	216,859	170,183	(57,310)
Net realized and unrealized gains (losses) on investments-related derivatives	68,608	58,891	(8,784)
Net realized gains on equity investments trading	3,532	31,062	27,739
Net unrealized gains (losses) on equity investments trading	262,064	64,087	(66,900)
Net realized and unrealized losses on other investments - catastrophe bonds	(7,031)	(9,392)	(8,668)
Net realized and unrealized (losses) gains on other investments - other	(297)	9,018	569
Net realized and unrealized gains (losses) on investments	<u>\$ 820,636</u>	<u>\$ 414,109</u>	<u>\$ (183,168)</u>

Our investment portfolio strategy seeks to preserve capital and provide us with a high level of liquidity. A large majority of our investments are invested in the fixed income markets and, therefore, our realized and unrealized holding gains and losses on investments are highly correlated to fluctuations in interest rates. Therefore, as interest rates decline, we will tend to have realized and unrealized gains from our investment portfolio, and as interest rates rise, we will tend to have realized and unrealized losses from our investment portfolio.

Net realized and unrealized gains on investments were \$820.6 million in 2020, compared to net realized and unrealized gains of \$414.1 million in 2019, an increase of \$406.5 million. Principally impacting our net realized and unrealized gains on investments in 2020 were:

- net realized and unrealized gains on our fixed maturity investments trading of \$493.8 million in 2020, compared to net realized and unrealized gains of \$260.4 million in 2019, an increase of \$233.3 million, principally higher as a result of realized gains generated on the sale of fixed maturity investments;
- net realized and unrealized gains on our investment-related derivatives of \$68.6 million in 2020, compared to gains of \$58.9 million in 2019, an increase of \$9.7 million, principally driven by higher net realized and unrealized gains on interest rate futures during 2020, compared to 2019; and
- net realized and unrealized gains on equity investments trading of \$265.6 million in 2020, compared to \$95.1 million in 2019, an improvement of \$170.4 million, principally driven by net unrealized gains of \$226.6 million on the Company's strategic investment in Trupanion Inc.

Net realized and unrealized gains on investments were \$414.1 million in 2019, compared to net realized and unrealized losses of \$183.2 million in 2018, an increase of \$597.3 million. Principally impacting our net realized and unrealized gains on investments in 2019 were:

- net realized and unrealized gains on our fixed maturity investments trading of \$260.4 million in 2019, compared to net realized and unrealized losses of \$127.1 million in 2018, an increase of \$387.5 million, principally driven by a downward shift in the interest rate yield curve during 2019, compared to an upward shift in the yield curve in 2018;
- net realized and unrealized gains on our investment-related derivatives of \$58.9 million in 2019, compared to losses of \$8.8 million in 2018, an increase of \$67.7 million, principally driven by higher derivative exposure during 2019, in addition to the interest rate activity noted above; and
- net realized and unrealized gains on equity investments trading of \$95.1 million in 2019, compared to net realized and unrealized losses of \$39.2 million in 2018, an improvement of \$134.3 million,

principally driven by higher returns on certain of our larger equity positions during 2019, compared to 2018.

Net Foreign Exchange Gains (Losses)

Year ended December 31, (in thousands)	2020	2019	2018
Total foreign exchange gains (losses)	\$ 27,773	\$ (2,938)	\$ (12,428)

Our functional currency is the U.S. dollar. We routinely write a portion of our business in currencies other than U.S. dollars and invest a portion of our cash and investment portfolio in those currencies. In addition, and in connection with the acquisition of TMR, we acquired certain entities with non-U.S. dollar functional currencies. As a result, we may experience foreign exchange gains and losses in our consolidated financial statements. We are primarily impacted by the foreign currency risk exposures associated with our underwriting operations, investment portfolio, and our operations with non-U.S. dollar functional currencies, and may, from time to time, enter into foreign currency forward and option contracts to minimize the effect of fluctuating foreign currencies on the value of non-U.S. dollar denominated assets and liabilities.

Refer to “Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk” for additional information related to our exposure to foreign currency risk and “Note 19. Derivative Instruments” in our “Notes to the Consolidated Financial Statements” for additional information related to foreign currency forward and option contracts we have entered into.

Equity in Earnings of Other Ventures

Year ended December 31, (in thousands)	2020	2019	2018
Top Layer Re	\$ 9,595	\$ 8,801	\$ 8,852
Tower Hill Companies	3,104	10,337	9,605
Other	4,495	4,086	17
Total equity in earnings of other ventures	\$ 17,194	\$ 23,224	\$ 18,474

Equity in earnings of other ventures primarily represents our pro-rata share of the net income from our investments in the Tower Hill Companies and Top Layer Re, and, except for Top Layer Re, is recorded one quarter in arrears. The carrying value of these investments on our consolidated balance sheets, individually or in the aggregate, may differ from the realized value we may ultimately attain, perhaps significantly so. The other category includes our equity investments in a select group of insurance and insurance-related companies.

Equity in earnings of other ventures was \$17.2 million in 2020, compared to \$23.2 million in 2019, a decrease of \$6.0 million, principally driven by reduced profitability in the Tower Hill Companies, partially offset by improved profitability in Top Layer Re and our equity investments within the other category.

Equity in earnings of other ventures was \$23.2 million in 2019, compared to \$18.5 million in 2018, an increase of \$4.8 million, principally driven by improved profitability of the Tower Hill Companies, as well as our equity investments within the other category.

Other Income

<u>Year ended December 31,</u> (in thousands)	<u>2020</u>	<u>2019</u>	<u>2018</u>
Assumed and ceded reinsurance contracts accounted for as derivatives and deposits	\$ (1,177)	\$ 4,473	\$ 4,807
Other	1,390	476	1,162
Total other income	<u>\$ 213</u>	<u>\$ 4,949</u>	<u>\$ 5,969</u>

In 2020, we generated other income of \$0.2 million, compared to \$4.9 million in 2019, a decrease of \$4.7 million, driven by losses on our assumed and ceded reinsurance contracts accounted for as derivatives and deposits.

In 2019, we generated other income of \$4.9 million, compared to \$6.0 million in 2018, a decrease of \$1.0 million, driven by our assumed and ceded reinsurance contracts accounted for as derivatives and deposits.

Corporate Expenses

<u>Year ended December 31,</u> (in thousands)	<u>2020</u>	<u>2019</u>	<u>2018</u>
Total corporate expenses	<u>\$ 96,970</u>	<u>\$ 94,122</u>	<u>\$ 33,983</u>

Corporate expenses include certain executive, director, legal and consulting expenses, costs for research and development, impairment charges related to goodwill and other intangible assets, and other miscellaneous costs, including those associated with operating as a publicly traded company, as well as costs incurred in connection with the acquisition of TMR. From time to time, we may revise the allocation of certain expenses between corporate and operating expenses to better reflect the characteristic of the underlying expense.

Corporate expenses increased \$2.8 million to \$97.0 million, in 2020, compared to \$94.1 million in 2019. Corporate expenses for 2020 included a loss of \$30.2 million on the sale of RenaissanceRe UK on August 18, 2020, including related transaction and other expenses, and \$8.5 million of certain expenses associated with senior management departures during the year. In comparison, corporate expenses in 2019 included \$49.7 million of corporate expenses associated with the acquisition of TMR.

Corporate expenses increased \$60.1 million to \$94.1 million, in 2019, compared to \$34.0 million in 2018. During 2019, we recorded \$49.7 million of corporate expenses associated with the acquisition of TMR, comprised of \$24.0 million of compensation-related costs, \$13.8 million of transaction-related costs and \$11.9 million of integration-related costs.

Interest Expense and Preferred Share Dividends

Year ended December 31, (in thousands)	2020	2019	2018
Interest Expense			
\$250.0 million 5.75% Senior Notes due 2020	\$ 2,954	\$ 14,375	\$ 14,375
\$300.0 million 3.700% Senior Notes due 2025	11,100	11,100	11,100
\$300.0 million 3.450% Senior Notes due 2027	10,350	10,350	10,350
\$400.0 million 3.600% Senior Notes due 2029	10,720	10,720	—
\$150.0 million 4.750% Senior Notes due 2025 (DaVinciRe)	7,125	7,125	7,125
Other	8,204	4,694	4,119
Total interest expense	50,453	58,364	47,069
Preferred Share Dividends			
\$125.0 million 6.08% Series C Preference Shares	1,767	7,600	7,600
\$275.0 million 5.375% Series E Preference Shares	14,781	14,781	14,781
\$250.0 million 5.750% Series F Preference Shares	14,375	14,375	7,707
Total preferred share dividends	30,923	36,756	30,088
Total interest expense and preferred share dividends	\$ 81,376	\$ 95,120	\$ 77,157

Interest expense decreased \$7.9 million to \$50.5 million in 2020, compared to \$58.4 million in 2019, primarily driven by the maturity of our 5.75% Senior Notes in March 2020.

Interest expense increased \$11.3 million to \$58.4 million in 2019, compared to \$47.1 million in 2018, primarily driven by additional interest expense due to the April 2019 issuance of \$400.0 million principal amount of 3.600% Senior Notes due 2029, resulting in nearly nine months of interest expense in 2019, compared to no interest on these notes in 2018.

Preferred share dividends decreased \$5.8 million to \$30.9 million in 2020, compared to \$36.8 million in 2019, primarily driven by the redemption in full of the \$125 million outstanding principal amount of 6.08% Series C Preference Shares in March, resulting in only three months of dividends compared to 12 months in the prior period.

Preferred share dividends increased \$6.7 million to \$36.8 million in 2019, compared to \$30.1 million in 2018, primarily driven by dividends on the \$250.0 million principal amount of 5.750% Series F Preference Shares issued in June 2018 resulting in twelve months of dividends in 2019 compared to six months of dividends on these preference shares in 2018.

Income Tax (Expense) Benefit

Year ended December 31, (in thousands)	2020	2019	2018
Income tax (expense) benefit	\$ (2,862)	\$ (17,215)	\$ 6,302

We are subject to income taxes in certain jurisdictions in which we operate; however, since the majority of our income is currently earned in Bermuda, which does not have a corporate income tax, the tax impact to our operations has historically been minimal.

In 2020, we recognized an income tax expense of \$2.9 million, compared to \$17.2 million in 2019. The reduction in income tax expense was principally driven by lower underwriting performance, partially offset by higher investment gains, primarily in our U.S.-based operations.

In 2019, we recognized an income tax expense of \$17.2 million compared to an income tax benefit of \$6.3 million in 2018. The income tax expense in 2019 was principally driven by investment gains in our U.S. operations and income in the taxable jurisdictions of the newly acquired TMR entities.

At December 31, 2020, our net deferred tax asset (after valuation allowance) totaled \$49.3 million. Our operations in Ireland, the U.K., Singapore and the U.S. operations of TMR have historically produced GAAP taxable losses and we currently do not believe it is more likely than not that we will be able to recover the predominant amount of our net deferred tax assets in these jurisdictions. Our valuation allowance totaled \$88.7 million and \$75.7 million at December 31, 2020 and 2019, respectively.

Our effective income tax rate, which we calculate as income tax (expense) benefit divided by income or loss before taxes, may fluctuate significantly from period to period depending on the geographic distribution of pre-tax income or loss in any given period between different jurisdictions with comparatively higher tax rates and those with comparatively lower tax rates. The geographic distribution of pre-tax income or loss can vary significantly between periods due to, but not limited to, the following factors: the business mix of net premiums written and earned; the size and nature of net claims and claim expenses incurred; the amount and geographic location of operating expenses, net investment income, net realized and unrealized gains (losses) on investments; outstanding debt and related interest expense; and the amount of specific adjustments to determine the income tax basis in each of our operating jurisdictions. In addition, a significant portion of our gross and net premiums are currently written and earned in Bermuda, which does not have a corporate income tax, including the majority of our catastrophe business, which can result in significant volatility to our pre-tax income or loss in any given period. We expect our consolidated effective tax rate to increase in the future, as our global operations outside of Bermuda expand, including in connection with the acquisition of TMR. In addition, it is possible we could be adversely affected by changes in tax laws, regulation, or enforcement, any of which could increase our effective tax rate more rapidly or steeply than we currently anticipate.

Generally, the preponderance of our revenue and pre-tax income or loss is generated by our domestic (i.e., Bermuda) operations, in the form of underwriting income or loss and net investment income or loss, rather than our foreign operations. However, the geographic distribution of pre-tax income or loss can vary significantly between periods for a variety of reasons, including the business mix of net premiums written and earned, the size and nature of net claims and claim expenses incurred, the amount and geographic location of operating expenses, net investment income and net realized and unrealized gains (losses) on investments and the amount of specific adjustments to determine the income tax basis in each of our operating jurisdictions. Pre-tax income for our domestic operations was higher compared to our foreign operations for the years ended December 31, 2020, 2019 and 2018 primarily as a result of the more volatile catastrophe business underwritten in our Bermuda operations during these periods incurring a comparatively lower level of catastrophe losses and thus generating higher levels of net underwriting income than our foreign operations, which underwrite primarily less volatile business with higher attritional net claims and claim expenses and as a result produce lower levels of net underwriting income in benign loss years.

Net Income Attributable to Redeemable Noncontrolling Interests

Year ended December 31, (in thousands)	2020	2019	2018
Net income attributable to redeemable noncontrolling interests	\$ (230,653)	\$ (201,469)	\$ (41,553)

Our net income attributable to redeemable noncontrolling interests was \$230.7 million in 2020, compared to \$201.5 million in 2019, a change of \$29.2 million. The increase was driven by improved performance from Medici and Vermeer, compared to 2019, partially offset by lower underlying performance in DaVinci which was negatively impacted by the 2020 Weather-Related Large Loss Events and the COVID-19 losses.

Our net income attributable to redeemable noncontrolling interests was \$201.5 million in 2019, compared to \$41.6 million in 2018, a change of \$159.9 million. The increase was primarily driven by the results of operations of Vermeer being included in net income attributable to redeemable noncontrolling interests in 2019, combined with DaVinciRe generating higher net income.

Refer to “Note 10. Noncontrolling Interests” in our “Notes to Consolidated Financial Statements” for additional information regarding our redeemable noncontrolling interests.

FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

Financial Condition

As a Bermuda-domiciled holding company, RenaissanceRe has limited operations of its own. Its assets consist primarily of investments in subsidiaries and cash and securities in amounts which fluctuate over time. We therefore rely on dividends and distributions (and other statutorily permissible payments) from our subsidiaries, investment income and fee income to meet our liquidity requirements, which primarily include making principal and interest payments on our debt and dividend payments to our preference and common shareholders.

The payment of dividends by our subsidiaries is, under certain circumstances, limited by the applicable laws and regulations in the various jurisdictions in which our subsidiaries operate, including Bermuda, the U.S., the U.K., Switzerland, Australia, Singapore and Ireland. In addition, insurance laws require our insurance subsidiaries to maintain certain measures of solvency and liquidity. We believe that each of our insurance subsidiaries and branches exceeded the minimum solvency, capital and surplus requirements in their applicable jurisdictions at December 31, 2020. Certain of our subsidiaries and branches are required to file FCRs, with their regulators, which provide details on solvency and financial performance. Where required, these FCRs will be posted on our website. The regulations governing our and our principal operating subsidiaries' ability to pay dividends and to maintain certain measures of solvency and liquidity and requirements to file FCRs are discussed in detail in "Part I, Item 1. Business—Regulation" and "Note 18. Statutory Requirements" in our "Notes to the Consolidated Financial Statements."

Liquidity and Cash Flows

Holding Company Liquidity

RenaissanceRe's principal uses of liquidity are: (1) common share related transactions including dividend payments to our common shareholders and common share repurchases, (2) preference share related transactions including dividend payments to our preference shareholders and preference share redemptions, (3) interest and principal payments on debt, (4) capital investments in our subsidiaries, (5) acquisition of new or existing companies or businesses, such as our acquisition of TMR and (6) certain corporate and operating expenses.

We attempt to structure our organization in a way that facilitates efficient capital movements between RenaissanceRe and our operating subsidiaries and to ensure that adequate liquidity is available when required, giving consideration to applicable laws and regulations, and the domiciliary location of sources of liquidity and related obligations.

In the aggregate, our principal operating subsidiaries have historically produced sufficient cash flows to meet their expected claims payments and operational expenses and to provide dividend payments to us. In addition, our subsidiaries maintain a concentration of investments in high quality liquid securities, which management believes will provide additional liquidity for extraordinary claims payments should the need arise. However, in some circumstances, RenaissanceRe may contribute capital to its subsidiaries. For example, during 2018 and 2017 we experienced significant losses from large catastrophe events, and as we would expect following events of this magnitude, it was necessary for RenaissanceRe to contribute capital to certain of our principal operating subsidiaries to ensure they were able to maintain levels of capital adequacy and liquidity in compliance with various laws and regulations, support rating agency capital requirements, pay valid claims quickly and be adequately capitalized to pursue business opportunities as they arise. During 2019, RenaissanceRe contributed capital to RenaissanceRe Specialty Holdings to fund the acquisition of TMR and made a capital contribution to Renaissance Reinsurance to increase its shareholders' equity, consistent with past practice following a significant acquisition and to support growth in premiums. In 2020, RenaissanceRe contributed capital to RREAG to support growth in premiums. In addition, from time to time we invest in new managed joint ventures or managed funds, increase our investments in certain of our managed joint ventures or managed funds and contribute cash to investment subsidiaries. In certain instances, we are required to make capital contributions to our subsidiaries, for example, Renaissance Reinsurance is obligated to make a mandatory capital contribution of up to \$50.0 million in the event that a loss reduces Top Layer Re's capital below a specified level.

Sources of Liquidity

Historically, cash receipts from operations, consisting primarily of premiums, investment income and fee income, have provided sufficient funds to pay the losses and operating expenses incurred by our subsidiaries and to fund dividends and distributions to RenaissanceRe. Other potential sources of liquidity include borrowings under our credit facilities and issuances of securities. For example, in June 2020, we raised \$1.1 billion of net proceeds in an underwritten public offering and concurrent private placement of our common shares.

The premiums received by our operating subsidiaries are generally received months or even years before losses are paid under the policies related to such premiums. Premiums and acquisition expenses generally are received within the first two years of inception of a contract, while operating expenses are generally paid within a year of being incurred. It generally takes much longer for net claims and claims expenses incurred to be reported and ultimately settled, requiring the establishment of reserves for claims and claim expenses and losses recoverable. Therefore, the amount of net claims paid in any one year is not necessarily related to the amount of net claims and claims expenses incurred in that year, as reported in the consolidated statement of operations.

While we expect that our liquidity needs will continue to be met by our cash receipts from operations, as a result of the combination of current market conditions, lower than usual investment yields, and the nature of our business where a large portion of the coverages we provide can produce losses of high severity and low frequency, future cash flows from operating activities cannot be accurately predicted and may fluctuate significantly between individual quarters and years. In addition, due to the magnitude and complexity of certain large loss events, meaningful uncertainty remains regarding losses from these events and our actual ultimate net losses from these events may vary materially from preliminary estimates, which would impact our cash flows from operations. Further, we expect historically significant industry losses related to the COVID-19 pandemic to emerge over time as the full impact of the pandemic and its effects on the global economy are realized, which may impact our cash flows from operations.

Our “shelf” registration statement on Form S-3 under the Securities Act allows for the public offering of various types of securities, including common shares, preference shares and debt securities, and thus provides a source of liquidity. Because we are a “well-known seasoned issuer” as defined by the rules promulgated under the Securities Act, we are also eligible to file additional automatically effective registration statements on Form S-3 in the future for the potential offering and sale of additional debt and equity securities.

Credit Facilities

In addition, we maintain credit facilities that provide liquidity and allow us to satisfy certain collateral requirements. The outstanding amounts drawn under each of our significant credit facilities are set forth below:

<u>At December 31, 2020</u> (in thousands)	<u>Issued or Drawn</u>
Revolving Credit Facility (1)	\$ —
Bilateral Letter of Credit Facilities	
Secured	407,407
Unsecured	448,193
Funds at Lloyd's Letter of Credit Facility	225,000
	<u>\$ 1,080,600</u>

(1) At December 31, 2020, no amounts were issued or drawn under this facility.

Refer to “Note 9. Debt and Credit Facilities” in our “Notes to the Consolidated Financial Statements” for additional information related to our significant debt and credit facilities.

Funds at Lloyd's

As a member of Lloyd's, the underwriting capacity, or stamp capacity, of Syndicate 1458 must be supported by providing a deposit, the FAL, in the form of cash, securities or letters of credit. At December 31, 2020, the FAL required to support the underwriting activities at Lloyd's through Syndicate 1458 was £696.2 million (2019 - £524.3 million). Actual FAL posted for Syndicate 1458 at December 31, 2020 by RenaissanceRe CCL was \$874.2 million (2019 - \$675.9 million), supported by a \$225.0 million letter of credit and a \$649.2 million deposit of cash and fixed maturity securities (2019 - \$290.0 million and \$385.9 million, respectively). On October 30, 2020, Renaissance Reinsurance amended the amended and restated letter of credit reimbursement agreement entered into on November 7, 2019 to reduce the size of the facility to \$225.0 million. Refer to "Note 9. Debt and Credit Facilities" in our "Notes to the Consolidated Financial Statements" for additional information related to this letter of credit facility.

Multi-Beneficiary Reinsurance Trusts, Multi-Beneficiary Reduced Collateral Reinsurance Trusts and Other Collateral Arrangements

Certain of our insurance subsidiaries use multi-beneficiary reinsurance trusts and multi-beneficiary reduced collateral reinsurance trusts to collateralize reinsurance liabilities. From time to time, we also use other types of collateral arrangements. Refer to "Note 18. Statutory Requirements" in our "Notes to the Consolidated Financial Statements" for additional information on our multi-beneficiary reinsurance trusts and multi-beneficiary reduced collateral reinsurance trusts.

Cash Flows

Year ended December 31, (in thousands)	2020	2019	2018
Net cash provided by operating activities	\$ 1,992,735	\$ 2,137,195	\$ 1,221,701
Net cash used in investing activities	(2,304,689)	(2,988,644)	(2,536,613)
Net cash provided by financing activities	665,214	1,120,117	1,066,340
Effect of exchange rate changes on foreign currency cash	4,485	2,478	(5,098)
Net increase (decrease) in cash and cash equivalents	357,745	271,146	(253,670)
Cash and cash equivalents, beginning of period	1,379,068	1,107,922	1,361,592
Cash and cash equivalents, end of period	\$ 1,736,813	\$ 1,379,068	\$ 1,107,922

2020

During 2020, our cash and cash equivalents increased by \$357.7 million, to \$1.7 billion at December 31, 2020, compared to \$1.4 billion at December 31, 2019.

Cash flows provided by operating activities. Cash flows provided by operating activities during 2020 were \$2.0 billion, compared to \$2.1 billion during 2019. Cash flows provided by operating activities during 2020 were primarily the result of certain adjustments to reconcile our net income of \$993.1 million to net cash provided by operating activities, including:

- an increase in reserve for claims and claim expenses of \$1.2 billion primarily, the result of claims and claim expenses associated with the 2020 Weather-Related Large Loss Events and losses related to the COVID-19 pandemic, partially offset by a reduction in net claims and claim expenses of \$155.2 million due to the sale of RenaissanceRe UK and favorable development on prior accident years net claim and claim expenses of \$183.8 million;
- an increase in reinsurance balances payable of \$662.3 million principally driven by the issuance of non-voting preference shares to investors in Upsilon RFO, which are accounted for as prospective reinsurance and included in reinsurance balances payable on our consolidated balance sheet. Refer to "Note 11. Variable Interest Entities" in our "Notes to the Consolidated Financial Statements" for additional information related to Upsilon RFO's non-voting preference shares;
- an increase in unearned premiums of \$232.9 million due to the growth in gross premiums written across both our Property and Casualty and Specialty segments; partially offset by

- net realized and unrealized gains on investments of \$820.6 million principally driven by net realized and unrealized gains on our fixed maturity investments portfolio, equity investments trading and investment-related derivatives;
- an increase in premiums receivable of \$293.6 million due to the timing of receipts and increase in our gross premiums written;
- an increase in reinsurance recoverable of \$138.4 million principally related to the increase in claims and claim expenses noted above;
- an increase of \$55.8 million in our prepaid reinsurance premiums due to the timing of payments and increase in ceded premiums written; and
- an increase in other operating cash flows of \$178.3 million primarily reflecting subscriptions received in advance of the issuance of Upsilon RFO's non-voting preference shares effective January 1, 2021, which were recorded in other liabilities at December 31, 2020. Refer to "Note 11. Variable Interest Entities" in our "Notes to the Consolidated Financial Statements" for additional information related to Upsilon RFO's non-voting preference shares;

Cash flows used in investing activities. During 2020, our cash flows used in investing activities were \$2.3 billion, principally reflecting net purchases of fixed maturity investments trading, short term investments and other investments of \$1.6 billion, \$581.5 million, and \$216.8 million, respectively. The net purchase of fixed maturity investments trading was primarily funded by cash flows provided by operating activities, as described above, and the issuance of RenaissanceRe common shares during the second quarter of 2020, whereas the net purchase of short term investments was primarily associated with capital received from investors in Upsilon RFO during 2020. The net purchase of other investments during 2020 was primarily driven by an increased allocation to catastrophe bonds. Partially offsetting these net outflows from investing activities were net proceeds of \$136.7 million from the sale of RenaissanceRe UK during the third quarter of 2020.

Cash flows provided by financing activities. Our cash flows provided by financing activities in 2020 were \$665.2 million, and were principally the result of:

- the issuance of 6,325,000 of our common shares in an underwritten public offering at a public offering price of \$166.00 per share, combined with an additional \$75.0 million raised through the issuance of 451,807 of our common shares at a price of \$166.00 per share to State Farm, one of our existing stockholders, in a private placement. The total net proceeds from the offerings were \$1.1 billion;
- net inflows of \$119.1 million related to net third-party redeemable noncontrolling interest share transactions in DaVinciRe, Medici and Vermeer; partially offset by
- the repayment in full at maturity of the aggregate principal amount of \$250.0 million, plus applicable accrued interest, of our 5.75% Senior Notes due 2020 of RenRe North America Holdings Inc. and RenaissanceRe Finance;
- the redemption of all 5 million of our outstanding Series C 6.08% Preference Shares on March 26, 2020 for \$125.0 million plus accrued and unpaid dividends thereon;
- the repurchase of 406 thousand of our common shares in open market transactions at an aggregate cost of \$62.6 million and an average price of \$154.36 per common share; and
- dividends paid on our common and preference shares of \$68.5 million and \$30.9 million, respectively.

2019

During 2019, our cash and cash equivalents increased by \$271.1 million, to \$1.4 billion at December 31, 2019, compared to \$1.1 billion at December 31, 2018.

Cash flows provided by operating activities. Cash flows provided by operating activities during 2019 were \$2.1 billion, compared to \$1.2 billion during 2018. Cash flows provided by operating activities during 2019 were primarily the result of certain adjustments to reconcile our net income of \$950.3 million to net cash provided by operating activities, including:

- an increase in reserve for claims and claim expenses of \$900.6 million as a result of claims and claims expenses incurred of \$3.2 billion during 2019 principally driven by current accident year losses, partially offset by claims payments of \$2.3 billion primarily associated with prior accident years losses;
- an increase in reinsurance balances payable of \$658.5 million principally driven by the issuance of non-voting preference shares to investors in Upsilon RFO, which are accounted for as prospective reinsurance and included in reinsurance balances payable on our consolidated balance sheet. Refer to “Note 11. Variable Interest Entities” in our “Notes to the Consolidated Financial Statements” for additional information related to Upsilon RFO’s non-voting preference shares;
- an increase in other operating cash flows of \$251.4 million primarily reflecting the movement in subscriptions received in advance of the issuance of Upsilon RFO’s non-voting preference shares effective January 1, 2020 and 2019, which were recorded in other liabilities at December 31, 2019 and 2018, respectively. Refer to “Note 11. Variable Interest Entities” in our “Notes to the Consolidated Financial Statements” for additional information related to Upsilon RFO’s non-voting preference shares;
- a net decrease in reinsurance recoverable of \$129.7 million primarily resulting from the collection of \$1.2 billion during 2019, partially offset by increases to reinsurance recoverable principally driven by increases in net claims and claim expenses associated with current accident year losses, combined with the continued execution of our gross-to-net strategy; partially offset by
- an increase in premiums receivable of \$425.0 million due to the increase in gross premiums written combined with the timing of receipts of those premiums; and
- net realized and unrealized gains on investments of \$414.1 million principally due to improved performances from our fixed maturity, public equity and investments-related derivative portfolios.

Cash flows used in investing activities. During 2019, our cash flows used in investing activities were \$3.0 billion, principally reflecting net purchases of short term investments, fixed maturity investments and other investments of \$1.9 billion, \$605.4 million and \$202.9 million, respectively. The net purchase of short term investments was funded in part by the capital received from investors in DaVinciRe, Medici, Upsilon RFO and Vermeer, and other net cash flows provided by operating activities. The net purchase of other investments during 2019, was primarily driven by an increased allocation to catastrophe bonds. In addition, we completed our acquisition of TMR on March 22, 2019, resulting in a net cash outflow of \$276.2 million, comprised of cash consideration paid by RenaissanceRe as acquisition consideration of \$813.6 million, net of cash acquired from TMR of \$537.4 million. Refer to “Note 3. Acquisition of Tokio Millennium Re” in our “Notes to the Consolidated Financial Statements” for additional information related to the acquisition of TMR.

Cash flows provided by financing activities. Our cash flows provided by financing activities in 2019 were \$1.1 billion, and were principally the result of:

- net inflows of \$827.1 million related to net third-party redeemable noncontrolling interest share transactions in DaVinciRe, Medici and Vermeer;
- net inflows of \$396.4 million associated with the April 2, 2019 issuance of \$400.0 million principal amount of our 3.600% Senior Notes due April 15, 2029; partially offset by
- dividends paid on our common and preference shares of \$59.4 million and \$36.8 million, respectively.

Capital Resources

We monitor our capital adequacy on a regular basis and seek to adjust our capital according to the needs of our business. In particular, we require capital sufficient to meet or exceed the capital adequacy ratios established by rating agencies for maintenance of appropriate financial strength ratings, the capital adequacy tests performed by regulatory authorities and the capital requirements under our credit facilities. We may seek to raise additional capital or return capital to our shareholders through common share repurchases and cash dividends (or a combination of such methods). In the normal course of our operations, we may from time to time evaluate additional share or debt issuances given prevailing market

conditions and capital management strategies, including for our operating subsidiaries, joint ventures and managed funds. In addition, as noted above, we enter into agreements with financial institutions to obtain letter of credit facilities for the benefit of our operating subsidiaries and certain of our joint ventures in their reinsurance and insurance business.

Our total shareholders' equity attributable to RenaissanceRe and debt was as follows:

At December 31, (in thousands)	2020	2019	Change
Common shareholders' equity	\$ 7,035,248	\$ 5,321,367	\$ 1,713,881
Preference shares	525,000	650,000	(125,000)
Total shareholders' equity attributable to RenaissanceRe	7,560,248	5,971,367	1,588,881
3.600% Senior Notes due 2029	392,391	391,475	916
3.450% Senior Notes due 2027	296,787	296,292	495
3.700% Senior Notes due 2025	298,428	298,057	371
5.750% Senior Notes due 2020 (1)	—	249,931	(249,931)
4.750% Senior Notes due 2025 (DaVinciRe) (2)	148,659	148,350	309
Total debt	1,136,265	1,384,105	(247,840)
Total shareholders' equity attributable to RenaissanceRe and debt	\$ 8,696,513	\$ 7,355,472	\$ 1,341,041

(1) On March 15, 2020, the Company repaid in full at maturity the aggregate principal amount of \$250.0 million, plus applicable accrued interest, of the 5.75% Senior Notes due 2020 of RenRe North America Holdings Inc. and RenaissanceRe Finance.

(2) RenaissanceRe owns a noncontrolling economic interest in its joint venture DaVinciRe. Because RenaissanceRe controls a majority of DaVinciRe's outstanding voting rights, the consolidated financial statements of DaVinciRe are included in the consolidated financial statements of RenaissanceRe. However, RenaissanceRe does not guarantee or provide credit support for DaVinciRe and RenaissanceRe's financial exposure to DaVinciRe is limited to its investment in DaVinciRe's shares and counterparty credit risk arising from reinsurance transactions.

During 2020, our total shareholders' equity attributable to RenaissanceRe and debt increased by \$1.3 billion, to \$8.7 billion.

Our shareholders' equity attributable to RenaissanceRe increased \$1.6 billion during 2020 principally as a result of:

- the sale of 6,325,000 common shares in an underwritten public offering and the concurrent sale of 451,807 common shares to State Farm, each at a price per share of \$166.00, for total aggregate net proceeds of \$1.1 billion;
- our comprehensive income attributable to RenaissanceRe of \$751.7 million; partially offset by
- the redemption of all 5 million of our outstanding Series C 6.08% Preference Shares for \$125.0 million plus accrued and unpaid dividends thereon;
- the repurchase of 406 thousand common shares in open market transactions at an aggregate cost of \$62.6 million and an average price of \$154.36 per common share; and
- \$68.5 million and \$30.9 million of dividends on our common and preference shares, respectively.

Our debt decreased \$247.8 million during the year ended December 31, 2020 principally as a result of the repayment in full at maturity on March 15, 2020 of our 5.75% Senior Notes due 2020 of RenRe North America Holdings Inc. and RenaissanceRe Finance Inc. for the aggregate principal amount of \$250.0 million, plus applicable accrued interest.

For additional information related to the terms of our debt and significant credit facilities, see "Note 9. Debt and Credit Facilities" in our "Notes to the Consolidated Financial Statements." See "Note 12. Shareholders' Equity" in our "Notes to the Consolidated Financial Statements" for additional information related to our common and preference shares.

Reserve for Claims and Claim Expenses

We believe the most significant accounting judgment made by management is our estimate of claims and claim expense reserves. Claims and claim expense reserves represent estimates, including actuarial and statistical projections at a given point in time, of the ultimate settlement and administration costs for unpaid claims and claim expenses arising from the insurance and reinsurance contracts we sell. Our actual net claims and claim expenses paid will differ, perhaps materially, from the estimates reflected in our financial statements, which may adversely impact our financial condition, liquidity and capital resources.

Refer to “Note 8. Reserve for Claims and Claim Expenses” in our “Notes to the Consolidated Financial Statements” for more information on the risks we insure and reinsure, the reserving techniques, assumptions and processes we follow to estimate our claims and claim expense reserves, prior year development of the reserve for claims and claim expenses, analysis of our incurred and paid claims development and claims duration information for each of our Property and Casualty and Specialty segments. In addition, refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Critical Accounting Estimates—Claims and Claim Expense Reserves” for more information on the reserving techniques, assumptions and processes we follow to estimate our claims and claim expense reserves, our current estimates versus our initial estimates of our claims reserves, and sensitivity analysis for each of our Property and Casualty and Specialty segments.

Investments

The table below shows our invested assets:

At December 31, (in thousands, except percentages)	2020		2019		Change
U.S. treasuries	\$ 4,960,409	24.1 %	\$ 4,467,345	25.7 %	\$ 493,064
Agencies	368,032	1.8 %	343,031	1.9 %	25,001
Non-U.S. government	491,531	2.4 %	497,392	2.9 %	(5,861)
Non-U.S. government-backed corporate	338,014	1.6 %	321,356	1.9 %	16,658
Corporate	4,261,025	20.7 %	3,075,660	17.7 %	1,185,365
Agency mortgage-backed	1,113,792	5.4 %	1,148,499	6.6 %	(34,707)
Non-agency mortgage-backed	291,444	1.4 %	294,604	1.7 %	(3,160)
Commercial mortgage-backed	791,272	3.8 %	468,698	2.7 %	322,574
Asset-backed	890,984	4.3 %	555,070	3.2 %	335,914
Total fixed maturity investments, at fair value	13,506,503	65.5 %	11,171,655	64.3 %	2,334,848
Short term investments, at fair value	4,993,735	24.3 %	4,566,277	26.3 %	427,458
Equity investments trading, at fair value	702,617	3.4 %	436,931	2.5 %	265,686
Other investments, at fair value	1,256,948	6.2 %	1,087,377	6.3 %	169,571
Total managed investment portfolio	20,459,803	99.4 %	17,262,240	99.4 %	3,197,563
Investments in other ventures, under equity method	98,373	0.6 %	106,549	0.6 %	(8,176)
Total investments	<u>\$ 20,558,176</u>	<u>100.0 %</u>	<u>\$ 17,368,789</u>	<u>100.0 %</u>	<u>\$ 3,189,387</u>

Our investment guidelines stress preservation of capital, market liquidity, and diversification of risk. Notwithstanding the foregoing, our investments are subject to market-wide risks and fluctuations, as well as to risks inherent in particular securities. In addition to the information presented above and below, refer to "Note 5. Investments" and "Note 6. Fair Value Measurements" in our "Notes to the Consolidated Financial Statements" for additional information regarding our investments and the fair value measurement of our investments, respectively.

As the reinsurance coverages we sell include substantial protection for damages resulting from natural and man-made catastrophes, as well as for potentially large casualty and specialty exposures, we expect from time to time to become liable for substantial claim payments on short notice. Accordingly, our investment portfolio as a whole is structured to seek to preserve capital and provide a high level of liquidity, which means that the large majority of our investment portfolio consists of highly rated fixed income securities, including U.S. treasuries, agencies, highly rated sovereign and supranational securities, high-grade corporate securities and mortgage-backed and asset-backed securities. We also have an allocation to publicly traded equities reflected on our consolidated balance sheet as equity investments trading and an allocation to other investments (including catastrophe bonds, private equity investments, senior secured bank loan funds and hedge funds).

The following table summarizes the composition of our investment portfolio, including the amortized cost and fair value of our investment portfolio and the ratings as assigned by S&P and/or other rating agencies when S&P ratings were not available, and the respective effective yield.

December 31, 2020 (in thousands, except percentages)	Amortized Cost	Fair Value	% of Total Investment Portfolio	Weighted Average Yield to Maturity	Credit Rating (1)					
					AAA	AA	A	BBB	Non-Investment Grade	Not Rated
Short term investments	\$ 4,993,735	\$ 4,993,735	24.3 %	0.1 %	\$ 4,899,675	\$ 88,039	\$ 2,028	\$ 2,085	\$ 1,875	\$ 33
		100.0 %			98.2 %	1.8 %	— %	— %	— %	— %
Fixed maturity investments										
U.S. treasuries	4,867,681	4,960,409	24.1 %	0.4 %	—	4,960,409	—	—	—	—
Agencies	365,387	368,032	1.8 %	0.9 %	—	368,032	—	—	—	—
Non-U.S. government	485,972	491,531	2.4 %	0.5 %	341,713	121,483	15,085	11,041	1,870	339
Non-U.S. government-backed corporate	333,996	338,014	1.6 %	1.0 %	121,529	197,471	6,246	7,796	4,972	—
Corporate	4,069,396	4,261,025	20.7 %	2.2 %	56,842	183,852	1,435,032	1,449,635	1,100,009	35,655
Agency mortgage-backed	1,095,525	1,113,792	5.4 %	1.0 %	—	1,113,792	—	—	—	—
Non-agency securities - Alt A	231,633	235,085	1.1 %	3.2 %	57,913	5,186	466	6,365	126,662	38,493
Non-agency securities - Prime	55,309	56,359	0.3 %	2.0 %	24,085	2,372	2,212	1,079	15,054	11,557
Commercial mortgage-backed	762,899	791,272	3.8 %	1.5 %	626,768	131,659	4,778	23,328	2,443	2,296
Asset-backed	887,237	890,984	4.3 %	1.8 %	686,297	126,366	21,644	39,437	6,892	10,348
Total fixed maturity investments	13,155,035	13,506,503	65.5 %	1.2 %	1,915,147	7,210,622	1,485,463	1,538,681	1,257,902	98,688
		100.0 %			14.2 %	53.4 %	11.0 %	11.4 %	9.3 %	0.7 %
Equity investments trading		702,617	3.4 %		—	—	—	—	—	702,617
		100.0 %			— %	— %	— %	— %	— %	100.0 %
Other investments										
Catastrophe bonds		881,290	4.3 %		—	—	—	—	881,290	—
Private equity investments		345,501	1.7 %		—	—	—	—	—	345,501
Senior secured bank loan funds		19,604	0.1 %		—	—	—	—	—	19,604
Hedge funds		10,553	0.1 %		—	—	—	—	—	10,553
Total other investments		1,256,948	6.2 %		—	—	—	—	881,290	375,658
		100.0 %			— %	— %	— %	— %	70.1 %	29.9 %
Investments in other ventures		98,373	0.6 %		—	—	—	—	—	98,373
		100.0 %			— %	— %	— %	— %	— %	100.0 %
Total investment portfolio		\$ 20,558,176	100.0 %		\$ 6,814,822	\$ 7,298,661	\$ 1,487,491	\$ 1,540,766	\$ 2,141,067	\$ 1,275,369
		100.0 %			33.2 %	35.5 %	7.2 %	7.5 %	10.4 %	6.2 %

(1) The credit ratings included in this table are those assigned by S&P. When ratings provided by S&P were not available, ratings from other nationally recognized rating agencies were used. We have grouped short term investments with an A-1+ and A-1 short term issue credit rating as AAA, short term investments with an A-2 short term issue credit rating as AA and short term investments with an A-3 short term issue credit rating as A.

Fixed Maturity Investments and Short Term Investments

At December 31, 2020, our fixed maturity investments and short term investment portfolio had a dollar-weighted average credit quality rating of AAA (2019 – AA) and a weighted average effective yield of 0.9% (2019 – 2.1%). At December 31, 2020, our non-investment grade and not rated fixed maturity investments totaled \$1.4 billion or 10.0% of our fixed maturity investments (2019 - \$828.2 million or 7.4%, respectively).

In addition, within our other investments category we have funds that invest in non-investment grade and not rated fixed income securities and non-investment grade cat-linked securities. At December 31, 2020, the funds that invest in non-investment grade and not rated fixed income securities and non-investment grade cat-linked securities totaled \$911.4 million (2019 – \$816.3 million).

At December 31, 2020, we had \$5.0 billion of short term investments (2019 – \$4.6 billion). Short term investments are managed as part of our investment portfolio and have a maturity of one year or less when purchased. Short term investments are carried at fair value. The increase in our allocation to short term investments at December 31, 2020, compared to December 31, 2019, is principally driven by the additional invested assets in certain of our managed joint ventures and managed funds that limit investment allocation to shorter term securities.

The duration of our fixed maturity investments and short term investments at December 31, 2020 was 2.9 years (2019 - 2.9 years). From time to time, we may reevaluate the duration of our portfolio in light of the duration of our liabilities and market conditions.

The value of our fixed maturity investments will fluctuate with changes in the interest rate environment and when changes occur in economic conditions or the investment markets. Additionally, our differing asset classes expose us to other risks which could cause a reduction in the value of our investments. Examples of some of these risks include:

- Changes in the overall interest rate environment can expose us to “prepayment risk” on our mortgage-backed investments. When interest rates decline, consumers will generally make prepayments on their mortgages and, as a result, our investments in mortgage-backed securities will be repaid to us more quickly than we might have originally anticipated. When we receive these prepayments, our opportunities to reinvest these proceeds back into the investment markets will likely be at reduced interest rates. Conversely, when interest rates increase, consumers will generally make fewer prepayments on their mortgages and, as a result, our investments in mortgage-backed securities will be repaid to us less quickly than we might have originally anticipated. This will increase the duration of our portfolio, which is disadvantageous to us in a rising interest rate environment.
- Our investments in mortgage-backed securities are also subject to default risk. This risk is due in part to defaults on the underlying securitized mortgages, which would decrease the fair value of the investment and be disadvantageous to us. Similar risks apply to other asset-backed securities in which we may invest from time to time.
- Our investments in debt securities of other corporations are exposed to losses from insolvencies of these corporations, and our investment portfolio can also deteriorate based on reduced credit quality of these corporations. We are also exposed to the impact of widening credit spreads even if specific securities are not downgraded.
- Our investments in asset-backed securities are subject to prepayment risks, as noted above, and to the structural risks of these securities. The structural risks primarily emanate from the priority of each security in the issuer’s overall capital structure. We are also exposed to the impact of widening credit spreads.
- Within our other investments category, we have funds that invest in non-investment grade fixed income securities as well as securities denominated in foreign currencies. These investments expose us to losses from insolvencies and other credit-related issues and also to widening of credit spreads. We are also exposed to fluctuations in foreign exchange rates that may result in realized losses to us if our exposures are not hedged or if our hedging strategies are not effective.

Equity Investments Trading

The following table summarizes the fair value of equity investments trading:

At December 31, (in thousands)	2020	2019	Change
Financials	\$ 452,765	\$ 248,189	\$ 204,576
Communications and technology	119,592	79,206	40,386
Consumer	44,477	35,987	8,490
Industrial, utilities and energy	43,380	38,583	4,797
Healthcare	35,140	29,510	5,630
Basic materials	7,263	5,456	1,807
Total equity investments trading	<u>\$ 702,617</u>	<u>\$ 436,931</u>	<u>\$ 265,686</u>

We have a diversified public equity securities mandate with a third-party investment manager which currently comprises a portion of our investments included in equity investments trading. In addition, we can also strategically invest in certain more concentrated public equity positions internally, primarily through our ventures unit. It is possible our equity allocation will increase in the future, and it could, from time to time, have a material effect on our financial results for the reasonably foreseeable future.

The Company's equity investments trading includes the Company's strategic investment portfolio, which is subject to a variety of risks including: company performance, the availability of strategic investment opportunities, and macro-economic, industry, and systemic risks of the equity markets overall. Consequently, the carrying value of the Company's investment portfolio will vary over time as the value or size of the Company's portfolio of strategic investments in marketable equity securities fluctuates.

Other Investments

The table below shows our portfolio of other investments:

At December 31, (in thousands)	2020	2019	Change
Catastrophe bonds	\$ 881,290	\$ 781,641	\$ 99,649
Private equity investments	345,501	271,047	74,454
Senior secured bank loan funds	19,604	22,598	(2,994)
Hedge funds	10,553	12,091	(1,538)
Total other investments	<u>\$ 1,256,948</u>	<u>\$ 1,087,377</u>	<u>\$ 169,571</u>

We account for our other investments at fair value in accordance with FASB ASC Topic *Financial Instruments*. The fair value of certain of our fund investments, which principally include private equity funds, senior secured bank loan funds and hedge funds, is recorded on our consolidated balance sheet in other investments, and is generally established on the basis of the net valuation criteria established by the managers of such investments, if applicable. The net valuation criteria established by the managers of such investments is established in accordance with the governing documents of such investments. Many of our fund investments are subject to restrictions on redemptions and sales which are determined by the governing documents and limit our ability to liquidate these investments in the short term.

Some of our fund managers and fund administrators are unable to provide final fund valuations as of our current reporting date. We typically experience a reporting lag to receive a final net asset value report of one month for our hedge funds and senior secured bank loan funds and three months for private equity funds, although we have occasionally experienced delays of up to six months at year end, as the private equity funds typically complete their year-end audits before releasing their final net asset value statements.

In circumstances where there is a reporting lag between the current period end reporting date and the reporting date of the latest fund valuation, we estimate the fair value of these funds by starting with the prior month or quarter-end fund valuations, adjusting these valuations for actual capital calls, redemptions or

distributions, and the impact of changes in foreign currency exchange rates, and then estimating the return for the current period. In circumstances in which we estimate the return for the current period, all information available to us is utilized. This principally includes using preliminary estimates reported to us by our fund managers, estimating returns based on the performance of broad market indices, or other valuation methods, where necessary. Actual final fund valuations may differ, perhaps materially so, from our estimates and these differences are recorded in our consolidated statement of operations in the period in which they are reported to us, as a change in estimate. Included in net realized and unrealized gains on investments for 2020 is a loss of \$2.4 million (2019 - loss of \$5.5 million) representing the change in estimate during the period related to the difference between our estimated fair value due to the lag in reporting, as discussed above, and the actual amount as reported in the final net asset values provided by our fund managers.

Our estimate of the fair value of catastrophe bonds is based on quoted market prices, or when such prices are not available, by reference to broker or underwriter bid indications. Refer to "Note 6. Fair Value Measurements" in our "Notes to the Consolidated Financial Statements" for additional information regarding the fair value measurement of our investments.

We have committed capital to private equity investments, other investments and investments in other ventures of \$1.8 billion, of which \$809.0 million has been contributed at December 31, 2020. Our remaining commitments to these investments at December 31, 2020 totaled \$1.0 billion. In the future, we may enter into additional commitments in respect of private equity investments or individual portfolio company investment opportunities.

Investments in Other Ventures, under Equity Method

The table below shows our investments in other ventures, under equity method:

At December 31, (in thousands, except percentages)	2020			2019		
	Investment	Ownership %	Carrying Value	Investment	Ownership %	Carrying Value
Tower Hill Companies	\$ 64,750	2.0% - 25.0%	\$ 30,470	\$ 64,750	2.0% - 25.0%	\$ 36,779
Top Layer Re	65,375	50.0 %	26,958	65,375	50.0 %	35,363
Other	42,652	25.0 %	40,945	38,964	26.6 %	34,407
Total investments in other ventures, under equity method	<u>\$ 172,777</u>		<u>\$ 98,373</u>	<u>\$ 169,089</u>		<u>\$ 106,549</u>

Except for Top Layer Re, the equity in earnings of the Tower Hill Companies and investments in other ventures are reported one quarter in arrears. The carrying value of our investments in other ventures, under equity method, individually or in the aggregate may, and likely will, differ from the realized value we may ultimately attain, perhaps significantly so.

Ratings

Financial strength ratings are important to the competitive position of reinsurance and insurance companies. We have received high long-term issuer credit and financial strength ratings from A.M. Best, S&P, Moody's and Fitch, as applicable. These ratings represent independent opinions of an insurer's financial strength, operating performance and ability to meet policyholder obligations, and are not an evaluation directed toward the protection of investors or a recommendation to buy, sell or hold any of our securities. Rating organizations continually review the financial positions of our principal operating subsidiaries and joint ventures and ratings may be revised or revoked by the agencies which issue them.

The ratings of our principal operating subsidiaries and joint ventures and the ERM ratings of RenaissanceRe as of February 1, 2021 are presented below.

	A.M. Best (1)	S&P (2)	Moody's (3)	Fitch (4)
Renaissance Reinsurance Ltd.	A+	A+	A1	A+
DaVinci Reinsurance Ltd.	A	A+	A3	—
Renaissance Reinsurance of Europe Unlimited Company	A+	A+	—	—
Renaissance Reinsurance U.S. Inc.	A+	A+	—	—
RenaissanceRe Europe AG	A+	A+	—	—
RenaissanceRe Specialty U.S.	A+	A+	—	—
Top Layer Reinsurance Ltd.	A+	AA	—	—
Vermeer Reinsurance Ltd.	A	—	—	—
RenaissanceRe Syndicate 1458	—	—	—	—
Lloyd's Overall Market Rating	A	A+	—	AA-
RenaissanceRe	Very Strong	Very Strong	—	—

(1) The A.M. Best ratings for our principal operating subsidiaries and joint ventures represent the insurer's financial strength rating. The Lloyd's Overall Market Rating represents RenaissanceRe Syndicate 1458's financial strength rating. The A.M. Best rating for RenaissanceRe represents its ERM score.

(2) The S&P ratings for our principal operating subsidiaries and joint ventures represent the insurer's financial strength rating and the issuer's long-term issuer credit rating. The Lloyd's Overall Market Rating represents RenaissanceRe Syndicate 1458's financial strength rating. The S&P rating for RenaissanceRe represents the rating on its ERM practices.

(3) The Moody's ratings represent the insurer's financial strength rating.

(4) The Fitch rating for Renaissance Reinsurance represents the insurer's financial strength rating. The Lloyd's Overall Market Rating represents Syndicate 1458's financial strength rating.

A.M. Best

The outlook for all of our A.M. Best ratings is stable. "A+" is the second highest designation of A.M. Best's rating levels. "A+" rated insurance companies are defined as "Superior" companies and are considered by A.M. Best to have a very strong ability to meet their obligations to policyholders. "A" is the third highest designation assigned by A.M. Best, representing A.M. Best's opinion that the insurer has an "Excellent" ability to meet its ongoing obligations to policyholders.

S&P

The outlook for all of our S&P ratings is stable. The "A" range ("A+," "A," "A-"), which is the third highest rating assigned by S&P, indicates that S&P believes the insurers have strong capacity to meet their respective financial commitments but they are somewhat more susceptible to adverse effects or changes in circumstances and economic conditions than insurers rated higher.

Moody's

The outlook for all of our Moody's ratings is stable. Moody's Insurance Financial Strength Ratings represent its opinions of the ability of insurance companies to pay punctually policyholder claims and obligations and senior unsecured debt instruments. Moody's believes that insurance companies rated "A1" and "A3" offer good financial security.

Fitch

The outlook for all of our Fitch ratings is stable. Fitch believes that insurance companies rated "A+" have "Strong" capacity to meet policyholders and contract obligations on a timely basis with a low expectation of

ceased or interrupted payments. Insurers rated “AA-“ by Fitch are believed to have a very low expectation of ceased or interrupted payments and very strong capital to meet policyholder obligations.

Lloyd's Overall Market Rating

A.M. Best, S&P and Fitch have each assigned a financial strength rating to the Lloyd's overall market. The financial risks to policy holders of syndicates within the Lloyd's market are partially mutualized through the Lloyd's Central Fund, to which all underwriting members contribute. Because of the presence of the Lloyd's Central Fund, and the current legal and regulatory structure of the Lloyd's market, financial strength ratings on individual syndicates would not be particularly meaningful and in any event would not be lower than the financial strength rating of the Lloyd's overall market.

EFFECTS OF INFLATION

It is possible that the risk of general economic inflation has increased which could, among other things, cause claims and claim expenses to increase and also impact the performance of our investment portfolio. This risk may be exacerbated by the steps taken by governments throughout the world in responding to the COVID-19 pandemic. The actual effects of this potential increase in inflation on our results cannot be accurately known until, among other items, claims are ultimately settled. The onset, duration and severity of an inflationary period cannot be estimated with precision. We consider the anticipated effects of inflation on us in our catastrophe loss models. Our estimates of the potential effects of inflation are also considered in pricing and in estimating reserves for unpaid claims and claim expenses. The potential exists, after a catastrophe loss, for the development of inflationary pressures in a local economy.

OFF-BALANCE SHEET AND SPECIAL PURPOSE ENTITY ARRANGEMENTS

At December 31, 2020, we had not entered into any off-balance sheet arrangements, as defined in Item 303(a)(4) of Regulation S-K.

CONTRACTUAL OBLIGATIONS

In the normal course of business, we are party to a variety of contractual obligations and these are considered by us when assessing our liquidity requirements. In certain circumstances, our contractual obligations may be accelerated due to defaults under the agreements governing those obligations (including pursuant to cross-default provisions in such agreements) or in connection with certain changes in control of the Company, for example. In addition, in certain circumstances, in the event of a default these obligations may bear an increased interest rate or be subject to penalties.

The table below shows our contractual obligations:

<u>At December 31, 2020</u> (in thousands)	<u>Total</u>	<u>Less Than 1 Year</u>	<u>1-3 Years</u>	<u>3-5 Years</u>	<u>More Than 5 Years</u>
Long term debt obligations (1)					
3.600% Senior Notes due 2029	\$ 519,347	\$ 14,400	\$ 28,800	\$ 28,800	\$ 447,347
3.450% Senior Notes due 2027	367,265	10,350	20,700	20,700	315,515
3.700% Senior Notes due 2025	347,164	11,100	22,200	313,864	—
4.750% Senior Notes due 2025 (DaVinciRe)	180,866	7,125	14,250	159,491	—
Total long term debt obligations	<u>1,414,642</u>	<u>42,975</u>	<u>85,950</u>	<u>522,855</u>	<u>762,862</u>
Private equity and investment commitments (2)	1,035,816	1,035,816	—	—	—
Operating lease obligations	34,354	8,250	11,486	5,851	8,767
Capital lease obligations	20,773	2,661	5,322	5,322	7,468
Payable for investments purchased	1,132,538	1,132,538	—	—	—
Reserve for claims and claim expenses (3)	10,381,138	2,906,719	3,529,587	1,660,983	2,283,849
Total contractual obligations	<u>\$ 14,019,261</u>	<u>\$ 5,128,959</u>	<u>\$ 3,632,345</u>	<u>\$ 2,195,011</u>	<u>\$ 3,062,946</u>

(1) Includes contractual interest payments.

(2) The private equity and investment commitments do not have a defined contractual commitment date and we have therefore included them in the less than one year category.

(3) Because of the nature of the coverages we provide, the amount and timing of the cash flows associated with our policy liabilities will fluctuate, perhaps significantly, and therefore are highly uncertain. We have based our estimates of future claim payments on available relevant sources of loss and allocated loss adjustment expense development data and benchmark industry payment patterns. These benchmarks are revised periodically as new trends emerge. We believe that it is likely that this benchmark data will not be predictive of our future claim payments and that material fluctuations can occur due to the nature of the losses which we insure and the coverages which we provide.

CURRENT OUTLOOK

General Economic Conditions and the COVID-19 Pandemic

At the recent January 1 renewals, we were able to grow with existing and new customers across both of our segments and all of our platforms. We fully deployed the \$1.1 billion of capital raised in our June 2020 equity offerings into our underwriting portfolio. We also raised and deployed significant additional capital within our joint venture and managed fund businesses. As we have grown, we have broadened our access to risk, writing more lines of business on more platforms. We have diversified our sources of capital through various owned and managed balance sheets as well as equity, debt and insurance-linked securities markets. This has afforded us significant flexibility to react when the world changes.

The COVID-19 pandemic has had immense impacts on a global scale, including on the insurance and reinsurance industries where it has raised many new questions and challenges for us and our industry. While we believe that we can continue to execute on our strategic plan and compete for, and meet, the demand for the protection that we provide, it is difficult to predict all of the potential impacts of the COVID-19 pandemic on the markets in which we participate and our ability to effectively respond to these changing market dynamics.

In particular, we believe the stresses in the global economy will continue and that this may result in increased market volatility. Also, the ongoing period of low interest rates may affect our ability to derive investment income from our investments. The effects of this trend could be magnified for longer-tail business lines that are more inflation sensitive, particularly in our Casualty and Specialty segment, and in our other property class of business within our Property segment. Notwithstanding the many uncertainties

and challenges that lie ahead, we believe that our track record of responding to industry events, differentiated risk management and client service capabilities, and access to diverse sources of both capital and risk position us favorably in the current environment.

Reinsurance Market Trends and Developments

Even before the onset of the COVID-19 pandemic, rates were rising across most lines of business. This was due in part to back-to-back years of natural disaster losses between 2017 and 2020 from multiple hurricanes, typhoons, wildfires and earthquakes. The pandemic has accelerated an increasingly attractive market across property as well as casualty and specialty lines. We believe that these market conditions have created significant opportunities to source attractive risk in the lines of business that we write, and that we believe will result in superior returns for our shareholders. Our experience at the recent January 1 renewals was consistent with this trend – we observed rate increases and found many attractive opportunities to grow with both existing and new customers. We believe that the markets in which we participate will continue to harden in 2021, and we plan to continue to seek to take advantage of additional opportunities throughout the year.

Compared to prior years, we believe that the overall global supply of reinsurance capital was broadly flat. For the most part, the investment portfolios of our customers and competitors rebounded from losses earlier in the year, and losses to underwriting results were primarily limited to the erosion of earnings rather than any significant capital impairment. The market experienced additional new capital inflows with several start-ups targeting the retrocession and excess and surplus markets, as well as equity and debt raises which were mostly in support of existing players. Growth in traditional capital remained flat while alternative capital likely declined modestly year-on-year, largely driven by a reduction in the collateralized reinsurance market. The catastrophe bond market continues to grow, with record primary issuances in 2020. Concerns over trapped collateral, particularly associated with COVID-19 business interruption claims, were less pronounced than expected. However, there remains material uncertainty over the true extent of COVID-19 claims and the potential for material losses in the future.

Property. Heading into the January 1 renewals, we expected the retrocessional and U.S. property catastrophe markets to provide us with significant opportunities. While the retrocession and property catastrophe reinsurance markets evidenced some strengthening, they ultimately were not as strong as the market expected. We believe that this was a result of additional capital available for underwriting as a result of a disconnect between investment portfolios and the financial reality of the COVID-19 pandemic and the economic recession, as well as elevated supply from new capital and increasing amounts of released collateral. Despite this, rates were still up, and we found many opportunities to grow our portfolio on favorable terms, particularly in our other property line of business.

Casualty and Specialty. The January 1 renewal in our Casualty and Specialty segment exceeded our expectations, and we saw favorable opportunities in various classes of business across this segment. We anticipate that dislocation in several of these classes of business will continue to provide opportunities in 2021. We think that our prior work building strong relationships with key customers allowed us to gain superior access to desirable business.

See “Part I, Item 1A. Risk Factors,” for additional information on factors that could cause our actual results to differ materially from those in the forward-looking statements contained in this Form 10-K and other documents we file with the SEC.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The following risk management discussion and the estimated amounts generated from sensitivities presented are forward-looking statements of market risk assuming certain market conditions occur. Actual results in the future may differ materially from these estimated results due to, among other things, actual developments in the global financial markets and changes in the composition of our investment portfolio, derivatives and product offerings. The results of analysis used by us to assess and mitigate risk should not be considered projections of future events or losses. Refer to “Note On Forward-Looking Statements” for additional discussion regarding forward-looking statements included herein.

We are principally exposed to four types of market risk: interest rate risk; foreign currency risk; credit risk; and equity price risk. Our policies to address these risks in 2020 were not materially different than those used in 2019.

The ongoing and rapidly evolving nature of the COVID-19 pandemic could lead to a longer or more severe recession, which may increase the probability of credit losses in our investment portfolio. Volatility in global financial markets, together with low or negative interest rates, reduced liquidity and a slowdown in global economic conditions may adversely affect our investment portfolio. Additionally, we are exposed to counterparty credit risk, including with respect to reinsurance brokers, customers and retrocessionaires, which may materially increase to the extent the COVID-19 pandemic affects our ability to collect premiums receivable or reinsurance recoverable.

Our investment guidelines permit, subject to approval, investments in derivative instruments such as futures, options, foreign currency forward contracts and swap agreements, which may be used to assume risks or for hedging purposes. Refer to “Note 19. Derivative Instruments” in our “Notes to the Consolidated Financial Statements” for additional information related to derivatives we have entered into.

Interest Rate Risk

Interest rate risk is the price sensitivity of a security to changes in interest rates. Our investment portfolio includes fixed maturity investments and short term investments, whose fair values will fluctuate with changes in interest rates. Our liabilities are accrued at a static rate in accordance with GAAP. However, we consider our liabilities, namely our net claims and claims expenses, to have an economic exposure to inflation and interest rate risk. As a result, we are exposed to interest rate risk with respect to our overall net economic asset position and more generally from an accounting standpoint since the assets are carried at fair value, while liabilities are accrued at a static rate.

We may utilize derivative instruments via interest rate overlay strategies, for example, to manage or optimize our duration and treasury curve exposures. In addition, we attempt to maintain adequate liquidity in our fixed maturity investments portfolio to fund operations, pay reinsurance and insurance liabilities and claims and provide funding for unexpected events.

The following tables summarize the aggregate hypothetical increase (decrease) in fair value from an immediate parallel shift in the treasury yield curve, assuming credit spreads remain constant, reflecting the use of an immediate time horizon since this presents the worst-case scenario, in our fixed maturity investment and short term investments portfolio for the years indicated:

At December 31, 2020 (in thousands, except percentages)	Interest Rate Shift in Basis Points				
	-100	-50	Base	50	100
Fair value of fixed maturity and short term investments	\$ 19,023,812	\$ 18,760,360	\$ 18,500,238	\$ 18,243,095	\$ 17,987,680
Net increase (decrease) in fair value	\$ 523,574	\$ 260,122	\$ —	\$ (257,143)	\$ (512,558)
Percentage change in fair value	2.8 %	1.4 %	— %	(1.4)%	(2.8)%

At December 31, 2019 (in thousands, except percentages)	Interest Rate Shift in Basis Points				
	-100	-50	Base	50	100
Fair value of fixed maturity and short term investments	\$ 16,099,052	\$ 15,918,493	\$ 15,737,932	\$ 15,557,371	\$ 15,376,808
Net increase (decrease) in fair value	\$ 361,120	\$ 180,561	\$ —	\$ (180,561)	\$ (361,124)
Percentage change in fair value	2.3 %	1.1 %	— %	(1.1)%	(2.3)%

As noted above, we use derivative instruments, primarily interest rate futures and interest rate swaps, within our portfolio of fixed maturity investments to manage our exposure to interest rate risk, which can include increasing or decreasing our exposure to this risk. At December 31, 2020, we had \$2.0 billion of notional long positions and \$1.0 billion of notional short positions of primarily Eurodollar, and U.S. Treasury futures contracts (2019 - \$2.5 billion and \$1.0 billion, respectively). At December 31, 2020, we had \$Nil of notional interest rate swap positions paying a fixed rate and \$23.5 million receiving a fixed rate denominated in U.S. dollar swap contracts (2019 - \$27.9 million and \$25.5 million, respectively). Refer to "Note 19. Derivative Instruments" in our "Notes to the Consolidated Financial Statements" for additional information related to interest rate futures and swaps entered into by us.

At December 31, 2020, the aggregate hypothetical impact of an immediate upward parallel shift in the treasury yield curve of 100 basis points would be a decrease in the market value of our net position in interest rate futures of approximately \$8.6 million and a decrease in the market value of our net position in interest rate swaps of approximately \$1.9 million. Conversely, at December 31, 2020, the aggregate hypothetical impact of an immediate downward parallel shift in the treasury yield curve of 100 basis points would be an increase in the market value of our net position in interest rate futures of approximately \$0.5 million and an increase in the market value of our net position in interest rate swaps of approximately \$1.9 million. The foregoing reflects the use of an immediate time horizon, since this presents the worst-case scenario. Credit spreads are assumed to remain constant in these hypothetical examples.

Foreign Currency Risk

Our functional currency for consolidated reporting purposes is the U.S. dollar. We routinely write a portion of our business in currencies other than U.S. dollars and invest a portion of our cash and investment portfolio in those currencies. In addition, certain of our entities have non-U.S. dollar functional currencies. As a result, we may experience foreign exchange gains and losses in our consolidated financial statements. We are primarily impacted by the foreign currency risk exposures noted below, and may, from time to time, enter into foreign currency forward and option contracts to minimize the effect of fluctuating foreign currencies on the value of non-U.S. dollar denominated assets and liabilities. Refer to "Note 19. Derivative

Instruments” in our “Notes to the Consolidated Financial Statements” for additional information related to foreign currency forward and option contracts we have entered into.

Underwriting Operations

Our foreign currency policy with regard to our underwriting operations is generally to enter into foreign currency forward and option contracts for notional values that approximate the foreign currency liabilities, including claims and claim expense reserves and reinsurance balances payable, net of any cash, investments and receivables held in the respective foreign currency. Our use of foreign currency forward and option contracts is intended to minimize the effect of fluctuating foreign currencies on the value of non-U.S. dollar denominated assets and liabilities associated with our underwriting operations. We may determine not to match a portion of our projected underwriting related assets or liabilities with underlying foreign currency exposure with investments in the same currencies, which would increase our exposure to foreign currency fluctuations and potentially increase the impact and volatility of foreign exchange gains and losses on our results of operations.

Investment Portfolio

Our investment portfolio is exposed to currency fluctuations through our investments in non-U.S. dollar fixed maturity investments, short term investments and other investments. To economically hedge our exposure to currency fluctuations from these investments, we may enter into foreign currency forward contracts. In certain instances, we may assume foreign exchange risk as part of our investment strategy. Realized and unrealized foreign exchange gains or losses from the sale of our non-U.S. dollar fixed maturity investments trading and other investments, and foreign exchange gains or losses associated with our hedging of these non-U.S. dollar investments are recorded in net foreign exchange (losses) gains in our consolidated statements of operations. In the future, we may choose to increase our exposure to non-U.S. dollar investments.

The following tables summarize the principal currencies creating foreign exchange risk for us and our net foreign currency exposures and the impact of a hypothetical 10% change in our net foreign currency exposure, keeping all other variables constant, as of the dates indicated:

At December 31, 2020	AUD	CAD	EUR	GBP	JPY	NZD	Other	Total
(in thousands, except for percentages)								
Net assets (liabilities) denominated in foreign currencies	\$ 103,401	\$ 34,294	\$ (4,254)	\$ (322,565)	\$ (28,649)	\$ (62,892)	\$ (28,707)	\$ (309,372)
Net foreign currency derivatives notional amounts	(61,228)	(35,024)	(103,426)	312,790	86,314	66,649	36,217	302,292
Total net foreign currency exposure	\$ 42,173	\$ (730)	\$ (107,680)	\$ (9,775)	\$ 57,665	\$ 3,757	\$ 7,510	\$ (7,080)
Net foreign currency exposure as a percentage of total shareholders' equity attributable to RenaissanceRe	0.6 %	— %	(1.4)%	(0.1)%	0.8 %	— %	0.1 %	(0.1)%
Impact of a hypothetical 10% change in total net foreign currency exposure	\$ (4,217)	\$ 73	\$ 10,768	\$ 978	\$ (5,767)	\$ (376)	\$ (751)	\$ 708

At December 31, 2019	AUD	CAD	EUR	GBP	JPY	NZD	Other	Total
(in thousands, except for percentages)								
Net (liabilities) assets denominated in foreign currencies	\$ 109,915	\$ 63,473	\$ 217,652	\$ (12,856)	\$ (361,083)	\$ (74,042)	\$ (44,393)	\$ (101,334)
Net foreign currency derivatives notional amounts	(74,862)	(48,918)	(255,935)	135,296	412,590	64,332	5,369	237,872
Total net foreign currency exposure	\$ 35,053	\$ 14,555	\$ (38,283)	\$ 122,440	\$ 51,507	\$ (9,710)	\$ (39,024)	\$ 136,538
Net foreign currency exposure as a percentage of total shareholders' equity attributable to RenaissanceRe	0.6 %	0.2 %	(0.6)%	2.1 %	0.9 %	(0.2)%	(0.7)%	2.3 %
Impact of a hypothetical 10% change in total net foreign currency exposure	\$ (3,505)	\$ (1,456)	\$ 3,828	\$ (12,244)	\$ (5,151)	\$ 971	\$ 3,902	\$ (13,654)

Credit Risk

Credit risk relates to the uncertainty of a counterparty's ability to make timely payments in accordance with contractual terms of the instrument or contract and market risk associated with changes in credit spreads. We are primarily exposed to direct credit risk within our portfolios of fixed maturity and short term investments, and through customers and reinsurers in the form of premiums receivable and reinsurance recoverable, respectively, as discussed below.

Fixed Maturity Investments and Short Term Investments

Credit risk related to our fixed maturity investments and short term investments is the exposure to adverse changes in the creditworthiness of individual investment holdings, issuers, groups of issuers, industries and countries. We manage credit risk in our fixed maturity investments and short term investments through credit research performed primarily by our investment management service providers and our evaluation of these investment managers adherence to investment mandates provided to them. The management of credit risk in the investment portfolio is integrated in our credit risk governance framework and the management of credit exposures and concentrations within the investment portfolio are carried out in accordance with our risk policies, limits and risk concentrations as overseen by the Investment and Risk Management Committee of our Board of Directors. In the investment portfolio, we review on a regular basis our asset concentration, credit quality and adherence to credit limit guidelines. At December 31, 2020, our fixed maturity investments and short term investment portfolio had a dollar-weighted average credit quality rating of AAA (2019 - AA). In addition, we limit the amount of credit exposure to any one financial institution and, except for the securities of the U.S. Government and U.S. Government related entities, and money market securities, none of our fixed-maturity and short-term investments exceeded 10% of shareholders' equity at December 31, 2020.

The following table summarizes the ratings of our fixed maturity investments and short term investments (using ratings assigned by S&P and/or other rating agencies when S&P ratings were not available) as a percentage of total fixed maturity investments and short term investments as of the dates indicated:

At December 31,	2020	2019
AAA	36.9 %	35.8 %
AA	39.5 %	44.0 %
A	8.0 %	9.3 %
BBB	8.3 %	5.6 %
Non-investment grade	6.8 %	4.9 %
Not rated	0.5 %	0.4 %
Total	100.0 %	100.0 %

We consider the impact of credit spread movements on the fair value of our fixed maturity and short term investments portfolio. As credit spreads widen, the fair value of our fixed maturity and short term investments decreases, and vice versa.

The following tables summarize the aggregate hypothetical increase (decrease) in fair value from an immediate parallel shift in credit spreads, assuming the treasury yield curve remains constant, reflecting the use of an immediate time horizon since this presents the worst-case scenario, in our fixed maturity investments and short term investments portfolio for the years indicated:

At December 31, 2020 (in thousands, except percentages)	Credit Spread Shift in Basis Points				
	-100	-50	Base	50	100
Fair value of fixed income and short term investments	\$ 18,756,296	\$ 18,658,734	\$ 18,500,238	\$ 18,312,194	\$ 18,124,447
Net increase (decrease) in fair value	\$ 256,058	\$ 158,496	\$ —	\$ (188,044)	\$ (375,791)
Percentage change in fair value	1.4 %	0.9 %	— %	(1.0)%	(2.0)%

At December 31, 2019 (in thousands, except percentages)	Credit Spread Shift in Basis Points				
	-100	-50	Base	50	100
Fair value of fixed income and short term investments	\$ 15,879,718	\$ 15,833,057	\$ 15,737,932	\$ 15,626,356	\$ 15,514,779
Net increase (decrease) in fair value	\$ 141,786	\$ 95,125	\$ —	\$ (111,576)	\$ (223,153)
Percentage change in fair value	0.9 %	0.6 %	— %	(0.7)%	(1.4)%

We also employ credit derivatives in our investment portfolio to either assume credit risk or hedge our credit exposure. At December 31, 2020, we had outstanding credit derivatives of \$Nil in notional positions to hedge credit risk and \$96.8 million in notional positions to assume credit risk, denominated in U.S. dollars (2019 - \$0.5 million and \$143.4 million, respectively). Refer to "Note 19. Derivative Instruments" in our "Notes to the Consolidated Financial Statements" for additional information related to credit derivatives entered into by us. The aggregate hypothetical market value impact from an immediate upward shift in credit spreads of 100 basis points would cause a decrease in the market value of our net position in these derivatives of approximately \$1.6 million at December 31, 2020. Conversely, the aggregate hypothetical market value impact from an immediate downward shift in credit spreads of 100 basis points would cause

an increase in the market value of our net position in these derivatives of approximately \$1.6 million at December 31, 2020. For an immediate downward shift in credit spreads, we do not allow credit spreads to go negative in calculating the impact. The foregoing reflects the use of an immediate time horizon, since this presents the worst-case scenario.

Premiums Receivable and Reinsurance Recoverable

Premiums receivable from ceding companies and reinsurance recoverable from our reinsurers are subject to credit risk. To mitigate credit risk related to reinsurance premiums receivable, we have established standards for ceding companies and, in most cases, have a contractual right of offset allowing us to settle claims net of any reinsurance premiums receivable. To mitigate credit risk related to our reinsurance recoverable amounts, we consider the financial strength of our reinsurers when determining whether to purchase coverage from them. We generally obtain reinsurance coverage from companies rated "A-" or better by S&P unless the obligations are collateralized. We routinely monitor the financial performance and rating status of all material reinsurers. Refer to "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Summary of Critical Accounting Estimates—Reinsurance Recoverable" for additional information with respect to reinsurance recoverable.

Equity Price Risk

Equity price risk is the potential loss arising from changes in the market value of equities. As detailed in the table below, we are directly exposed to this risk through our investment in equity investments trading, including certain positions in our strategic investment portfolio, which are traded on nationally recognized stock exchanges; and indirectly exposed to this risk through our investments in: (1) private equity investments whose exit strategies often depend on the equity markets; and (2) other ventures, under equity method. We may, from time to time, use equity derivatives in our investment portfolio to either assume equity risk or hedge our equity exposure. The following table summarizes a hypothetical 10% increase and decline in the carrying value of our equity investments trading, private equity investments, hedge funds and investments in other ventures, under equity method, holding all other factors constant, at the dates indicated:

At December 31, (in thousands, except for percentages)	2020	2019
Equity investments trading, at fair value	\$ 702,617	\$ 436,931
Private equity investments, at fair value	345,501	271,047
Investments in other ventures, under equity method	98,373	106,549
Hedge funds, at fair value	10,553	12,091
Total carrying value of investments exposed to equity price risk	<u>\$ 1,157,044</u>	<u>\$ 826,618</u>
Impact of a hypothetical 10% increase in the carrying value of investments exposed to equity price risk	\$ 115,704	\$ 82,662
Impact of a hypothetical 10% decrease in the carrying value of investments exposed to equity price risk	\$ (115,704)	\$ (82,662)

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Reference is made to Item 15 of this Report for the Consolidated Financial Statements of RenaissanceRe and the Notes thereto, as well as the Schedules to the Consolidated Financial Statements.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(b) and 15d-15(b) of the Exchange Act, as of the end of the period covered by this report. Based upon that evaluation, our management, including our Chief Executive Officer and Chief Financial Officer, concluded that, at December 31, 2020, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in Company reports filed or submitted under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. Our internal control over financial reporting was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles and to reflect management's judgments and estimates concerning effects of events and transactions that are accounted for or disclosed.

Our 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 our transactions and the dispositions of our assets; (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 our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

There are inherent limitations to the effectiveness of any controls. Our Board of Directors and management, including our Chief Executive Officer and Chief Financial Officer, do not expect that our disclosure controls and procedures or internal control over financial reporting will prevent all errors and all fraud. Controls, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the controls are met. Further, we believe that the design of controls must reflect appropriate resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in controls, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within RenaissanceRe have been detected.

Management, with the participation of the Chief Executive Officer and Chief Financial Officer, assessed our internal control over financial reporting as of December 31, 2020 using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013). Based on this assessment, management concluded that RenaissanceRe's internal control over financial reporting was effective as of December 31, 2020.

Ernst & Young Ltd., the independent registered public accountants who audited our consolidated financial statements included in this Form 10-K, audited our internal control over financial reporting as of December 31, 2020 and their attestation report on our internal control over financial reporting appears below.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2020, which were identified in connection with our evaluation required pursuant to Rules 13a-15 or 15d-15 under the Exchange Act, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of RenaissanceRe Holdings Ltd.

Opinion on Internal Control Over Financial Reporting

We have audited RenaissanceRe Holdings Ltd. and subsidiaries' internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, RenaissanceRe Holdings Ltd. and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of RenaissanceRe Holdings Ltd. and subsidiaries as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income (loss), changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and schedules and our reports dated February 5, 2021 expressed an unqualified opinion thereon.

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 Control 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/ Ernst & Young Ltd.

Hamilton, Bermuda
February 5, 2021

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item relating to our directors, executive officers and corporate governance is incorporated herein by reference to information found in our Proxy Statement for the Annual General Meeting of Shareholders to be held on May 5, 2021 (our "Proxy Statement"). We intend to file our Proxy Statement no later than 120 days after the close of the fiscal year.

We have adopted a Code of Ethics within the meaning of Item 406 of Regulation S-K of the Exchange Act that applies to all of our directors and employees, including our principal executive officer, principal financial officer, principal accounting officer, controller and other persons performing similar functions. The Code of Ethics is available free of charge on our website *www.renre.com*. We will also provide a printed version of the Code of Ethics to any shareholder who requests it. We intend to disclose any amendments to our Code of Ethics by posting such information on our website. Any waivers of our Code of Ethics applicable to our directors, principal executive officer, principal financial officer, principal accounting officer or controller and other persons who perform similar functions will be disclosed on our website or by filing a Form 8-K, as required.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item relating to executive compensation is incorporated herein by reference to information included in our Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS

The information required by this Item relating to security ownership of certain beneficial owners and management and securities authorized for issuance under equity compensation plans is incorporated herein by reference to information included in our Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item relating to certain relationships and related transactions and director independence is incorporated herein by reference to information included in our Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item relating to principal accountant fees and services is incorporated herein by reference to information included in our Proxy Statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Financial Statements

The Consolidated Financial Statements of RenaissanceRe Holdings Ltd. and related Notes thereto are listed in the accompanying Index to Consolidated Financial Statements and are filed as part of this Form 10-K.

Financial Statement Schedules

The Schedules to the Consolidated Financial Statements of RenaissanceRe Holdings Ltd. are listed in the accompanying Index to Schedules to Consolidated Financial Statements and are filed as a part of this Form 10-K.

Exhibit Index

Exhibit

Number Description

- 3.1 Memorandum of Association. (P) (1)
- 3.2 [Amended and Restated Bye-Laws](#). (2)
- 3.3 [Memorandum of Increase in Share Capital of RenaissanceRe Holdings Ltd.](#) (3)
- 3.4 Specimen Common Share certificate. (P) (1)
- 4.1 [Certificate of Designation, Preferences and Rights of 5.375% Series E Preference Shares](#). (4)
- 4.1(a) [Form of Stock Certificate Evidencing the 5.375% Series E Preference Shares](#). (4)
- 4.2 [Certificate of Designation, Preferences and Rights of 5.750% Series F Preference Shares](#). (24)
- 4.2(a) [Form of Stock Certificate Evidencing the 5.750% Series F Preference Shares](#). (24)
- 4.2(b) [Deposit Agreement, dated June 18, 2018, among RenaissanceRe Holdings Ltd., Computershare, Inc. and Computershare Trust Company, N.A.](#) (24)
- 4.2(c) [Form of Depositary Receipt](#). (24)
- 4.3 [Senior Indenture, dated as of March 24, 2015, among RenaissanceRe Finance Inc., as issuer, RenaissanceRe Holdings Ltd., as guarantor, and Deutsche Bank Trust Company Americas, as trustee](#). (10)
- 4.3(a) [First Supplemental Indenture, dated as of March 24, 2015, among RenaissanceRe Finance Inc., as issuer, RenaissanceRe Holdings Ltd., as guarantor, and Deutsche Bank Trust Company Americas, as trustee](#). (10)
- 4.3(b) [Senior Debt Securities Guarantee Agreement, dated as of March 24, 2015, between RenaissanceRe Holdings Ltd., as guarantor, and Deutsche Bank Trust Company Americas, as guarantee trustee](#). (10)
- 4.4 [Senior Indenture, dated as of June 29, 2017, among RenaissanceRe Finance Inc., as issuer, RenaissanceRe Holdings Ltd., as guarantor, and Deutsche Bank Trust Company Americas, as trustee](#). (19)
- 4.4(a) [First Supplemental Indenture, dated as of June 29, 2017, among RenaissanceRe Finance Inc., as issuer, RenaissanceRe Holdings Ltd., as guarantor, and Deutsche Bank Trust Company Americas, as trustee](#). (19)
- 4.4(b) [Second Supplemental Indenture, March 25, 2019, by and among RenaissanceRe Finance Inc., as issuer, RenaissanceRe Holdings Ltd., as guarantor and Deutsche Bank Trust Company Americas, as trustee](#). (31)
- 4.4(c) [Senior Debt Securities Guarantee Agreement, dated as of June 29, 2017, between RenaissanceRe Holdings Ltd., as guarantor, and Deutsche Bank Trust Company Americas, as guarantee trustee](#). (19)
- 4.5 [Senior Indenture, dated as of April 2, 2019, by and between RenaissanceRe Holdings Ltd., as issuer, and Deutsche Bank Trust Company Americas, as trustee](#). (32)
- 4.5(a) [First Supplemental Indenture, dated as of April 2, 2019, by and between RenaissanceRe Holdings Ltd., as issuer, and Deutsche Bank Trust Company Americas, as trustee](#). (32)
- 4.6 [Description of Securities](#).
- 10.1* [Further Amended and Restated Employment Agreement, dated as of July 22, 2016, by and between RenaissanceRe Holdings Ltd. and Kevin J. O'Donnell](#). (13)
- 10.2* [Legacy Form of Further Amended and Restated Employment Agreement for Named Executive Officers \(other than our Chief Executive Officer\)](#). (13)**
- 10.3* [Form of Employment Agreement for Named Executive Officers \(other than our Chief Executive Officer\)](#). (13)***
- 10.4* [Letter agreement, dated July 6, 2016, between Ian Branagan and RenaissanceRe Holdings Ltd. regarding secondment to the U.K.](#) (13)
- 10.5* [Letter agreement, dated April 11, 2013, between Ian Branagan and RenaissanceRe Holdings Ltd. regarding secondment to the U.K.](#) (13)
- 10.6* [Separation, Consulting, and Release Agreement, dated December 3, 2020, between RenaissanceRe Holdings Ltd. and Stephen H. Weinstein](#). (42)
- 10.7* [RenaissanceRe Holdings Ltd. 2016 Long-Term Incentive Plan](#). (22)
- 10.7(a)* [Form of Director Restricted Stock Agreement under the RenaissanceRe Holdings Ltd. 2016 Long-Term Incentive Plan](#). (13)

- 10.7(b)* [Form of Restricted Stock Agreement under the RenaissanceRe Holdings Ltd. 2016 Long-Term Incentive Plan.](#) (13)
- 10.7(c)* [Form of Performance Share Agreement under the RenaissanceRe Holdings Ltd. 2016 Long-Term Incentive Plan \(for awards made in 2017 and March 2018\).](#) (18)
- 10.7(d)* [Form of Performance Share Agreement under the RenaissanceRe Holdings Ltd. 2016 Long-Term Incentive Plan \(for awards made in May 2018 and March 2019\).](#) (23)
- 10.7(e)* [Form of Performance Share Agreement under the RenaissanceRe Holdings Ltd. 2016 Long-Term Incentive Plan \(for awards made in March 2020 and later\).](#) (37)
- 10.8 [RenaissanceRe Holdings Ltd. Deferred Cash Award Plan.](#) (20)
- 10.8(a) [Form of Deferred Cash Award Agreement pursuant to which Deferred Cash Awards are granted under the RenaissanceRe Holdings Ltd. Deferred Cash Award Plan.](#) (20)
- 10.9* [RenaissanceRe Holdings Ltd. 2016 Restricted Stock Unit Plan.](#) (23)
- 10.9(a)* [Form of Restricted Stock Unit Agreement pursuant to which restricted stock unit grants are made under the RenaissanceRe Holdings Ltd. 2016 Restricted Stock Unit Plan.](#) (15)
- 10.10* [Form of Tax Reimbursement Waiver Letter with the Named Executive Officers.](#) (8)
- 10.11* [Form of Agreement Regarding Use of Aircraft Interest by and between RenaissanceRe Holdings Ltd. and Certain Executive Officers of RenaissanceRe Holdings Ltd.](#) (7)
- 10.12* [Form of Director Retention Agreement, dated as of November 8, 2002, entered into by each of the non-employee directors of RenaissanceRe Holdings Ltd.](#) (9)
- 10.13 [Amended and Restated Standby Letter of Credit Agreement, dated as of June 21, 2019, by and among Renaissance Reinsurance Ltd., RenaissanceRe Specialty U.S. Inc., DaVinci Reinsurance Ltd., RenaissanceRe Europe AG, RenaissanceRe Holdings Ltd., as Guarantor, and Wells Fargo Bank, National Association.](#) (33)
- 10.13(a) [First Amendment to Amended and Restated Standby Letter of Credit Agreement, dated as of June 11, 2020, by and among Renaissance Reinsurance Ltd., RenaissanceRe Specialty U.S. Inc., DaVinci Reinsurance Ltd., RenaissanceRe Europe AG, RenaissanceRe Holdings Ltd., as Guarantor, and Wells Fargo Bank, National Association.](#) (39)
- 10.14 [Facility Letter, dated September 17, 2010, from Citibank Europe plc to Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd. and Glencoe Insurance Ltd.](#) (5)
- 10.14(a) [Insurance Letters of Credit - Master Agreement, dated September 17, 2010, between Renaissance Reinsurance Ltd. and Citibank Europe plc. DaVinci Reinsurance Ltd., Glencoe Insurance Ltd., Renaissance Reinsurance of Europe, Renaissance Specialty U.S. Ltd., Platinum Underwriters Bermuda, Ltd. and Renaissance Reinsurance U.S. Inc. each entered into an agreement with Citibank Europe plc that is identical to the foregoing agreement, except with respect to party names and dates.](#) (5)
- 10.14(b) [Amendment to Facility Letter, dated July 14, 2011, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd and Glencoe Insurance Ltd.](#) (28)
- 10.14(c) [Amendment to Facility Letter, dated October 1, 2013, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., RenaissanceRe Specialty Risks Ltd., Renaissance Reinsurance of Europe and RenaissanceRe Specialty U.S. Ltd.](#) (6)
- 10.14(d) [Amendment to Facility Letter, dated December 23, 2014, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., RenaissanceRe Specialty Risks Ltd., Renaissance Reinsurance of Europe and RenaissanceRe Specialty U.S. Ltd.](#) (12)
- 10.14(e) [Amendment to Facility Letter, dated March 31, 2015, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., RenaissanceRe Specialty Risks Ltd., Renaissance Reinsurance of Europe, RenaissanceRe Specialty U.S. Ltd., Platinum Underwriters Bermuda, Ltd. and Platinum Underwriters Reinsurance, Inc.](#) (12)
- 10.14(f) [Amendment to Facility Letter, dated December 30, 2015, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., RenaissanceRe Specialty Risks Ltd., Renaissance Reinsurance of Europe, RenaissanceRe Specialty U.S. Ltd., Platinum Underwriters Bermuda, Ltd. and Renaissance Reinsurance U.S. Inc.](#) (11)
- 10.14(g) [Amendment to Facility Letter, dated January 14, 2016, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., RenaissanceRe Specialty Risks Ltd., Renaissance Reinsurance of Europe, RenaissanceRe Specialty U.S. Ltd., Platinum Underwriters Bermuda, Ltd. and Renaissance Reinsurance U.S. Inc.](#) (12)
- 10.14(h) [Termination of Master Agreements, Control Agreements and Pledge Agreements, dated October 1, 2016, between Renaissance Reinsurance Ltd. and Citibank Europe plc.](#) (14)

- 10.14(i) [Amendment to Facility Letter, dated December 31, 2016, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., Renaissance Reinsurance of Europe, RenaissanceRe Specialty U.S. Ltd. and Renaissance Reinsurance U.S. Inc.](#) (17)
- 10.14(j) [Amendment to Facility Letter, dated December 29, 2017, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., Renaissance Reinsurance of Europe Unlimited Company, RenaissanceRe Specialty U.S. Ltd. and Renaissance Reinsurance U.S. Inc.](#) (21)
- 10.14(k) [Amendment to Facility Letter, dated December 31, 2018, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., Renaissance Reinsurance of Europe Unlimited Company, RenaissanceRe Specialty U.S. Ltd. and Renaissance Reinsurance U.S. Inc.](#) (27)
- 10.14(l) [Deed of Amendment and Accession, dated June 24, 2019, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., RenaissanceRe Specialty U.S. Ltd., Renaissance Reinsurance of Europe, Renaissance Reinsurance U.S. Inc and RenaissanceRe Europe AG.](#) (34)
- 10.14(m) [Deed of Amendment to Facility Letter, dated December 31, 2019, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., Renaissance Reinsurance of Europe, RenaissanceRe Specialty U.S. Ltd., Renaissance Reinsurance U.S. Inc. and RenaissanceRe Europe AG.](#) (36)
- 10.14(n) [Deed of Amendment to Facility Letter, dated December 31, 2020, by and among Citibank Europe plc, Renaissance Reinsurance Ltd., DaVinci Reinsurance Ltd., Renaissance Reinsurance of Europe, RenaissanceRe Specialty U.S. Ltd., Renaissance Reinsurance U.S. Inc. and RenaissanceRe Europe AG.](#) (43)
- 10.15 [Amended and Restated Letter of Credit Reimbursement Agreement, dated as of November 7, 2019, by and among Renaissance Reinsurance Ltd., as borrower, ING Bank N.V., London Branch, as agent and as lender, Bank of Montreal, London Branch, as a lender, and Citibank Europe plc, as a lender.](#) (35)
- 10.15(a) [First Amendment to Amended and Restated Letter of Credit Reimbursement Agreement, dated October 30, 2020, by and among Renaissance Reinsurance Ltd., as borrower, ING Bank N.V., London Branch, as agent and as a lender, Bank of Montreal, London Branch, as a lender, and Citibank Europe plc, as a lender.](#) (41)
- 10.16 [Second Amended and Restated Credit Agreement, dated as of November 9, 2018, by and among RenaissanceRe Holdings Ltd., Renaissance Reinsurance Ltd., RenaissanceRe Specialty U.S. Ltd., Renaissance Reinsurance U.S. Inc., various banks and financial institutions parties thereto, and Wells Fargo Bank, National Association, as Fronting Bank, LC Administrator and Administrative Agent for the Lenders.](#) (26)
- 10.16(a) [Guaranty Agreement, dated as of November 9, 2018, by and among RenRe North America Holdings Inc., RenaissanceRe Finance Inc. and Wells Fargo Bank, National Association, as Administrative Agent.](#) (26)
- 10.16(b) [First Amendment to Loan Documents, dated June 11, 2019, by and among RenaissanceRe Holdings Ltd., Renaissance Reinsurance Ltd., RenaissanceRe Specialty U.S. Ltd., Renaissance Reinsurance U.S. Inc., various banks and financial institutions parties thereto, and Wells Fargo Bank, National Association, as Fronting Bank, LC Administrator, a Swingline Lender and Administrative Agent for the Lenders.](#) (34)
- 10.17 [Master Agreement for Issuance of Payment Instruments, dated March 22, 2019, between Renaissance Reinsurance Ltd., RenaissanceRe Specialty U.S. Ltd., Renaissance Reinsurance Inc., RenaissanceRe Europe AG and Citibank Europe plc.](#) (30)
- 10.17(a) [Facility Letter for Issuance of Payment Instruments, dated March 22, 2019, by and among Renaissance Reinsurance Ltd., RenaissanceRe Specialty U.S. Ltd., Renaissance Reinsurance Inc., RenaissanceRe Europe AG and Citibank Europe plc.](#) (30)
- 10.17(b) [Deed of Release, dated August 18, 2020, by and among Citibank Europe Plc, RenaissanceRe Holdings Ltd. and RenaissanceRe \(UK\) Ltd.](#) (40)
- 10.18 [Waiver, dated as of November 15, 2016, by and between RenaissanceRe Holdings Ltd. and BlackRock, Inc.](#) (16)
- 10.19 [Waiver, dated as of May 11, 2018, by and between RenaissanceRe Holdings Ltd. and The Vanguard Group, Inc.](#) (23)

- 10.20 [Registration Rights Agreement, dated October 30, 2018, by and between RenaissanceRe Holdings Ltd. and State Farm Mutual Automobile Insurance Co. Ltd.](#) (25)
- 10.21+ [Reserve Development Agreement, dated as of March 22, 2019, by and between Tokio Millennium Re AG, and Tokio Millennium Re \(UK\) Limited and Tokio Marine & Nichido Fire Insurance Co., Ltd.](#) (29)
- 10.22+ [Retrocession Agreement, dated as of March 22, 2019, by and between Tokio Millennium Re AG and Tokio Marine & Nichido Fire Insurance Co., Ltd.](#) (29)
- 10.23 [Amended and Restated Registration Rights Agreement, dated June 2, 2020, by and between RenaissanceRe Holdings Ltd. and State Farm Mutual Automobile Insurance.](#) (38)
- 21.1 [List of Subsidiaries of the Registrant.](#)
- 22.1 [Issuers of Registered Guaranteed Debt Securities.](#)
- 23.1 [Consent of Ernst & Young Ltd.](#)
- 31.1 [Certification of Kevin J. O'Donnell, Chief Executive Officer of RenaissanceRe Holdings Ltd., pursuant to Rule 13a-14\(a\) or Rule 15d-14\(a\) of the Securities Exchange Act of 1934, as amended.](#)
- 31.2 [Certification of Robert Qutub, Chief Financial Officer of RenaissanceRe Holdings Ltd., pursuant to Rule 13a-14\(a\) or Rule 15d-14\(a\) of the Securities Exchange Act of 1934, as amended.](#)
- 32.1 [Certification of Kevin J. O'Donnell, Chief Executive Officer of RenaissanceRe Holdings Ltd., pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.](#)
- 32.2 [Certification of Robert Qutub, Chief Financial Officer of RenaissanceRe Holdings Ltd., pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.](#)
- 101.INS Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
- 101.SCH Inline XBRL Taxonomy Extension Schema Document
- 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document
- 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document
- 104 Cover Page Interactive Data File (embedded within the Inline XBRL document and included in Exhibit 101)

Represents management contract or compensatory plan or arrangement.

** Applicable to Stephen H. Weinstein and Ian D. Branagan.

*** Applicable to Ross A. Curtis and Robert Qutub.

+ Certain schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Company hereby undertakes to furnish supplemental copies of any of the omitted schedules upon request by the SEC.

- (1) Incorporated by reference to the Registration Statement on Form S-1 of RenaissanceRe Holdings Ltd. (Registration No. 33-70008) which was declared effective by the SEC on July 26, 1995.
- (2) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Quarterly Report on Form 10-Q for the period ended June 30, 2002, filed with the SEC on August 14, 2002.
- (3) Incorporated by reference to Exhibit 3.1 to RenaissanceRe Holdings Ltd.'s Quarterly Report on Form 10-Q for the period ended March 31, 1998, filed with the SEC on May 14, 1998.
- (4) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on May 28, 2013.
- (5) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on September 23, 2010.
- (6) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on October 4, 2013.
- (7) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2012, filed with the SEC on February 22, 2013.
- (8) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2011, filed with the SEC on February 23, 2012.
- (9) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2002, filed with the SEC on March 31, 2003 (SEC File Number 001-14428).

- (10) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on March 25, 2015.
- (11) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on December 31, 2015.
- (12) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on February 19, 2016.
- (13) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Quarterly Report on Form 10-Q for the period ended June 30, 2016, filed with the SEC on July 27, 2016.
- (14) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Quarterly Report on Form 10-Q for the period ended September 30, 2016, filed with the SEC on November 2, 2016.
- (15) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on November 10, 2016.
- (16) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on November 18, 2016.
- (17) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on January 5, 2017.
- (18) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on February 23, 2017.
- (19) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on June 29, 2017.
- (20) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on November 13, 2017.
- (21) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on January 3, 2018.
- (22) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on February 9, 2018.
- (23) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on May 16, 2018.
- (24) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on June 19, 2018.
- (25) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on November 5, 2018.
- (26) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on November 14, 2018.
- (27) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on January 3, 2019.
- (28) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on February 7, 2019.
- (29) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the Commission on March 22, 2019.
- (30) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on March 25, 2019.
- (31) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the Commission on March 26, 2019.
- (32) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the Commission on April 2, 2019.
- (33) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on June 24, 2019.
- (34) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Quarterly Report on Form 10-Q for the period ended June 30, 2019, filed with the SEC on July 25, 2019.
- (35) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on November 12, 2019.
- (36) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on January 3, 2020.
- (37) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 7, 2020.

- (38) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on June 5, 2020.
- (39) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Quarterly Report on Form 10-Q for the period ended June 30, 2020, filed with the SEC on July 29, 2020.
- (40) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Quarterly Report on Form 10-Q for the period ended September 30, 2020, filed with the SEC on November 3, 2020.
- (41) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on November 3, 2020.
- (42) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on December 4, 2020.
- (43) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the SEC on January 5, 2021.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

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.

Date: February 5, 2021

RENAISSANCERE HOLDINGS LTD.

/s/ Kevin J. O'Donnell

Kevin J. O'Donnell

Chief Executive Officer and President

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 and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Kevin J. O'Donnell</u> Kevin J. O'Donnell	Chief Executive Officer, President and Director (Principal Executive Officer)	February 5, 2021
<u>/s/ Robert Qutub</u> Robert Qutub	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 5, 2021
<u>/s/ James C. Fraser</u> James C. Fraser	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 5, 2021
<u>/s/ James L. Gibbons</u> James L. Gibbons	Non-Executive Chair of the Board of Directors	February 5, 2021
<u>/s/ David C. Bushnell</u> David C. Bushnell	Director	February 5, 2021
<u>/s/ Brian G. J. Gray</u> Brian G. J. Gray	Director	February 5, 2021
<u>/s/ Jean D. Hamilton</u> Jean D. Hamilton	Director	February 5, 2021
<u>/s/ Duncan P. Hennes</u> Duncan P. Hennes	Director	February 5, 2021
<u>/s/ Henry Klehm, III</u> Henry Klehm, III	Director	February 5, 2021
<u>/s/ Valerie Rahmani</u> Valerie Rahmani	Director	February 5, 2021
<u>/s/ Carol P. Sanders</u> Carol P. Sanders	Director	February 5, 2021
<u>/s/ Anthony M. Santomero</u> Anthony M. Santomero	Director	February 5, 2021
<u>/s/ Cynthia Trudell</u> Cynthia Trudell	Director	February 5, 2021

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of RenaissanceRe Holdings Ltd.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of RenaissanceRe Holdings Ltd. and subsidiaries (the Company) as of December 31, 2020 and 2019, 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, 2020, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have 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, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 5, 2021, expressed an unqualified opinion thereon.

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 Matters

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 the critical audit matter does not alter in any way our opinion on the consolidated 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 account or disclosures to which it relates.

Valuation of Reserve for Incurred But Not Reported Claim Reserves

Description of the Matter At December 31, 2020, the liability for incurred but not reported (IBNR) claim reserves, including additional case reserves (ACR) (collectively referred to as IBNR claim reserves) represented \$7,602 million of the total \$10,381 million of reserves for claims and claim expenses. The IBNR claim reserves for the property segment was \$3,245 million and for the casualty and specialty segment was \$4,357 million. As disclosed in Notes 2 and 8 of the consolidated financial statements, reserves for claims and claim expenses represent estimates that are established by management based on actuarial and statistical projections at a given point in time, of the ultimate settlement and administration costs for unpaid claims and claim expenses arising from the insurance and reinsurance contracts the Company sells for both their casualty and specialty segment and their property segment.

There is significant uncertainty inherent in estimating IBNR claim reserves. In determining management's estimate of the IBNR claim reserves for the casualty and specialty segment, management's analysis includes consideration of loss development patterns; historical ultimate loss ratios; and the presence of individual large losses. In particular, the estimate is sensitive to the selection and weighting of actuarial methods, expected trends in claim severity and frequency, the time lag inherent in reporting information and industry or event trends. In determining management's estimate of the ultimate loss settlement costs which is used to determine the IBNR claim reserves for the property segment, which generally involve catastrophic events, management's analysis includes available information derived from claims information from certain customers and brokers, industry assessments of losses from the events, proprietary models, and the terms and conditions of the Company's contracts. In particular, the estimate is sensitive to the preliminary nature of the information available, the magnitude and relative infrequency of the events, the expected duration of the respective claims development period, inadequacies in the data provided to the relevant date by industry participants and the potential for further reporting lags or insufficiencies, and in certain large events, significant uncertainty as to the form of the claims and legal issues under the relevant terms of insurance and reinsurance contracts.

Auditing management's estimate for IBNR claim reserves was complex and required the involvement of our actuarial specialists due to the high degree of subjectivity inherent in management's methods and assumptions used in the calculations which have a significant effect on the valuation of the reserves.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of the relevant controls over the estimation process for IBNR claim reserves. This included, among others, evaluating management's review controls over the actuarial methods selected to determine the estimate and the assumptions and methods used for the Company's determination of their recorded estimate.

To test the IBNR claim reserves that are included in claims and claim expense reserves, our audit procedures included, among others, utilizing the assistance of actuarial specialists. Our actuarial specialists evaluated the selection of standard reserving methods applied, considering the methods used in prior periods and those applied in the broader insurance industry. To evaluate the significant assumptions used by management in the reserving methods for the casualty and specialty segment, we compared the significant assumptions, including loss development patterns, ultimate loss ratios, and the impact of individual large losses, to company experience and current industry benchmarks. To evaluate the significant assumptions used by management in their actuarial methods in the property segment we compared the significant assumptions, including the severity of industry losses by event and development patterns, to current industry benchmarks such as incurred to ultimate loss ratios and industry loss levels. In addition, for casualty, specialty and property claims and claims expense reserves, we developed a range of reasonable reserve estimates including performing independent projections for a significant portion of the Company's classes of business and compared the range of reserve estimates to the Company's recorded claims and claim expense reserves.

/s/ Ernst & Young Ltd.

We have served as the Company's auditor since 1993.
Hamilton, Bermuda
February 5, 2021

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Balance Sheets
At December 31, 2020 and 2019

(in thousands of United States Dollars, except share and per share amounts)

	December 31, 2020	December 31, 2019
Assets		
Fixed maturity investments trading, at fair value - amortized cost \$13,155,035 at December 31, 2020 (2019 - \$11,067,414) (Notes 5 and 6)	\$ 13,506,503	\$ 11,171,655
Short term investments, at fair value (Notes 5 and 6)	4,993,735	4,566,277
Equity investments trading, at fair value (Notes 5 and 6)	702,617	436,931
Other investments, at fair value (Notes 5 and 6)	1,256,948	1,087,377
Investments in other ventures, under equity method (Note 5)	98,373	106,549
Total investments	20,558,176	17,368,789
Cash and cash equivalents	1,736,813	1,379,068
Premiums receivable (Note 7)	2,894,631	2,599,896
Prepaid reinsurance premiums (Note 7)	823,582	767,781
Reinsurance recoverable (Notes 7 and 8)	2,926,010	2,791,297
Accrued investment income	66,743	72,461
Deferred acquisition costs and value of business acquired	633,521	663,991
Receivable for investments sold	568,293	78,369
Other assets	363,170	346,216
Goodwill and other intangible assets (Note 4)	249,641	262,226
Total assets	\$ 30,820,580	\$ 26,330,094
Liabilities, Noncontrolling Interests and Shareholders' Equity		
Liabilities		
Reserve for claims and claim expenses (Note 8)	\$ 10,381,138	\$ 9,384,349
Unearned premiums	2,763,599	2,530,975
Debt (Note 9)	1,136,265	1,384,105
Reinsurance balances payable	3,488,352	2,830,691
Payable for investments purchased	1,132,538	225,275
Other liabilities	970,121	932,024
Total liabilities	19,872,013	17,287,419
Commitments and Contingencies (Note 20)		
Redeemable noncontrolling interests (Note 10)	3,388,319	3,071,308
Shareholders' Equity (Note 12)		
Preference shares: \$1.00 par value – 11,010,000 shares issued and outstanding at December 31, 2020 (2019 – 16,010,000)	525,000	650,000
Common shares: \$1.00 par value – 50,810,618 shares issued and outstanding at December 31, 2020 (2019 – 44,148,116)	50,811	44,148
Additional paid-in capital	1,623,206	568,277
Accumulated other comprehensive loss	(12,642)	(1,939)
Retained earnings	5,373,873	4,710,881
Total shareholders' equity attributable to RenaissanceRe	7,560,248	5,971,367
Total liabilities, noncontrolling interests and shareholders' equity	\$ 30,820,580	\$ 26,330,094

See accompanying notes to the consolidated financial statements

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Statements of Operations
For the years ended December 31, 2020, 2019, and 2018
(in thousands of United States Dollars, except per share amounts)

	2020	2019	2018
Revenues			
Gross premiums written (Note 7)	\$ 5,806,165	\$ 4,807,750	\$ 3,310,427
Net premiums written (Note 7)	\$ 4,096,333	\$ 3,381,493	\$ 2,131,902
Increase in unearned premiums	(143,871)	(43,090)	(155,773)
Net premiums earned (Note 7)	3,952,462	3,338,403	1,976,129
Net investment income (Note 5)	354,038	424,207	269,965
Net foreign exchange gains (losses)	27,773	(2,938)	(12,428)
Equity in earnings of other ventures (Note 5)	17,194	23,224	18,474
Other income	213	4,949	5,969
Net realized and unrealized gains (losses) on investments (Note 5)	820,636	414,109	(183,168)
Total revenues	5,172,316	4,201,954	2,074,941
Expenses			
Net claims and claim expenses incurred (Notes 7 and 8)	2,924,609	2,097,021	1,120,018
Acquisition expenses	897,677	762,232	432,989
Operational expenses	206,687	222,733	178,267
Corporate expenses	96,970	94,122	33,983
Interest expense (Note 9)	50,453	58,364	47,069
Total expenses	4,176,396	3,234,472	1,812,326
Income before taxes	995,920	967,482	262,615
Income tax (expense) benefit (Note 15)	(2,862)	(17,215)	6,302
Net income	993,058	950,267	268,917
Net income attributable to redeemable noncontrolling interests (Note 10)	(230,653)	(201,469)	(41,553)
Net income attributable to RenaissanceRe	762,405	748,798	227,364
Dividends on preference shares (Note 12)	(30,923)	(36,756)	(30,088)
Net income available to RenaissanceRe common shareholders	\$ 731,482	\$ 712,042	\$ 197,276
Net income available to RenaissanceRe common shareholders per common share – basic (Note 13)	\$ 15.34	\$ 16.32	\$ 4.91
Net income available to RenaissanceRe common shareholders per common share – diluted (Note 13)	\$ 15.31	\$ 16.29	\$ 4.91

See accompanying notes to the consolidated financial statements

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Statements of Comprehensive Income
For the years ended December 31, 2020, 2019 and 2018
(in thousands of United States Dollars)

Comprehensive income	<u>2020</u>	<u>2019</u>	<u>2018</u>
Net income	\$ 993,058	\$ 950,267	\$ 268,917
Change in net unrealized gains on investments, net of tax	606	2,173	(1,657)
Foreign currency translation adjustments, net of tax	(11,309)	(2,679)	—
Comprehensive income	982,355	949,761	267,260
Net income attributable to redeemable noncontrolling interests	(230,653)	(201,469)	(41,553)
Comprehensive income attributable to redeemable noncontrolling interests	(230,653)	(201,469)	(41,553)
Comprehensive income attributable to RenaissanceRe	<u>\$ 751,702</u>	<u>\$ 748,292</u>	<u>\$ 225,707</u>

See accompanying notes to the consolidated financial statements

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Statements of Changes in Shareholders' Equity
For the years ended December 31, 2020, 2019 and 2018
(in thousands of United States Dollars)

	2020	2019	2018
Preference shares			
Balance – January 1	\$ 650,000	\$ 650,000	\$ 400,000
Issuance of shares (Note 12)	—	—	250,000
Repurchase of shares (Note 12)	(125,000)	—	—
Balance – December 31	525,000	650,000	650,000
Common shares			
Balance – January 1	44,148	42,207	40,024
Issuance of shares (Note 12)	6,777	1,739	1,947
Repurchase of shares (Note 12)	(406)	—	—
Exercise of options and issuance of restricted stock awards (Notes 12 and 17)	292	202	236
Balance – December 31	50,811	44,148	42,207
Additional paid-in capital			
Balance – January 1	568,277	296,099	37,355
Issuance of shares (Note 12)	1,088,730	248,259	248,053
Repurchase of shares (Note 12)	(62,215)	—	—
Offering expenses (Note 12)	—	—	(8,552)
Change in redeemable noncontrolling interest	(334)	(342)	837
Exercise of options and issuance of restricted stock awards (Notes 12 and 17)	28,748	24,261	18,406
Balance – December 31	1,623,206	568,277	296,099
Accumulated other comprehensive loss			
Balance – January 1	(1,939)	(1,433)	224
Change in net unrealized gains on investments, net of tax	606	2,173	(1,657)
Foreign currency translation adjustments, net of tax	(11,309)	(2,679)	—
Balance – December 31	(12,642)	(1,939)	(1,433)
Retained earnings			
Balance – January 1	4,710,881	4,058,207	3,913,772
Net income	993,058	950,267	268,917
Net income attributable to redeemable noncontrolling interests (Note 10)	(230,653)	(201,469)	(41,553)
Dividends on common shares (Note 12)	(68,490)	(59,368)	(52,841)
Dividends on preference shares (Note 12)	(30,923)	(36,756)	(30,088)
Balance – December 31	5,373,873	4,710,881	4,058,207
Total shareholders' equity	\$ 7,560,248	\$ 5,971,367	\$ 5,045,080

See accompanying notes to the consolidated financial statements

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Statements of Cash Flows
For the years ended December 31, 2020, 2019 and 2018
(in thousands of United States Dollars)

	2020	2019	2018
Cash flows provided by operating activities			
Net income	\$ 993,058	\$ 950,267	\$ 268,917
Adjustments to reconcile net income to net cash provided by operating activities			
Amortization, accretion and depreciation	16,652	(58,964)	123
Equity in undistributed losses (earnings) of other ventures	1,561	(762)	(3,772)
Net realized and unrealized (gains) losses on investments	(820,636)	(414,109)	183,168
Loss on sale of RenaissanceRe UK	30,242	—	—
Change in:			
Premiums receivable	(293,581)	(424,973)	(232,566)
Prepaid reinsurance premiums	(55,801)	(11,798)	(82,639)
Reinsurance recoverable	(138,361)	129,665	(785,591)
Deferred acquisition costs	30,442	118,676	(50,110)
Reserve for claims and claim expenses	1,155,615	900,562	995,863
Unearned premiums	232,949	51,343	238,412
Reinsurance balances payable	662,281	658,532	912,966
Other	178,314	238,756	(223,070)
Net cash provided by operating activities	1,992,735	2,137,195	1,221,701
Cash flows used in investing activities			
Proceeds from sales and maturities of fixed maturity investments trading	15,186,952	17,313,940	11,585,576
Purchases of fixed maturity investments trading	(16,836,538)	(17,919,343)	(12,489,972)
Net sales (purchases) of equity investments trading	829	(7,841)	14,156
Net purchases of short term investments	(581,473)	(1,900,741)	(1,436,389)
Net purchases of other investments	(216,760)	(202,878)	(199,475)
Net purchases of investments in other ventures	(3,698)	(2,717)	(21,473)
Return of investment from investment in other ventures	9,255	11,250	8,464
Net (purchases) sales of other assets	—	(4,108)	2,500
Net proceeds from sale of RenaissanceRe UK	136,744	—	—
Net purchase of TMR	—	(276,206)	—
Net cash used in investing activities	(2,304,689)	(2,988,644)	(2,536,613)
Cash flows provided by financing activities			
Dividends paid – RenaissanceRe common shares	(68,490)	(59,368)	(52,841)
Dividends paid – preference shares	(30,923)	(36,756)	(30,088)
RenaissanceRe common share repurchases	(62,621)	—	—
RenaissanceRe common share issuance	1,095,507	—	250,000
Issuance of debt, net of expenses	—	396,411	—
Repayment of debt	(250,000)	—	—
Redemption of preference shares	(125,000)	—	—
Issuance of preference shares, net of expenses	—	—	241,448
Net third-party redeemable noncontrolling interest share transactions	119,071	827,083	665,683
Taxes paid on withholding shares	(12,330)	(7,253)	(7,862)
Net cash provided by financing activities	665,214	1,120,117	1,066,340
Effect of exchange rate changes on foreign currency cash	4,485	2,478	(5,098)
Net increase (decrease) in cash and cash equivalents	357,745	271,146	(253,670)
Cash and cash equivalents, beginning of year	1,379,068	1,107,922	1,361,592
Cash and cash equivalents, end of year	\$ 1,736,813	\$ 1,379,068	\$ 1,107,922
Supplemental disclosure of cash flow information			
Income taxes paid	\$ 5,668	\$ 9,749	\$ 341
Interest paid	\$ 48,805	\$ 53,220	\$ 45,623

See accompanying notes to the consolidated financial statements

RENAISSANCERE HOLDINGS LTD. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2020

(unless otherwise noted, amounts in tables expressed in thousands of United States (“U.S.”) dollars, except per share amounts and percentages)

NOTE 1. ORGANIZATION

RenaissanceRe Holdings Ltd. (“RenaissanceRe” or the “Company”) was formed under the laws of Bermuda on June 7, 1993. Together with its wholly owned and majority-owned subsidiaries, joint ventures and managed funds, the Company provides property, casualty and specialty reinsurance and certain insurance solutions to its customers.

- Renaissance Reinsurance Ltd. (“Renaissance Reinsurance”), a Bermuda-domiciled reinsurance company, is the Company’s principal reinsurance subsidiary and provides property, casualty and specialty reinsurance coverages to insurers and reinsurers on a worldwide basis.
- Renaissance Reinsurance U.S. Inc. (“Renaissance Reinsurance U.S.”) is a reinsurance company domiciled in the state of Maryland that provides property, casualty and specialty reinsurance coverages to insurers and reinsurers, primarily in the Americas.
- RenaissanceRe Syndicate 1458 (“Syndicate 1458”) is the Company’s Lloyd’s syndicate. RenaissanceRe Corporate Capital (UK) Limited (“RenaissanceRe CCL”), a wholly owned subsidiary of RenaissanceRe, is Syndicate 1458’s sole corporate member. RenaissanceRe Syndicate Management Ltd. (“RSML”), a wholly owned subsidiary of RenaissanceRe, is the managing agent for Syndicate 1458.
- On March 22, 2019, the Company’s wholly owned subsidiary, RenaissanceRe Specialty Holdings (UK) Limited (“RenaissanceRe Specialty Holdings”), completed its previously announced purchase of all of the share capital of RenaissanceRe Europe AG (formerly known as Tokio Millennium Re AG), RenaissanceRe (UK) Limited (formerly known as Tokio Millennium Re (UK) Limited) (“RenaissanceRe UK”), and their respective subsidiaries (collectively, “TMR”) pursuant to a Stock Purchase Agreement by and among the Company, Tokio Marine & Nichido Fire Insurance Co. Ltd. (“Tokio”) and, with respect to certain sections only, Tokio Marine Holdings, Inc. entered into on October 30, 2018 (the “TMR Stock Purchase Agreement”) (the “TMR Stock Purchase”). TMR comprised the treaty reinsurance business of Tokio Marine Holdings, Inc. The results of operations of TMR from March 22, 2019, through December 31, 2019, are reflected in the Company’s results of operations for the year ended December 31, 2019. Refer to “Note 3. Acquisition of Tokio Millennium Re” for additional information regarding the TMR Stock Purchase. The Company sold RenaissanceRe UK, a U.K.-domiciled reinsurance company in run-off, to an investment vehicle managed by AXA Liabilities Managers, an affiliate of AXA XL, on August 18, 2020. Refer to “Note 21. Sale of RenaissanceRe UK” for additional information regarding the sale.
- RenaissanceRe Europe AG (“RREAG”), a Swiss-domiciled reinsurance company, which has branches in Australia, Bermuda, the U.K. and the U.S., provides property, casualty and specialty reinsurance coverages to insurers and reinsurers on a worldwide basis.
- RenaissanceRe Specialty U.S. Ltd. (“RenaissanceRe Specialty U.S.”), a Bermuda-domiciled insurer, which operates subject to U.S. federal income tax.
- DaVinci Reinsurance Ltd. (“DaVinci”), a wholly-owned subsidiary of DaVinciRe Holdings Ltd. (“DaVinciRe”), is a managed joint venture formed by the Company to principally write property catastrophe reinsurance and certain casualty and specialty reinsurance lines of business on a global basis.
- Top Layer Reinsurance Ltd. (“Top Layer Re”) is a managed joint venture formed by the Company to write high excess non-U.S. property catastrophe reinsurance.
- RenaissanceRe Underwriting Managers U.S. LLC, is licensed as a reinsurance intermediary broker in the State of Connecticut and underwrites specialty treaty reinsurance solutions on both a quota share and excess of loss basis on behalf of affiliates.

- Renaissance Underwriting Managers, Ltd. (“RUM”), a wholly owned subsidiary of RenaissanceRe, acts as exclusive underwriting manager for certain of our joint ventures or managed funds in return for fee-based income and profit participation.
- RenaissanceRe Fund Management Ltd. (“RFM”) is a wholly-owned Bermuda exempted company and the Company’s fund manager. RFM acts as the exclusive investment fund manager for several of the Company’s joint ventures or managed funds, in return for a management fee, a performance based incentive fee, or both. Fund Manager is registered as an Exempt Reporting Adviser with the SEC and serves as the investment adviser to third-party investors in the various private investment partnerships and insurance-related investment products offered by the Company.
- RenaissanceRe Medici Fund Ltd. (“Medici”) is an exempted company, incorporated under the laws of Bermuda and registered as an institutional fund. Medici invests, primarily on behalf of third-party investors, in various instruments that have returns primarily tied to property catastrophe risk.
- Upsilon RFO Re Ltd., formerly known as Upsilon Reinsurance II Ltd. (“Upsilon RFO”), a Bermuda domiciled special purpose insurer (“SPI”), is a managed fund formed by the Company principally to provide additional capacity to the worldwide aggregate and per-occurrence primary and retrocessional property catastrophe excess of loss market.
- RenaissanceRe Upsilon Fund Ltd., an exempted Bermuda segregated accounts company registered as a Class A Professional Fund provides a fund structure through which third-party investors can invest in reinsurance risk managed by the Company.
- Vermeer Reinsurance Ltd. (“Vermeer”), an exempted Bermuda reinsurer, provides capacity focused on risk remote layers in the U.S. property catastrophe market. The Company maintains a majority voting control of Vermeer, while Stichting Pensioenfondsof Zorg en Welzijn (“PFZW”), a pension fund represented by PGGM Vermogensbeheer B.V., a Dutch pension fund manager, retains economic benefits.
- Fibonacci Reinsurance Ltd. (“Fibonacci Re”), a Bermuda-domiciled SPI, provides collateralized capacity to Renaissance Reinsurance and its affiliates. Fibonacci Re raises capital from third-party investors and the Company, via private placements of participating notes which are listed on the Bermuda Stock Exchange.
- The Company and Reinsurance Group of America, Incorporated have engaged in an initiative (“Langhorne”) to source third-party capital to support reinsurers targeting large in-force life and annuity blocks. Langhorne Holdings LLC (“Langhorne Holdings”) was incorporated to own and manage certain reinsurance entities within Langhorne. Langhorne Partners LLC (“Langhorne Partners”) is the general partner for Langhorne and manages the third-parties investing in Langhorne Holdings.
- Mona Lisa Re Ltd. (“Mona Lisa Re”), a Bermuda domiciled SPI, provides reinsurance capacity to subsidiaries of RenaissanceRe, namely Renaissance Reinsurance and DaVinci, through reinsurance agreements which are collateralized and funded by Mona Lisa Re through the issuance of one or more series of principal-at-risk variable rate notes.
- Following the acquisition of TMR, the Company managed Shima Reinsurance Ltd. (“Shima Re”), Norwood Re Ltd. (“Norwood Re”) and Blizzard Re Ltd. (“Blizzard,” together with Shima Re and Norwood Re, the “TMR managed third-party capital vehicles”), which provided third-party investors with access to reinsurance risk. The TMR managed third-party capital vehicles no longer write new business. The Company ceased providing management services to Blizzard effective November 1, 2020, and Shima Re and Norwood Re effective December 1, 2020.

NOTE 2. SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

These consolidated financial statements have been prepared on the basis of accounting principles generally accepted in the United States (“GAAP”). All significant intercompany accounts and transactions have been eliminated from these statements.

Certain comparative information has been reclassified to conform to the current presentation.

USE OF ESTIMATES IN FINANCIAL STATEMENTS

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported and disclosed amounts 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. Actual results could differ materially from those estimates. The major estimates reflected in the Company's consolidated financial statements include, but are not limited to, the reserve for claims and claim expenses; reinsurance recoverable and premiums receivable, including provisions for reinsurance recoverable and premiums receivable to reflect expected credit losses; estimates of written and earned premiums; fair value, including the fair value of investments, financial instruments and derivatives; impairment charges; deferred acquisition costs and the value of business acquired ("VOBA") and the Company's deferred tax valuation allowance.

PREMIUMS AND RELATED EXPENSES

Premiums are recognized as income, net of any applicable reinsurance or retrocessional coverage purchased, over the terms of the related contracts and policies. Premiums written are based on contract and policy terms and include estimates based on information received from both insureds and ceding companies. Subsequent differences arising on such estimates are recorded in the period in which they are determined. Unearned premiums represent the portion of premiums written that relate to the unexpired terms of contracts and policies in force. Amounts are computed by pro rata methods based on statistical data or reports received from ceding companies. Reinstatement premiums are estimated after the occurrence of a significant loss and are recorded in accordance with the contract terms based upon paid losses and case reserves. Reinstatement premiums are earned when written.

Acquisition costs are incurred when a contract or policy is issued and only the costs directly related to the successful acquisition of new and renewal contract or policies are deferred and amortized over the same period in which the related premiums are earned. Acquisition costs consist principally of commissions, brokerage and premium tax expenses. Certain of our assumed contracts contain profit sharing provisions or adjustable commissions that are estimated based on the expected loss and loss adjustment expense on those contracts. Acquisition costs include accruals for such estimates of commissions and are shown net of commissions and profit commissions earned on ceded reinsurance. Deferred policy acquisition costs are limited to their estimated realizable value based on the related unearned premiums. Anticipated claims and claim expenses, based on historical and current experience, and anticipated investment income related to those premiums are considered in determining the recoverability of deferred acquisition costs.

CLAIMS AND CLAIM EXPENSES

The reserve for claims and claim expenses includes estimates for unpaid claims and claim expenses on reported losses as well as an estimate of losses incurred but not reported. The reserve is based on individual claims, case reserves and other reserve estimates reported by insureds and ceding companies as well as management estimates of ultimate losses. Inherent in the estimates of ultimate losses are expected trends in claim severity and frequency and other factors which could vary significantly as claims are settled. Also, the Company does not have the benefit of a significant amount of its own historical experience in certain casualty and specialty and insurance lines of business. Accordingly, the reserving for incurred losses in these lines of business could be subject to greater variability.

Ultimate losses may vary materially from the amounts provided in the consolidated financial statements. These estimates are reviewed regularly and, as experience develops and new information becomes known, the reserves are adjusted as necessary. Such adjustments, if any, are reflected in the consolidated statements of operations in the period in which they become known and are accounted for as changes in estimates.

REINSURANCE

Amounts recoverable from reinsurers are estimated in a manner consistent with the claim liability associated with the reinsured policies. For multi-year retrospectively rated contracts, the Company accrues amounts (either assets or liabilities) that are due to or from assuming companies based on estimated contract experience. If the Company determines that adjustments to earlier estimates are appropriate, such adjustments are recorded in the period in which they are determined. Reinsurance recoverable on dual trigger reinsurance contracts require the Company to estimate its ultimate losses applicable to these contracts as well as estimate the ultimate amount of insured industry losses that will be reported by the applicable statistical reporting agency, as per the contract terms. Amounts recoverable from reinsurers are recorded net of a provision for current expected credit losses to reflect expected credit losses.

Assumed and ceded reinsurance contracts that lack significant transfer of risk are treated as deposits.

Certain assumed and ceded reinsurance contracts that do not meet all of the criteria to be accounted for as reinsurance in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic *Financial Services - Insurance* have been accounted for at fair value under the fair value option in accordance with FASB ASC Topic *Financial Instruments*.

INVESTMENTS, CASH AND CASH EQUIVALENTS

Fixed Maturity Investments

Investments in fixed maturities are classified as trading and are reported at fair value. Investment transactions are recorded on the trade date with balances pending settlement reflected in the balance sheet as a receivable for investments sold or a payable for investments purchased. Net investment income includes interest and dividend income together with amortization of market premiums and discounts and is net of investment management and custody fees. The amortization of premium and accretion of discount for fixed maturity securities is computed using the effective yield method. For mortgage-backed securities and other holdings for which there is prepayment risk, prepayment assumptions are evaluated quarterly and revised as necessary. Any adjustments required due to the change in effective yields and maturities are recognized on a prospective basis through yield adjustments. Fair values of investments are based on quoted market prices, or when such prices are not available, by reference to broker or underwriter bid indications and/or internal pricing valuation techniques. The net unrealized appreciation or depreciation on fixed maturity investments trading is included in net realized and unrealized gains (losses) on investments in the consolidated statements of operations. Realized gains or losses on the sale of investments are determined on the basis of the first in first out cost method.

Short Term Investments

Short term investments, which are managed as part of the Company's investment portfolio and have a maturity of one year or less when purchased, are carried at fair value. The net unrealized appreciation or depreciation on short term investments is included in net realized and unrealized gains (losses) on investments in the consolidated statements of operations.

Equity Investments, Classified as Trading

Equity investments are accounted for at fair value in accordance with FASB ASC Topic *Financial Instruments*. Fair values are primarily priced by pricing services, reflecting the closing price quoted for the final trading day of the period. Net investment income includes dividend income and the net realized and unrealized appreciation or depreciation on equity investments is included in net realized and unrealized gains (losses) on investments in the consolidated statements of operations.

Other Investments

The Company accounts for its other investments at fair value in accordance with FASB ASC Topic *Financial Instruments* with interest, dividend income and income distributions included in net investment income. Realized and unrealized gains and losses on other investments are included in net realized and unrealized gains (losses) on investments. The fair value of certain of the Company's fund investments, which principally include private equity investments, senior secured bank loan funds and hedge funds, is recorded

on its balance sheet in other investments, and is generally established on the basis of the net valuation criteria established by the managers of such investments, if applicable. The net valuation criteria established by the managers of such investments is established in accordance with the governing documents of such investments. Certain of the Company's fund managers, fund administrators, or both, are unable to provide final fund valuations as of the Company's current reporting date. The typical reporting lag experienced by the Company to receive a final net asset value report is one month for hedge funds and senior secured bank loan funds and three months for private equity investments, although, in the past, in respect of certain of the Company's private equity investments, the Company has on occasion experienced delays of up to six months at year end, as the private equity investments typically complete their respective year-end audits before releasing their final net asset value statements.

In circumstances where there is a reporting lag between the current period end reporting date and the reporting date of the latest fund valuation, the Company estimates the fair value of these funds by starting with the prior month or quarter-end fund valuations, adjusting these valuations for actual capital calls, redemptions or distributions, as well as the impact of changes in foreign currency exchange rates, and then estimating the return for the current period. In circumstances in which the Company estimates the return for the current period, all information available to the Company is utilized. This principally includes using preliminary estimates reported to the Company by its fund managers, estimating returns based on the performance of broad market indices or other valuation methods, where necessary. Actual final fund valuations may differ, perhaps materially so, from the Company's estimates and these differences are recorded in the Company's statement of operations in the period in which they are reported to the Company as a change in estimate.

The Company's other investments also include investments in catastrophe bonds which are recorded at fair value and the fair value is based on broker or underwriter bid indications.

Investments in Other Ventures, Under Equity Method

Investments in which the Company has significant influence over the operating and financial policies of the investee are classified as investments in other ventures, under equity method, and are accounted for under the equity method of accounting. Under this method, the Company records its proportionate share of income or loss from such investments in its results for the period. If the Company's proportionate share of loss from such investment is in excess of the carrying value of such investment, the company discontinues applying the equity method when the carrying value of the investment is reduced to zero, unless the Company has committed to provide further financial support to the investee. If the investee subsequently reports net income, the Company resumes applying the equity method only after its proportionate share of net income equals the proportionate share of net losses not recognized during the period the equity method was suspended. Any decline in value of investments in other ventures, under equity method considered by management to be other-than-temporary is charged to income in the period in which it is determined.

Cash and Cash Equivalents

Cash equivalents include money market instruments with a maturity of ninety days or less when purchased.

STOCK INCENTIVE COMPENSATION

The Company is authorized to issue restricted stock awards and units, performance shares, stock options and other equity-based awards to its employees and directors. The fair value of the compensation cost is measured at the grant date and expensed over the period for which the employee or director is required to provide services in exchange for the award.

In addition, the Company is authorized to issue cash settled restricted stock units ("CSRSU") to its employees. The fair value of CSRSUs is determined using the fair market value of RenaissanceRe common shares at the end of each reporting period and is expensed over the period for which the employee is required to provide service in exchange for the award. The fair value of these awards is recorded on the Company's consolidated balance sheet as a liability as it is expensed until the point payment is made to the employee.

The Company has elected to recognize forfeitures as they occur rather than estimating service-based forfeitures over the requisite service period.

DERIVATIVES

From time to time, the Company enters into derivative instruments such as futures, options, swaps, forward contracts and other derivative contracts primarily to manage its foreign currency exposure, obtain exposure to a particular financial market, for yield enhancement, or for trading and to assume risk. The Company accounts for its derivatives in accordance with FASB ASC Topic *Derivatives and Hedging*, which requires all derivatives to be recorded at fair value on the Company's balance sheet as either assets or liabilities, depending on their rights or obligations, with changes in fair value reflected in current earnings. Commencing in 2019, the Company elected to adopt hedge accounting for certain of its derivative instruments used as hedges of a net investment in a foreign operation, as discussed below. The fair value of the Company's derivatives is estimated by reference to quoted prices or broker quotes, where available, or in the absence of quoted prices or broker quotes, the use of industry or internal valuation models.

Hedges of a Net Investment in a Foreign Operation

Changes in the fair value of derivative instruments used to hedge the net investment in a foreign operation, to the extent effective as a hedge, are recorded as a component of accumulated other comprehensive income (loss) in foreign currency translation adjustments, net of tax. Cumulative changes in fair value recorded in accumulated other comprehensive income (loss) are reclassified into earnings upon the sale, or complete or substantially complete liquidation, of the foreign operation. Any hedge ineffectiveness is recorded immediately in current period earnings as net foreign exchange gains (losses).

Hedge Documentation and Effectiveness Testing

To qualify for hedge accounting treatment, a derivative must be highly effective in mitigating the designated changes in value or cash flow of the hedged item. At the inception of a hedge, the Company formally documents relationships between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking each hedge transaction. The documentation process includes linking derivatives that are designated as net investment hedges to specific assets or liabilities on the consolidated balance sheet. The Company also formally assesses, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in the net investment in a foreign operation. The Company will discontinue hedge accounting prospectively if it determines that the derivative is no longer highly effective in offsetting changes in the net investment in a foreign operation, the derivative is no longer designated as a hedging instrument, or the derivative expires or is sold, terminated or exercised. If hedge accounting is discontinued, the derivative continues to be carried at fair value on the consolidated balance sheet with changes in its fair value recognized in current period earnings through net realized and unrealized gains (losses) on investments.

FAIR VALUE

The Company accounts for certain of its assets and liabilities at fair value in accordance with FASB ASC Topic *Fair Value Measurements and Disclosures*. The Company recognizes the change in unrealized gains and losses arising from changes in fair value in its statements of operations.

BUSINESS COMBINATIONS, GOODWILL AND OTHER INTANGIBLE ASSETS

The Company accounts for business combinations in accordance with FASB ASC Topic *Business Combinations*, and goodwill and other intangible assets that arise from business combinations in accordance with FASB ASC Topic *Intangibles – Goodwill and Other*. A purchase price that is in excess of the fair value of the net assets acquired arising from a business combination is recorded as goodwill, and is not amortized. Other intangible assets with a finite life are amortized over the estimated useful life of the asset. Other intangible assets with an indefinite useful life are not amortized.

Goodwill and other indefinite life intangible assets are tested for impairment on an annual basis or more frequently if events or changes in circumstances indicate that the carrying amount may not be recoverable. Finite life intangible assets are reviewed for indicators of impairment on an annual basis or more frequently if events or changes in circumstances indicate that the carrying amount may not be recoverable, and tested for impairment if appropriate. For purposes of the annual impairment evaluation, goodwill is assigned to the applicable reporting unit of the acquired entities giving rise to the goodwill. Goodwill and other intangible

assets recorded in connection with investments accounted for under the equity method, are recorded as “Investments in other ventures, under equity method” on the Company’s consolidated balance sheets.

The Company has established the beginning of the fourth quarter as the date for performing its annual impairment tests. The Company has elected to use the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. Under this option, the Company is not required to calculate the fair value of a reporting unit unless the Company determines, based on its qualitative assessment, that it is more likely than not that a reporting unit’s fair value is less than its carrying amount. If goodwill or other intangible assets are impaired, they are written down to their estimated fair value with a corresponding expense reflected in the Company’s consolidated statements of operations.

The Company initially recorded VOBA to reflect the establishment of the value of business acquired asset, which represents the estimated present value of the expected underwriting profit within the unearned premiums liability, net of reinsurance, less costs to service the related policies and a risk premium. VOBA is derived using, among other things, estimated loss ratios by line of business to calculate the underwriting profit, weighted average cost of capital, risk premium and expected payout patterns. The adjustment for VOBA was amortized to acquisition expenses over approximately two years, as the contracts for business in-force as of the acquisition date expired.

NONCONTROLLING INTERESTS

The Company accounts for redeemable noncontrolling interests in the mezzanine section of the Company’s consolidated balance sheet in accordance with United States Securities and Exchange Commission (“SEC”) guidance which is applicable to SEC registrants. The share classes related to the redeemable noncontrolling interest portion of the issuer are accounted for in accordance with SEC guidance, which requires that shares not required to be accounted for in accordance with FASB ASC Topic *Distinguishing Liabilities from Equity*, and having redemption features that are not solely within the control of the issuer, to be classified outside of permanent equity in the mezzanine section of the balance sheet. The SEC guidance does not impact the accounting for redeemable noncontrolling interest on the consolidated statements of operations; therefore, the provisions of FASB ASC Topic *Consolidation* with respect to the consolidated statements of operations still apply, and net income attributable to redeemable noncontrolling interests is presented separately in the Company’s consolidated statements of operations.

VARIABLE INTEREST ENTITIES

The Company accounts for variable interest entities (“VIEs”) in accordance with FASB ASC Topic *Consolidation*, which requires the consolidation of all VIEs by the primary beneficiary, that being the investor that has the power to direct the activities of the VIE and that will absorb a portion of the VIE’s expected losses or residual returns that could potentially be significant to the VIE. When the Company determines it has a variable interest in a VIE, it determines whether it is the primary beneficiary of that VIE by performing an analysis that principally considers: (i) the VIE’s purpose and design, including the risks the VIE was designed to create and pass through to its variable interest holders; (ii) the VIE’s capital structure; (iii) the terms between the VIE and its variable interest holders and other parties involved with the VIE; (iv) which variable interest holders have the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance; (v) which variable interest holders have the obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE; and (vi) related party relationships. The Company reassesses its determination of whether the Company is the primary beneficiary of a VIE upon changes in facts and circumstances that could potentially alter the Company’s assessment.

EARNINGS PER SHARE

The Company calculates earnings per share in accordance with FASB ASC Topic *Earnings per Share*. Basic earnings per share are based on weighted average common shares and exclude any dilutive effects of options and restricted stock. Diluted earnings per share assumes the exercise of all dilutive stock options and restricted stock grants.

The two-class method is used to determine earnings per share based on dividends declared on common shares and participating securities (i.e., distributed earnings) and participation rights of participating securities in any undistributed earnings. Each unvested restricted share granted by the Company is

considered a participating security and the Company uses the two-class method to calculate its net income available to RenaissanceRe common shareholders per common share – basic and diluted.

FOREIGN EXCHANGE

Monetary assets and liabilities denominated in a currency other than the functional currency of the Company's subsidiaries in which those monetary assets and liabilities reside are revalued into such subsidiary's functional currency at the prevailing exchange rate on the balance sheet date. Revenues and expenses denominated in a currency other than the functional currency of the Company's subsidiaries, are valued at the exchange rate on the date on which the underlying revenue or expense transaction occurred. The net effect of these revaluation adjustments are recognized in the Company's consolidated statement of operations as part of net foreign exchange gains (losses).

The Company's functional currency is the U.S. dollar. Certain of the Company's subsidiaries have a functional currency other than the U.S. dollar. Assets and liabilities of foreign operations whose functional currency is not the U.S. dollar are translated into the Company's U.S. dollar reporting currency at prevailing balance sheet-date exchange rates, while revenue and expenses of such foreign operations are translated into the Company's U.S. dollar functional currency at monthly average exchange rates during the year. The net effect of these translation adjustments, as well as any gains or losses on intercompany balances for which settlement is not planned or anticipated in the foreseeable future, net of applicable deferred income taxes, is included in the Company's consolidated balance sheet as currency translation adjustments and reflected within accumulated other comprehensive income (loss).

TAXATION

Income taxes have been provided for in accordance with the provisions of FASB ASC Topic *Income Taxes*. Deferred tax assets and liabilities result from temporary differences between the amounts recorded in the consolidated financial statements and the tax basis of the Company's assets and liabilities. Such temporary differences are primarily due to net operating loss carryforwards and GAAP versus tax basis accounting differences relating to interest expense, underwriting results, accrued expenses and investments. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance against net deferred tax assets is recorded if it is more likely than not that all, or some portion, of the benefits related to net deferred tax assets will not be realized.

Uncertain tax positions are also accounted for in accordance with FASB ASC Topic *Income Taxes*. Uncertain tax positions must meet a more likely than not recognition threshold to be recognized.

RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued ASU No. 2016-13, Measurement of Credit Losses on Financial Instruments ("ASU 2016-13"). ASU 2016-13 modifies the recognition of credit losses by replacing the incurred loss impairment methodology with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 is applicable to financial assets such as loans, debt securities, trade receivables, off-balance sheet credit exposures, reinsurance receivables, and other financial assets that have the contractual right to receive cash. The measurement of expected credit losses is based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. The Company's invested assets are measured at fair value through net income, and therefore those invested assets were not impacted by the adoption of ASU 2016-13. The Company has other financial assets, such as premiums receivable and reinsurance recoverable, that were not materially impacted by the adoption of ASU 2016-13. ASU 2016-13 became effective for public business entities that are SEC filers for annual and interim periods beginning after December 15, 2019. Accordingly, the Company adopted ASU 2016-13 effective January 1, 2020. The adoption of ASU 2016-13 did not have a material impact on the Company's consolidated statements of operations and financial position, and as a result, there was no cumulative effect adjustment to opening retained earnings as of January 1, 2020.

Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement

In August 2018, the FASB issued ASU No. 2018-13, *Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement* (“ASU 2018-13”). The ASU 2018-13 modifies the disclosure requirements of fair value measurements as part of the disclosure framework project with the objective to improve the effectiveness of disclosures in the notes to the financial statements. ASU 2018-13 allows for removal of the amount and reasons for transfer between Level 1 and Level 2 of the fair value hierarchy; the policy for transfers between levels; and the valuation processes for Level 3 fair value measurements. ASU 2018-13 became effective for all entities for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years. Accordingly, the Company adopted ASU 2018-13 effective January 1, 2020. Since ASU 2018-13 is disclosure-related only, it did not have an impact on the Company’s consolidated statements of operations and financial position.

Simplifying the Test for Goodwill Impairment

In January 2017, the FASB issued ASU No. 2017-04, *Simplifying the Test for Goodwill Impairment* (“ASU 2017-04”). Among other things, ASU 2017-04 requires the following: (1) the elimination of step two of the goodwill impairment test; entities will no longer utilize the implied fair value of their assets and liabilities for purposes of testing goodwill for impairment, (2) the quantitative portion of the goodwill impairment test will be performed by comparing the fair value of a reporting unit with its carrying amount; an impairment charge is to be recognized for the excess of carrying amount over fair value, but only to the extent of the amount of goodwill allocated to that reporting unit, and (3) foreign currency translation adjustments are not to be allocated to a reporting unit from an entity’s accumulated other comprehensive income (loss); the reporting unit’s carrying amount should include only the currently translated balances of the assets and liabilities assigned to the reporting unit. ASU 2017-04 became effective for public business entities that are SEC filers for annual periods, or any interim goodwill impairment tests in annual periods, beginning after December 15, 2019. Accordingly, the Company adopted ASU 2017-04 effective January 1, 2020. The adoption of ASU 2017-04 did not have a material impact on the Company’s consolidated statements of operations and financial position.

Leases

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, *Leases* and subsequently issued a number of other ASUs to amend the guidance, each ultimately reflected in FASB ASC Topic *Leases*. FASB ASC Topic *Leases* requires, among other items, lessees to recognize lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under the previous guidance. FASB ASC Topic *Leases* became effective for public business entities for annual and interim periods beginning after December 15, 2018. The Company has adopted FASB ASC Topic *Leases* through the application of the modified retrospective transition approach. In addition, the Company employed certain practical expedients permitted under the guidance and utilized its incremental borrowing rate in determining the present value of lease payments, not yet paid. The adoption of this guidance did not have a material impact on the Company’s consolidated statements of operations and financial position. The Company determined there was no material impact and as a result, there was no cumulative effect adjustment to opening retained earnings as of January 1, 2019.

Intra-Entity Transfers of Assets Other Than Inventory

In October 2016, the FASB issued ASU No. 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory* (“ASU 2016-16”). ASU 2016-16 requires entities to recognize the income tax consequences of intra-entity transfers of assets other than inventory when the transfers occur; this is a change from current guidance which prohibits the recognition of current and deferred income taxes until the underlying assets have been sold to outside entities. ASU 2016-16 became effective for public business entities for annual and interim periods beginning after December 15, 2018. The adoption of this guidance did not have a material impact on the Company’s consolidated statements of operations and financial position.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS NOT YET ADOPTED

Simplifying the Accounting for Income Taxes

In December 2019, the FASB issued ASU No. 2019-12, Simplifying the Accounting for Income Taxes ("ASU 2019-12"). Among other things, ASU 2019-12 eliminates certain exceptions for recognizing deferred taxes for investments, performing intra-period tax allocation and calculating income taxes in interim periods. ASU 2019-12 also clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. ASU 2019-12 is effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Early adoption is permitted. The Company is currently evaluating the impact of this guidance; however, it is not expected to have a material impact on the Company's consolidated statements of operations and financial position.

NOTE 3. ACQUISITION OF TOKIO MILLENNIUM RE

Overview

The aggregate consideration for the TMR Stock Purchase, which closed on March 22, 2019, was \$1.6 billion, consisting of cash, RenaissanceRe common shares and a special dividend from TMR, as described in more detail below. The aggregate consideration paid at closing for the TMR Stock Purchase was based on the closing tangible book value of TMR, subject to a post-closing adjustment under the terms of the TMR Stock Purchase Agreement. The parties determined that no closing adjustment was required.

In connection with the closing of the TMR Stock Purchase, Tokio, RREAG and RenaissanceRe UK entered into a reserve development agreement whereby RREAG and RenaissanceRe UK agreed to cede to Tokio, and Tokio agreed to indemnify and reimburse RREAG and RenaissanceRe UK for, substantially all of RREAG and RenaissanceRe UK's adverse development on stated reserves at time of the closing, including unearned premium reserves, subject to certain terms and conditions. The reserve development agreement provides the Company with indemnification on stated reserves, including unearned premium reserves, for RREAG and RenaissanceRe UK, on a whole-account basis, and takes into consideration adverse performance across the Company's reportable segments. To the extent the combined performance of acquired reserves for claims and claim expenses or unearned premiums is worse than expected on an aggregate basis across reportable segments, the Company is indemnified under the terms of the reserve development agreement and would expect to collect under the reserve development agreement.

At closing, RREAG and Tokio entered into a retrocessional agreement pursuant to which RREAG ceded to Tokio all of its liabilities arising from certain stop loss reinsurance contracts RREAG entered into with third-party capital partners which were either in force as of the closing date or which incept prior to December 31, 2021.

The Company recorded \$9.1 million of corporate expenses associated with the acquisition of TMR during 2020 (2019 - \$49.7 million). Included in these expenses are compensation, transaction and integration-related costs.

Purchase Price

The Company's total purchase price for TMR was calculated as follows:

<i>Special Dividend</i>		
Special Dividend paid to common shareholders of Tokio and holders of Tokio equity awards		\$ 500,000
<i>RenaissanceRe Common Shares</i>		
Common shares issued by RenaissanceRe to Tokio	1,739,071	
Common share price of RenaissanceRe (1)	\$ 143.75	
Market value of RenaissanceRe common shares issued by RenaissanceRe to Tokio		249,998
<i>Cash Consideration</i>		
Cash consideration paid by RenaissanceRe as acquisition consideration		813,595
Total purchase price		1,563,593
Less: Special Dividend paid to Tokio		(500,000)
Net purchase price		\$ 1,063,593

(1) RenaissanceRe common share price was based on the 30-day trailing volume weighted average price of \$143.7539 as of market close on March 15, 2019, which approximates fair value.

Fair Value of Net Assets Acquired and Liabilities Assumed

The purchase price was allocated to the acquired assets and liabilities of the Company based on estimated fair values on March 22, 2019, the date the transaction closed, as detailed below. During the quarter ended March 31, 2019, the Company recognized goodwill of \$13.1 million, based on foreign exchange rates on March 22, 2019, attributable to the excess of the purchase price over the fair value of the net assets of TMR. The Company recognized identifiable finite lived intangible assets of \$11.2 million, which will be amortized over a weighted average period of 10.5 years, identifiable indefinite lived intangible assets of \$6.8 million, and certain other adjustments to the fair values of the assets acquired, liabilities assumed and shareholders' equity of TMR at March 22, 2019, based on foreign exchange rates on March 22, 2019, as summarized in the table below:

Shareholders' equity of TMR at March 22, 2019	\$ 1,032,961
Adjustments for fair value, by applicable balance sheet caption:	
Net deferred acquisition costs and value of business acquired	(56,788)
Net reserve for claims and claim expenses	67,782
Goodwill and intangible assets at March 22, 2019 of TMR	(6,569)
Total adjustments for fair value by applicable balance sheet caption before tax impact	4,425
Other assets - net deferred tax liability related to fair value adjustments and value of business acquired	(2,606)
Total adjustments for fair value by applicable balance sheet caption, net of tax	1,819
Adjustments for fair value of the identifiable intangible assets:	
Identifiable indefinite lived intangible assets (insurance licenses)	6,800
Identifiable finite lived intangible assets (top broker relationships and renewal rights)	11,200
Identifiable intangible assets before tax impact	18,000
Other assets - deferred tax liability on identifiable intangible assets	(2,281)
Total adjustments for fair value of the identifiable intangible assets and value of business acquired, net of tax	15,719
Total adjustments for fair value by applicable balance sheet caption, identifiable intangible assets and value of business acquired, net of tax	17,538
Shareholders' equity of TMR at fair value	1,050,499
Total net purchase price paid by RenaissanceRe	1,063,593
Excess purchase price over the fair value of net assets acquired assigned to goodwill	\$ 13,094

An explanation of the significant fair value adjustments and related future amortization is as follows:

- Net deferred acquisition costs and VOBA - to reflect the elimination of TMR's net deferred acquisition costs, partially offset by the establishment of the value of business acquired asset, which represents the present value of the expected underwriting profit within the unearned premiums liability, net of reinsurance, less costs to service the related policies and a risk premium. The adjustment for VOBA will be amortized to acquisition expenses over approximately two years, as the contracts for business in-force as of the acquisition date expire. VOBA at March 22, 2019 was \$287.6 million;
- Reserve for claims and claim expenses - to reflect a decrease related to the present value of the net unpaid claims and claim expenses based on the estimated payout pattern, partially offset by an increase in net claims and claim expenses related to the estimated market based risk margin. The risk margin represents the estimated cost of capital required by a market participant to assume the net claims and claim expenses. This will be amortized using the projected discount and risk margin patterns of the net claims and claims expenses as of the acquisition date;
- Identifiable indefinite lived and finite lived intangible assets - to establish the fair value of identifiable intangible assets related to the acquisition of TMR described in detail below; and

- Other assets - to reflect the net deferred tax liability on identifiable intangible assets.

Identifiable intangible assets consisted of the following and are included in goodwill and other intangible assets on the Company's consolidated balance sheet:

	Amount	Economic Useful Life
Top broker relationships	\$ 10,000	10.0 years
Renewal rights	1,200	15.0 years
Insurance licenses	6,800	Indefinite
Gross identifiable intangible assets related to the acquisition of TMR, at March 22, 2019	18,000	
Accumulated amortization (from March 22, 2019 through December 31, 2020), net of foreign exchange	1,715	
Impairment loss on insurance licenses	6,800	
Net identifiable intangible assets related to the acquisition of TMR at December 31, 2020	<u>\$ 9,485</u>	

An explanation of the identifiable intangible assets is as follows:

- Top broker relationships - the value of TMR's relationships with their top four brokers (Marsh & McLennan Companies, Inc., Aon plc, Willis Group Holdings Public Limited Company and Jardine Lloyd Thompson Group plc.) after taking into consideration the expectation of the renewal of these relationships and the associated expenses. These will be amortized on a straight-line basis over the economic useful life as of the acquisition date;
- Renewal rights - the value of policy renewal rights after taking into consideration written premiums on assumed retention ratios and the insurance cash flows and the associated equity cash flows from these renewal policies over the expected life of the renewals. These will be amortized on a straight-line basis over the economic useful life as of the acquisition date; and
- Insurance licenses - the value of acquired insurance licenses, which provide the ability to write reinsurance in all 50 states of the U.S. and the District of Columbia. During the year ended December 31, 2020, the Company recorded an impairment of \$6.8 million related to the insurance licenses. See "Note 4. Goodwill and Other Intangible Assets" in the Company's "Notes to the Consolidated Financial Statements" for additional information.

As part of the allocation of the purchase price, included in the adjustment to other assets in the table above is a deferred tax liability of \$2.3 million related to the estimated fair value of the intangible assets recorded, as well as a net deferred tax liability of \$2.6 million related to certain other adjustments to the fair values of the assets acquired, VOBA, liabilities assumed and shareholders' equity. Other net deferred tax liabilities recorded primarily relate to differences between financial reporting and tax bases of the acquired assets and liabilities as of the acquisition date, March 22, 2019. The Company estimates that none of the goodwill that was recorded will be deductible for income tax purposes.

Financial Results

The following table summarizes the net contribution from the acquisition of TMR since March 22, 2019 that was included in the Company's consolidated statements of operations and comprehensive income for the year ended December 31, 2019. Operating activities of TMR from the acquisition date, March 22, 2019, through December 31, 2019 are included in the Company's consolidated statements of operations for the year ended December 31, 2019.

The unaudited net contribution of the acquisition and integration of TMR is provided for informational purposes only and is not necessarily, and should not be assumed to be, an indication of the results that may be achieved in the future. These results are not used as a part of management's analysis of the financial performance of the Company's business. These results primarily reflect items recorded directly by TMR through December 31, 2019, including: 1) net earned premium and net underwriting income on the in-force portfolio acquired with the acquisition of TMR and previously retained on TMR entities' balance sheets; 2) net earned premium and net underwriting income for those contracts which renewed post-acquisition on

one of the acquired TMR entities' balance sheets; 3) net investment income and net realized and unrealized gains recorded directly by TMR; and 4) certain direct costs incurred directly by TMR. In addition, these results, where possible, were adjusted for transaction and integration related costs incurred by the Company. However, these results do not reflect on-going operating costs incurred by the Company in supporting TMR unless such costs were incurred directly by TMR. These results also do not give consideration to the impact of possible revenue enhancements, expense efficiencies, synergies or asset dispositions that may be achieved in the future. These results involve significant estimates and are not indicative of the future results of the acquired TMR entities which have been, and will continue to be impacted by potential changes in targeted business mix, investment management strategies, and synergies recognized from changes in the combined entity's operating structure, as well as the impact of changes in other business and capital management strategies.

Since the acquisition date, a growing number of underlying policies have been underwritten onto different legal entities, staffing has been allocated to new activities, and reinsurance has been purchased to cover combined risks, only some of which would have been reflected in the underlying legacy TMR results. As a result, for the year ended December 31, 2020, it is impracticable to produce summarized financial results, and any such information would not be indicative of the results of the acquired TMR entities, given the significant estimates involved and the nature and pace of the integration activities, which were substantially completed in 2019.

	Year ended December 31, 2019 (1)
Total revenues	\$ 922,727
Net income available to RenaissanceRe common shareholders (2)	\$ 99,169

(1) Includes the net contribution from the acquisition of TMR since March 22, 2019 that has been included in the Company's consolidated statements of operations and comprehensive income through December 31, 2019.

(2) Includes \$49.7 million of corporate expenses associated with the acquisition and integration of TMR for the year ended December 31, 2019.

Taxation

At the date of acquisition and in conjunction with the acquisition of TMR, the Company established a net deferred tax liability of \$5.7 million and recorded a valuation allowance against TMR's deferred tax assets of \$35.7 million in its consolidated financial statements. A predominant amount of the valuation allowance related to the U.S. operations of TMR was recorded by TMR prior to the acquisition.

Supplemental Pro Forma Information

The following table presents unaudited pro forma consolidated financial information for the years ended December 31, 2019 and 2018, respectively, and assumes the acquisition of TMR occurred on January 1, 2018. The unaudited pro forma consolidated financial information is provided for informational purposes only and is not necessarily, and should not be assumed to be, an indication of the results that would have been achieved had the transaction been completed as of January 1, 2018 or that may be achieved in the future. The unaudited pro forma consolidated financial information does not give consideration to the impact of possible revenue enhancements, expense efficiencies, synergies or asset dispositions that may result from the acquisition of TMR. In addition, unaudited pro forma consolidated financial information does not include the effects of costs associated with any restructuring or integration activities resulting from the acquisition of TMR, as they are nonrecurring.

<u>Year ended December 31,</u>	<u>2019</u>	<u>2018</u>
Total revenues	\$ 4,542,979	\$ 3,338,903
Net income available to RenaissanceRe common shareholders	\$ 768,719	\$ 281,974

Among other adjustments, and in addition to the fair value adjustments and recognition of goodwill, VOBA and identifiable intangible assets noted above, other material nonrecurring pro forma adjustments directly attributable to the acquisition of TMR principally included certain adjustments to recognize transaction

related costs, align accounting policies, and amortize fair value adjustments, VOBA, and identifiable definite lived intangible assets, net of related tax impacts.

Defined Benefit Pension Plan

The RREAG Group entities have a contributory defined benefit pension plan for certain employees, which was not material to RenaissanceRe's results of operations, financial condition or cash flows for the year ended December 31, 2020.

The plan offers mandatory benefits as prescribed by the applicable law, as well as voluntary benefits. These mandatory benefits include guarantees regarding the level of interest paid annually on accrued pension savings. The RREAG Group entities and the members of the plan contribute a defined percentage of salary to the pension arrangement and credit accumulation is granted on these contributions. At retirement, the accumulated contributions are converted into a pension. A full independent actuarial valuation is prepared annually.

At December 31, 2020, the net balance sheet liability was \$6.4 million, comprising \$20.1 million of projected benefit obligation and \$13.6 million of plan assets at fair value (2019 - \$6.5 million, \$20.4 million and \$13.9 million, respectively).

NOTE 4. GOODWILL AND OTHER INTANGIBLE ASSETS

The following tables show an analysis of goodwill and other intangible assets included in goodwill and other intangible assets on the Company's consolidated balance sheets:

At December 31,	Goodwill and Other Intangible Assets	
	2020	2019
Goodwill, net	\$ 211,013	\$ 210,665
Other intangible assets, net	38,628	51,561
Total goodwill and other intangible assets	\$ 249,641	\$ 262,226

Included in goodwill and other intangible assets on the Company's consolidated balance sheet at December 31, 2020 was gross goodwill of \$213.3 million (2019 - \$213.0 million, 2018 - \$199.9 million). Included in goodwill, net at December 31, 2020 was accumulated impairment losses of \$2.3 million (2019 - \$2.3 million).

In addition, the Company has also recorded goodwill and other intangible assets included in investments in other ventures, under equity method on the Company's consolidated balance sheets:

At December 31,	Goodwill and Other Intangible Assets Included in Investments in Other Ventures, Under Equity Method	
	2020	2019
Goodwill, net	\$ 10,598	\$ 10,598
Other intangible assets, net	12,368	14,326
Total goodwill and other intangible assets	\$ 22,966	\$ 24,924

Included in Investments and other ventures, under equity method on the Company's consolidated balance sheet at December 31, 2020 was gross goodwill of \$15.1 million (2019 - \$15.1 million, 2018 - \$15.1 million). Included in goodwill, net at December 31, 2020 was accumulated impairment losses of \$4.5 million (2019 - \$4.5 million).

The following table shows a roll forward of goodwill included in goodwill and other intangible assets and goodwill included in investments in other ventures, under equity method on the Company's consolidated balance sheets:

	Goodwill	
	Goodwill and Other Intangible Assets	Goodwill and Other Intangible Assets Included in Investments in Other Ventures, Under Equity Method
Balance at December 31, 2018, net	\$ 197,590	\$ 10,598
Acquired	13,094	—
Foreign currency translation	(19)	—
Balance at December 31, 2019, net	210,665	10,598
Foreign currency translation	348	—
Balance at December 31, 2020, net	\$ 211,013	\$ 10,598

The gross carrying value, accumulated amortization and accumulated impairment losses by major category of other intangible assets included in goodwill and other intangible assets and investments in other ventures, under equity method on the Company's consolidated balance sheets are shown below:

	Other Intangible Assets			
	Gross Carrying Value	Accumulated Amortization	Accumulated Impairment Losses	Net
At December 31, 2020				
Customer relationships and customer lists	\$ 108,798	\$ (76,118)	\$ (1,403)	\$ 31,277
Licenses (1)	26,214	—	(6,800)	19,414
Value of business acquired	20,200	(20,200)	—	—
Software	12,230	(12,230)	—	—
Patents and intellectual property	4,500	(1,875)	(2,625)	—
Covenants not-to-compete	4,030	(4,030)	—	—
Trademarks and trade names	1,710	(1,405)	—	305
	\$ 177,682	\$ (115,858)	\$ (10,828)	\$ 50,996

(1) Licenses is comprised of \$19.4 million of indefinite lived other intangible assets, included in other intangible assets, net, as of December 31, 2020

	Other Intangible Assets			
	Gross Carrying Value	Accumulated Amortization	Accumulated Impairment Losses	Net
At December 31, 2019				
Customer relationships and customer lists	\$ 108,641	\$ (67,879)	\$ (1,390)	\$ 39,372
Licenses (1)	26,186	—	—	26,186
Value of business acquired	20,200	(20,200)	—	—
Software	12,230	(12,230)	—	—
Patents and intellectual property	4,500	(1,875)	(2,625)	—
Covenants not-to-compete	4,030	(4,030)	—	—
Trademarks and trade names	1,710	(1,381)	—	329
	\$ 177,497	\$ (107,595)	\$ (4,015)	\$ 65,887

(1) Licenses is comprised of \$26.2 million of indefinite lived other intangible assets, included in other intangible assets, net, as of December 31, 2019

During 2020, the Company recorded amortization expense of \$8.3 million and an impairment loss of \$6.8 million related to other intangible assets (2019 - \$9.1 million and \$Nil, respectively).

During the quarter ended March 31, 2019, the Company recognized goodwill of \$13.1 million, based on foreign exchange rates on March 22, 2019, attributable to the excess of the purchase price over the fair value of the net assets acquired in the TMR Stock Purchase. In addition, the Company recognized identifiable finite lived intangible assets of \$11.2 million and identifiable indefinite lived intangible assets of \$6.8 million associated with TMR. Refer to "Note 3. Acquisition of Tokio Millennium Re" for additional information related to goodwill and other intangible assets associated with the acquisition of TMR.

In accordance with the Company's established accounting policy, the beginning of the fourth quarter was used as the date for performing the annual impairment test. During 2020, the Company elected to renew certain reinsurance contracts, that had previously been written on one of the acquired TMR balance sheets, on other balance sheets within the consolidated group and placed the TMR entity into run-off.

Accordingly and in connection with the Company's impairment assessment performed during the fourth quarter of 2020, it was determined that the license associated with this acquired TMR entity, which was initially reflected as an indefinite lived intangible asset of \$6.8 million at the time of the acquisition of TMR, should be written down to \$Nil. The Company recorded an intangible asset impairment charge of \$6.8 million during the year ended December 31, 2020.

In performing the impairment assessment, the Company first assessed qualitative factors to determine whether it was necessary to perform a quantitative impairment test. Based on its qualitative assessment, the Company determined it was not more likely than not that the fair value of the goodwill and other intangible assets in question were less than their respective carrying amounts. The qualitative assessment included the following factors which the Company determined had not significantly deteriorated given specific facts and circumstances: macroeconomic conditions; industry and market conditions; costs factors; and overall financial performance. Other than the goodwill and other intangible assets acquired and the intangible assets impaired as noted above and normal course amortization of intangible assets, in accordance with the Company's established accounting policy, there were no adjustments to carried goodwill and other intangible assets during the year ended December 31, 2020.

The remaining useful life of intangible assets with finite lives ranges from 2.3 to 13.2 years, with a weighted-average amortization period of 6.2 years. Expected amortization of the other intangible assets, including other intangible assets recorded in investments in other ventures, under equity method, is shown below:

	Other Intangibles Assets	Other Intangible Assets Included in Investments in Other Ventures, Under Equity Method	Total
2021	\$ 5,990	\$ 1,095	\$ 7,085
2022	5,602	1,095	6,697
2023	5,173	631	5,804
2024	4,716	194	4,910
2025	1,976	24	2,000
2025 and thereafter	4,902	184	5,086
Total remaining amortization expense	<u>28,359</u>	<u>3,223</u>	<u>31,582</u>
Indefinite lived	10,269	9,145	19,414
Total	<u>\$ 38,628</u>	<u>\$ 12,368</u>	<u>\$ 50,996</u>

NOTE 5. INVESTMENTS

Fixed Maturity Investments Trading

The following table summarizes the fair value of fixed maturity investments trading:

At December 31.	2020	2019
U.S. treasuries	\$ 4,960,409	\$ 4,467,345
Agencies	368,032	343,031
Non-U.S. government	491,531	497,392
Non-U.S. government-backed corporate	338,014	321,356
Corporate	4,261,025	3,075,660
Agency mortgage-backed	1,113,792	1,148,499
Non-agency mortgage-backed	291,444	294,604
Commercial mortgage-backed	791,272	468,698
Asset-backed	890,984	555,070
Total fixed maturity investments trading	\$ 13,506,503	\$ 11,171,655

Contractual maturities of fixed maturity investments trading are described in the following table. Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

At December 31, 2020	Amortized Cost	Fair Value
Due in less than one year	\$ 632,368	\$ 637,418
Due after one through five years	5,265,502	5,391,122
Due after five through ten years	3,674,901	3,806,564
Due after ten years	549,661	583,908
Mortgage-backed	2,145,366	2,196,507
Asset-backed	887,237	890,984
Total	\$ 13,155,035	\$ 13,506,503

Equity Investments Trading

The following table summarizes the fair value of equity investments trading:

At December 31.	2020	2019
Financials	\$ 452,765	\$ 248,189
Communications and technology	119,592	79,206
Consumer	44,477	35,987
Industrial, utilities and energy	43,380	38,583
Healthcare	35,140	29,510
Basic materials	7,263	5,456
Total	\$ 702,617	\$ 436,931

Pledged Investments

At December 31, 2020, \$8.1 billion of cash and investments at fair value were on deposit with, or in trust accounts for the benefit of, various counterparties, including with respect to the Company's letter of credit facilities (2019 - \$7.0 billion). Of this amount, \$2.5 billion is on deposit with, or in trust accounts for the benefit of, U.S. state regulatory authorities (2019 - \$2.0 billion).

Reverse Repurchase Agreements

At December 31, 2020, the Company held \$126.5 million (2019 - \$57.6 million) of reverse repurchase agreements. These loans are fully collateralized, are generally outstanding for a short period of time and are presented on a gross basis as part of short term investments on the Company's consolidated balance sheets. The required collateral for these loans typically includes high-quality, readily marketable instruments at a minimum amount of 102% of the loan principal. Upon maturity, the Company receives principal and interest income.

Net Investment Income

The components of net investment income are as follows:

Year ended December 31,	2020	2019	2018
Fixed maturity investments	\$ 278,215	\$ 318,503	\$ 211,973
Short term investments	20,799	56,264	33,571
Equity investments	6,404	4,808	4,474
Other investments			
Catastrophe bonds	54,784	46,154	31,051
Other	9,417	8,447	—
Cash and cash equivalents	2,974	7,676	3,810
	<u>372,593</u>	<u>441,852</u>	<u>284,879</u>
Investment expenses	(18,555)	(17,645)	(14,914)
Net investment income	<u>\$ 354,038</u>	<u>\$ 424,207</u>	<u>\$ 269,965</u>

Net Realized and Unrealized Gains (Losses) on Investments

Net realized and unrealized gains (losses) on investments are as follows:

Year ended December 31,	2020	2019	2018
Net realized gains (losses) on fixed maturity investments	276,901	90,260	(69,814)
Net unrealized gains (losses) on fixed maturity investments trading	216,859	170,183	(57,310)
Net realized and unrealized gains (loss) on fixed maturity investments trading	493,760	260,443	(127,124)
Net realized and unrealized gains (losses) on investments-related derivatives	68,608	58,891	(8,784)
Net realized gains on equity investments trading sold during the period	3,532	31,062	27,739
Net unrealized gains (losses) on equity investments trading still held at reporting date	262,064	64,087	(66,900)
Net realized and unrealized gains (losses) on equity investments trading	265,596	95,149	(39,161)
Net realized and unrealized losses on other investments - catastrophe bonds	(7,031)	(9,392)	(8,668)
Net realized and unrealized (losses) gains on other investments - other	(297)	9,018	569
Net realized and unrealized gains (losses) on investments	<u>\$ 820,636</u>	<u>\$ 414,109</u>	<u>\$ (183,168)</u>

Other Investments

The table below shows the fair value of the Company's portfolio of other investments:

At December 31,	2020	2019
Catastrophe bonds	\$ 881,290	\$ 781,641
Private equity investments	345,501	271,047
Senior secured bank loan funds	19,604	22,598
Hedge funds	10,553	12,091
Total other investments	<u>\$ 1,256,948</u>	<u>\$ 1,087,377</u>

Included in net realized and unrealized gains on investments for 2020 is a loss of \$2.4 million (2019 - loss of \$5.5 million, 2018 - income of \$0.3 million) representing the change in estimate during the period related to the difference between the Company's estimated fair value due to the lag in reporting, as discussed in "Note 2. Significant Accounting Policies," and the actual amount as reported in the final net asset values provided by the Company's fund managers.

The Company has committed capital to private equity investments, other investments and investments in other ventures of \$1.8 billion, of which \$809.0 million has been contributed at December 31, 2020. The Company's remaining commitments to these investments at December 31, 2020 totaled \$1.0 billion. In the future, the Company may enter into additional commitments in respect of private equity investments or individual portfolio company investment opportunities.

Investments in Other Ventures, under Equity Method

The table below shows the Company's portfolio of investments in other ventures, under equity method:

At December 31,	2020		2019	
	Ownership %	Carrying Value	Ownership %	Carrying Value
Tower Hill Companies (1)	2.0% - 25.0%	30,470	2.0% - 25.0%	36,779
Top Layer Re	50.0%	26,958	50.0%	35,363
Other	25.0%	40,945	26.6%	34,407
Total investments in other ventures, under equity method		<u>\$ 98,373</u>		<u>\$ 106,549</u>

(1) The Company has equity interests in Bluegrass Insurance Management, LLC, Tower Hill Claims Service, LLC, Tower Hill Holdings, Inc., Tower Hill Insurance Group, LLC, Tower Hill Insurance Managers, LLC, Tower Hill Re Holdings, Inc., Tower Hill Signature Insurance Holdings, Inc. and Tomoka Re Holdings, Inc. (collectively, the "Tower Hill Companies").

The table below shows the Company's equity in earnings of other ventures, under equity method:

Year ended December 31,	2020	2019	2018
Top Layer Re	\$ 9,595	\$ 8,801	\$ 8,852
Tower Hill Companies	3,104	10,337	9,605
Other	4,495	4,086	17
Total equity in earnings of other ventures, under equity method	<u>\$ 17,194</u>	<u>\$ 23,224</u>	<u>\$ 18,474</u>

During 2020, the Company received \$30.0 million of distributions from its investments in other ventures, under equity method (2019 - \$36.5 million, 2018 - \$26.1 million). Losses from the Company's investments in other ventures, under equity method, net of distributions received, were \$1.6 million at December 31, 2020 (2019 - losses of \$0.8 million, 2018 - earnings of \$3.8 million). Except for Top Layer Re, which is recorded on a current quarter basis, the equity in earnings of the Company's investments in other ventures are reported one quarter in arrears.

NOTE 6. FAIR VALUE MEASUREMENTS

The use of fair value to measure certain assets and liabilities with resulting unrealized gains or losses is pervasive within the Company's consolidated financial statements. Fair value is defined under accounting guidance currently applicable to the Company to be the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between open market participants at the measurement date. The Company recognizes the change in unrealized gains and losses arising from changes in fair value in its consolidated statements of operations.

FASB ASC Topic *Fair Value Measurements and Disclosures* prescribes a fair value hierarchy that prioritizes the inputs to the respective valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to valuation techniques that use at least one significant input that is unobservable (Level 3). The three levels of the fair value hierarchy are described below:

- Fair values determined by Level 1 inputs utilize unadjusted quoted prices obtained from active markets for identical assets or liabilities for which the Company has access. The fair value is determined by multiplying the quoted price by the quantity held by the Company;
- Fair values determined by Level 2 inputs utilize inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include quoted prices for similar assets and liabilities in active markets, and inputs other than quoted prices that are observable for the asset or liability, such as interest rates and yield curves that are observable at commonly quoted intervals, broker quotes and certain pricing indices; and
- Level 3 inputs are based all or in part on significant unobservable inputs for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability. In these cases, significant management assumptions can be used to establish management's best estimate of the assumptions used by other market participants in determining the fair value of the asset or liability.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy within which the fair value measurement in its entirety falls has been determined based on the lowest level input that is significant to the fair value measurement of the asset or liability. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment, and the Company considers factors specific to the asset or liability.

In order to determine if a market is active or inactive for a security, the Company considers a number of factors, including, but not limited to, the spread between what a seller is asking for a security and what a buyer is bidding for the same security, the volume of trading activity for the security in question, the price of the security compared to its par value (for fixed maturity investments), and other factors that may be indicative of market activity.

There have been no material changes in the Company's valuation techniques, nor have there been any transfers between Level 1 and Level 2, or Level 2 and Level 3 during the period represented by these consolidated financial statements.

Below is a summary of the assets and liabilities that are measured at fair value on a recurring basis and also represents the carrying amount on the Company's consolidated balance sheets:

At December 31, 2020	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Fixed maturity investments				
U.S. treasuries	\$ 4,960,409	\$ 4,960,409	\$ —	\$ —
Agencies	368,032	—	368,032	—
Non-U.S. government	491,531	—	491,531	—
Non-U.S. government-backed corporate	338,014	—	338,014	—
Corporate	4,261,025	—	4,261,025	—
Agency mortgage-backed	1,113,792	—	1,113,792	—
Non-agency mortgage-backed	291,444	—	291,444	—
Commercial mortgage-backed	791,272	—	791,272	—
Asset-backed	890,984	—	890,984	—
Total fixed maturity investments	13,506,503	4,960,409	8,546,094	—
Short term investments	4,993,735	—	4,993,735	—
Equity investments trading	702,617	702,617	—	—
Other investments				
Catastrophe bonds	881,290	—	881,290	—
Private equity investments (1)	345,501	—	—	79,807
Senior secured bank loan funds (1)	19,604	—	—	—
Hedge funds (1)	10,553	—	—	—
Total other investments	1,256,948	—	881,290	79,807
Other assets and (liabilities)				
Assumed and ceded (re)insurance contracts (2)	(6,211)	—	—	(6,211)
Derivatives (3)	22,873	(411)	23,284	—
Total other assets and (liabilities)	16,662	(411)	23,284	(6,211)
	\$ 20,476,465	\$ 5,662,615	\$ 14,444,403	\$ 73,596

(1) Certain investments, that are measured at fair value using the net asset value per share (or its equivalent) practical expedient, have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

(2) Included in assumed and ceded (re)insurance contracts at December 31, 2020 was \$1.4 million of other assets and \$7.6 million of other liabilities.

(3) Refer to "Note 19. Derivative Instruments" for additional information related to the fair value, by type of contract, of derivatives entered into by the Company.

At December 31, 2019	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Fixed maturity investments				
U.S. treasuries	\$ 4,467,345	\$ 4,467,345	\$ —	\$ —
Agencies	343,031	—	343,031	—
Non-U.S. government	497,392	—	497,392	—
Non-U.S. government-backed corporate	321,356	—	321,356	—
Corporate	3,075,660	—	3,075,660	—
Agency mortgage-backed	1,148,499	—	1,148,499	—
Non-agency mortgage-backed	294,604	—	294,604	—
Commercial mortgage-backed	468,698	—	468,698	—
Asset-backed	555,070	—	555,070	—
Total fixed maturity investments	11,171,655	4,467,345	6,704,310	—
Short term investments	4,566,277	—	4,566,277	—
Equity investments trading	436,931	436,931	—	—
Other investments				
Catastrophe bonds	781,641	—	781,641	—
Private equity investments (1)	271,047	—	—	74,634
Senior secured bank loan funds (1)	22,598	—	—	—
Hedge funds (1)	12,091	—	—	—
Total other investments	1,087,377	—	781,641	74,634
Other assets and (liabilities)				
Assumed and ceded (re)insurance contracts (2)	4,731	—	—	4,731
Derivatives (3)	16,937	(1,020)	17,957	—
Total other assets and (liabilities)	21,668	(1,020)	17,957	4,731
	<u>\$ 17,283,908</u>	<u>\$ 4,903,256</u>	<u>\$ 12,070,185</u>	<u>\$ 79,365</u>

(1) Certain investments, that are measured at fair value using the net asset value per share (or its equivalent) practical expedient, have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

(2) Included in assumed and ceded (re)insurance contracts at December 31, 2019 was \$32.9 million of other assets and \$28.2 million of other liabilities.

(3) Refer to "Note 19. Derivative Instruments" for additional information related to the fair value, by type of contract, of derivatives entered into by the Company.

Level 1 and Level 2 Assets and Liabilities Measured at Fair Value

Fixed Maturity Investments

Fixed maturity investments included in Level 1 consist of the Company's investments in U.S. treasuries. Fixed maturity investments included in Level 2 are agencies, non-U.S. government, non-U.S. government-backed corporate, corporate, agency mortgage-backed, non-agency mortgage-backed, commercial mortgage-backed and asset-backed.

The Company's fixed maturity investments are primarily priced using pricing services, such as index providers and pricing vendors, as well as broker quotations. In general, the pricing vendors provide pricing for a high volume of liquid securities that are actively traded. For securities that do not trade on an exchange, the pricing services generally utilize market data and other observable inputs in matrix pricing models to determine month end prices. Observable inputs include benchmark yields, reported trades,

broker-dealer quotes, issuer spreads, bids, offers, reference data and industry and economic events. Index pricing generally relies on market traders as the primary source for pricing; however, models are also utilized to provide prices for all index eligible securities. The models use a variety of observable inputs such as benchmark yields, transactional data, dealer runs, broker-dealer quotes and corporate actions. Prices are generally verified using third-party data. Securities which are priced by an index provider are generally included in the index.

In general, broker-dealers value securities through their trading desks based on observable inputs. The methodologies include mapping securities based on trade data, bids or offers, observed spreads, and performance on newly issued securities. Broker-dealers also determine valuations by observing secondary trading of similar securities. Prices obtained from broker quotations are considered non-binding, however they are based on observable inputs and by observing secondary trading of similar securities obtained from active, non-distressed markets.

The Company considers these broker quotations to be Level 2 inputs as they are corroborated with other market observable inputs. The techniques generally used to determine the fair value of the Company's fixed maturity investments are detailed below by asset class.

U.S. Treasuries

Level 1 - At December 31, 2020, the Company's U.S. treasuries fixed maturity investments were primarily priced by pricing services and had a weighted average yield to maturity of 0.4% and a weighted average credit quality of AA (2019 - 1.7% and AA, respectively). When pricing these securities, the pricing services utilize daily data from many real time market sources, including active broker-dealers. Certain data sources are regularly reviewed for accuracy to attempt to ensure the most reliable price source is used for each issue and maturity date.

Agencies

Level 2 - At December 31, 2020, the Company's agency fixed maturity investments had a weighted average yield to maturity of 0.9% and a weighted average credit quality of AA (2019 - 2.1% and AA, respectively). The issuers of the Company's agency fixed maturity investments primarily consist of the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation and other agencies. Fixed maturity investments included in agencies are primarily priced by pricing services. When evaluating these securities, the pricing services gather information from market sources and integrate other observations from markets and sector news. Evaluations are updated by obtaining broker-dealer quotes and other market information including actual trade volumes, when available. The fair value of each security is individually computed using analytical models which incorporate option adjusted spreads and other daily interest rate data.

Non-U.S. Government

Level 2 - At December 31, 2020, the Company's non-U.S. government fixed maturity investments had a weighted average yield to maturity of 0.5% and a weighted average credit quality of AAA (2019 - 1.6% and AA, respectively). The issuers of securities in this sector are non-U.S. governments and their respective agencies as well as supranational organizations. Securities held in these sectors are primarily priced by pricing services that employ proprietary discounted cash flow models to value the securities. Key quantitative inputs for these models are daily observed benchmark curves for treasury, swap and high issuance credits. The pricing services then apply a credit spread for each security which is developed by in-depth and real time market analysis. For securities in which trade volume is low, the pricing services utilize data from more frequently traded securities with similar attributes. These models may also be supplemented by daily market and credit research for international markets.

Non-U.S. Government-backed Corporate

Level 2 - At December 31, 2020, the Company's non-U.S. government-backed corporate fixed maturity investments had a weighted average yield to maturity of 1.0% and a weighted average credit quality of AA (2019 - 2.0% and AA, respectively). Non-U.S. government-backed corporate fixed maturity investments are primarily priced by pricing services that employ proprietary discounted cash flow models to value the securities. Key quantitative inputs for these models are daily observed benchmark curves for treasury, swap and high issuance credits. The pricing services then apply a credit spread to the respective curve for each

security which is developed by in-depth and real time market analysis. For securities in which trade volume is low, the pricing services utilize data from more frequently traded securities with similar attributes. These models may also be supplemented by daily market and credit research for international markets.

Corporate

Level 2 - At December 31, 2020, the Company's corporate fixed maturity investments principally consisted of U.S. and international corporations and had a weighted average yield to maturity of 2.2% and a weighted average credit quality of BBB (2019 - 3.0% and BBB, respectively). The Company's corporate fixed maturity investments are primarily priced by pricing services. When evaluating these securities, the pricing services gather information from market sources regarding the issuer of the security and obtain credit data, as well as other observations, from markets and sector news. Evaluations are updated by obtaining broker-dealer quotes and other market information including actual trade volumes, when available. The pricing services also consider the specific terms and conditions of the securities, including any specific features which may influence risk. In certain instances, securities are individually evaluated using a spread which is added to the U.S. treasury curve or a security specific swap curve as appropriate.

Agency Mortgage-backed

Level 2 - At December 31, 2020, the Company's agency mortgage-backed fixed maturity investments included agency residential mortgage-backed securities with a weighted average yield to maturity of 1.0%, a weighted average credit quality of AA and a weighted average life of 3.8 years (2019 - 2.5%, AA and 4.9 years, respectively). The Company's agency mortgage-backed fixed maturity investments are primarily priced by pricing services using a mortgage pool specific model which utilizes daily inputs from the active to-be-announced market which is very liquid, as well as the U.S. treasury market. The model also utilizes additional information, such as the weighted average maturity, weighted average coupon and other available pool level data which is provided by the sponsoring agency. Valuations are also corroborated with daily active market quotes.

Non-agency Mortgage-backed

Level 2 - The Company's non-agency mortgage-backed fixed maturity investments include non-agency prime, non-agency Alt-A and other non-agency residential mortgage-backed securities. At December 31, 2020, the Company's non-agency prime residential mortgage-backed fixed maturity investments had a weighted average yield to maturity of 2.0%, a weighted average credit quality of BBB, and a weighted average life of 4.0 years (2019 - 3.3%, non-investment grade and 4.8 years, respectively). The Company's non-agency Alt-A fixed maturity investments held at December 31, 2020 had a weighted average yield to maturity of 3.2%, a weighted average credit quality of non-investment grade and a weighted average life of 5.4 years (2019 - 3.8%, non-investment grade and 6.3 years, respectively). Securities held in these sectors are primarily priced by pricing services using an option adjusted spread model or other relevant models, which principally utilize inputs including benchmark yields, available trade information or broker quotes, and issuer spreads. The pricing services also review collateral prepayment speeds, loss severity and delinquencies among other collateral performance indicators for the securities valuation, when applicable.

Commercial Mortgage-backed

Level 2 - At December 31, 2020, the Company's commercial mortgage-backed fixed maturity investments had a weighted average yield to maturity of 1.5%, a weighted average credit quality of AAA, and a weighted average life of 5.0 years (2019 - 2.6%, AAA and 5.7 years, respectively). Securities held in these sectors are primarily priced by pricing services. The pricing services apply dealer quotes and other available trade information such as bids and offers, prepayment speeds which may be adjusted for the underlying collateral or current price data, the U.S. treasury curve and swap curve as well as cash settlement. The pricing services discount the expected cash flows for each security held in this sector using a spread adjusted benchmark yield based on the characteristics of the security.

Asset-backed

Level 2 - At December 31, 2020, the Company's asset-backed fixed maturity investments had a weighted average yield to maturity of 1.8%, a weighted average credit quality of AA and a weighted average life of 3.2 years (2019 - 3.3%, AAA and 3.2 years, respectively). The underlying collateral for the Company's asset-backed fixed maturity investments primarily consists of bank loans, student loans, credit card receivables, auto loans and other receivables. Securities held in these sectors are primarily priced by pricing services. The pricing services apply dealer quotes and other available trade information such as bids and offers, prepayment speeds which may be adjusted for the underlying collateral or current price data, the U.S. treasury curve and swap curve as well as cash settlement. The pricing services determine the expected cash flows for each security held in this sector using historical prepayment and default projections for the underlying collateral and current market data. In addition, a spread is applied to the relevant benchmark and used to discount the cash flows noted above to determine the fair value of the securities held in this sector.

Short Term Investments

Level 2 - At December 31, 2020, the Company's short term investments had a weighted average yield to maturity of 0.1% and a weighted average credit quality of AAA (2019 - 1.6% and AAA, respectively). The fair value of the Company's portfolio of short term investments is generally determined using amortized cost which approximates fair value and, in certain cases, in a manner similar to the Company's fixed maturity investments noted above.

Equity Investments, Classified as Trading

Level 1 - The fair value of the Company's portfolio of equity investments, classified as trading is primarily priced by pricing services, reflecting the closing price quoted for the final trading day of the period. When pricing these securities, the pricing services utilize daily data from many real time market sources, including applicable securities exchanges. All data sources are regularly reviewed for accuracy to attempt to ensure the most reliable price source was used for each security.

Other Investments

Catastrophe Bonds

Level 2 - The Company's other investments include investments in catastrophe bonds which are recorded at fair value based on broker or underwriter bid indications.

Other Assets and Liabilities

Derivatives

Level 1 and Level 2 - Other assets and liabilities include certain derivatives entered into by the Company. The fair value of these transactions includes certain exchange traded futures contracts which are considered Level 1, and foreign currency contracts and certain credit derivatives, determined using standard industry valuation models and considered Level 2, as the inputs to the valuation model are based on observable market inputs. For credit derivatives, these inputs include credit spreads, credit ratings of the underlying referenced security, the risk free rate and the contract term. For foreign currency contracts, these inputs include spot rates and interest rate curves.

Level 3 Assets and Liabilities Measured at Fair Value

Below is a summary of quantitative information regarding the significant unobservable inputs (Level 3) used in determining the fair value of assets and liabilities measured at fair value on a recurring basis:

<u>At December 31, 2020</u>	<u>Fair Value (Level 3)</u>	<u>Valuation Technique</u>	<u>Unobservable Inputs</u>	<u>Low</u>	<u>High</u>	<u>Weighted Average or Actual</u>
Other investments						
Private equity investment	\$ 79,807	Internal valuation model	Discount rate	n/a	n/a	9.0 %
			Liquidity discount	n/a	n/a	15.0 %
Total other investments	79,807					
Other assets and (liabilities)						
Assumed and ceded (re)insurance contracts	(190)	Internal valuation model	Bond price	n/a	n/a	\$ 99.31
			Liquidity discount	n/a	n/a	1.3 %
Assumed and ceded (re)insurance contracts	(7,395)	Internal valuation model	Net undiscounted cash flows	n/a	n/a	\$ 12,514
			Expected loss ratio	n/a	n/a	24.0 %
			Discount rate	n/a	n/a	0.4 %
Assumed and ceded (re)insurance contracts	1,374	Internal valuation model	Expected loss ratio	n/a	n/a	0.0 %
Total other assets and (liabilities)	(6,211)					
Total other assets and (liabilities) measured at fair value on a recurring basis using Level 3 inputs	<u>\$ 73,596</u>					

Below is a reconciliation of the beginning and ending balances, for the periods shown, of assets and liabilities measured at fair value on a recurring basis using Level 3 inputs. Interest and dividend income are included in net investment income and are excluded from the reconciliation.

	<u>Other Investments</u>	<u>Other Assets and (Liabilities)</u>	<u>Total</u>
Balance - January 1, 2020	\$ 74,634	\$ 4,731	\$ 79,365
Total realized and unrealized losses			
Included in net realized and unrealized gains (losses) on investments	(5,662)	—	(5,662)
Included in other income	—	(3,191)	(3,191)
Total foreign exchange gains	10	—	10
Purchases	20,962	(2,012)	18,950
Sales	(10,137)	—	(10,137)
Settlements	—	(5,739)	(5,739)
Balance - December 31, 2020	<u>\$ 79,807</u>	<u>\$ (6,211)</u>	<u>\$ 73,596</u>

	Other Investments	Other Assets and (Liabilities)	Total
Balance - January 1, 2019	\$ 54,545	\$ (8,359)	\$ 46,186
Total realized and unrealized gains (losses)			
Included in net realized and unrealized gains (losses) on investments	2,126	—	2,126
Included in other income	—	(2,347)	(2,347)
Total foreign exchange gains	5	—	5
Purchases	17,958	(4,553)	13,405
Settlements	—	20	20
Amounts acquired (1)	—	19,970	19,970
Balance - December 31, 2019	<u>\$ 74,634</u>	<u>\$ 4,731</u>	<u>\$ 79,365</u>

(1) Represents the fair value of the other assets acquired from TMR, measured at fair value on a recurring basis using Level 3 inputs at March 22, 2019. Refer to "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of TMR.

Other Investments

Private Equity Investment

Level 3 - At December 31, 2020, the Company's other investments included \$79.8 million of private equity investments which are recorded at fair value, with the fair value obtained through the use of internal valuation models. The Company measured the fair value of these investments using multiples of net tangible book value of the underlying entity. The significant unobservable inputs used in the fair value measurement of these investments are liquidity discount rates applied to each of the net tangible book value multiples used in the internal valuation models, and discount rates applied to the expected cash flows of the underlying entity in various scenarios. These unobservable inputs in isolation can cause significant increases or decreases in fair value. Generally, an increase in the liquidity discount rate or discount rates would result in a decrease in the fair value of these private equity investments.

Other Assets and Liabilities

Assumed and Ceded (Re)insurance Contracts

Level 3 - At December 31, 2020, the Company had a \$0.2 million net liability related to an assumed reinsurance contract accounted for at fair value, with the fair value obtained through the use of an internal valuation model. The inputs to the internal valuation model are principally based on indicative pricing obtained from independent brokers and pricing vendors for similarly structured marketable securities. The most significant unobservable inputs include prices for similar marketable securities and a liquidity premium. The Company considers the prices for similar securities to be unobservable, as there is little, if any market activity for these similar assets. In addition, the Company has estimated a liquidity premium that would be required if the Company attempted to effectively exit its position by executing a short sale of these securities. Generally, an increase in the prices for similar marketable securities or a decrease in the liquidity premium would result in an increase in the expected profit and ultimate fair value of this assumed reinsurance contract.

Level 3 - At December 31, 2020, the Company had a \$7.4 million net liability related to assumed and ceded (re)insurance contracts accounted for at fair value, with the fair value obtained through the use of internal valuation models. The inputs to the models are principally based on proprietary data as observable market inputs are generally not available. The most significant unobservable inputs include the assumed and ceded expected net cash flows related to the contracts, including the expected premium, acquisition expenses and losses; the expected loss ratio and the relevant discount rate used to present value the net cash flows. The contract period and acquisition expense ratio are considered an observable input as each is defined in the contract. Generally, an increase in the net expected cash flows and expected term of the contract and a decrease in the discount rate, expected loss ratio or acquisition expense ratio, would result in an increase in the expected profit and ultimate fair value of these assumed and ceded (re)insurance contracts.

Level 3 - At December 31, 2020, the Company had a \$1.4 million net asset related to assumed and ceded (re)insurance contracts accounted for at fair value, with the fair value obtained through the use of internal valuation models. The inputs to the models are primarily based on the unexpired period of risk and an evaluation of the probability of loss. The fair value of the contracts are sensitive to loss-triggering events. In the event of a loss, the Company would adjust the fair value of the contract to account for a recovery or liability in accordance with the contract terms and the estimate of exposure under the contract. The inputs for the contracts are based on management's evaluation and are unobservable. The assumed and ceded (re)insurance contracts expire during 2021.

Financial Instruments Disclosed, But Not Carried, at Fair Value

The Company uses various financial instruments in the normal course of its business. The Company's insurance contracts are excluded from the fair value of financial instruments accounting guidance, unless the Company elects the fair value option, and therefore, are not included in the amounts discussed herein. The carrying values of cash and cash equivalents, accrued investment income, receivables for investments sold, certain other assets, payables for investments purchased, certain other liabilities, and other financial instruments not included herein approximated their fair values.

Debt

Included on the Company's consolidated balance sheet at December 31, 2020 were debt obligations of \$1.1 billion (2019 - \$1.4 billion). At December 31, 2020, the fair value of the Company's debt obligations was \$1.3 billion (2019 - \$1.5 billion).

The fair value of the Company's debt obligations is determined using indicative market pricing obtained from third-party service providers, which the Company considers Level 2 in the fair value hierarchy. There have been no changes during the period in the Company's valuation technique used to determine the fair value of the Company's debt obligations. Refer to "Note 9. Debt and Credit Facilities" for additional information related to the Company's debt obligations.

The Fair Value Option for Financial Assets and Financial Liabilities

The Company has elected to account for certain financial assets and financial liabilities at fair value using the guidance under FASB ASC Topic *Financial Instruments* as the Company believes it represents the most meaningful measurement basis for these assets and liabilities. Below is a summary of the balances the Company has elected to account for at fair value:

At December 31,	2020		2019	
Other investments	\$	1,256,948	\$	1,087,377
Other assets	\$	8,982	\$	32,944
Other liabilities	\$	15,193	\$	28,213

Included in net realized and unrealized gains on investments for 2020 was net unrealized losses of \$4.7 million related to the changes in fair value of other investments (2019 - gains of \$3.8 million, 2018 - losses of \$8.3 million). Included in other income for 2020 were net unrealized gains of \$Nil related to the changes in the fair value of other assets and liabilities (2019 - \$Nil, 2018 - \$Nil).

Measuring the Fair Value of Other Investments Using Net Asset Valuations

The table below shows the Company's portfolio of other investments measured using net asset valuations as a practical expedient:

<u>At December 31, 2020</u>	<u>Fair Value</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency</u>	<u>Redemption Notice Period (Minimum Days)</u>	<u>Redemption Notice Period (Maximum Days)</u>
Private equity investments	\$ 265,694	\$ 727,214	See below	See below	See below
Senior secured bank loan funds	19,604	252,104	See below	See below	See below
Hedge funds	10,553	—	See below	See below	See below
Total other investments measured using net asset valuations	<u>\$ 295,851</u>	<u>\$ 979,318</u>			

Private Equity Investments

A significant portion of the Company's investments in private equity investments include alternative asset limited partnerships (or similar corporate structures) that invest in certain private equity and private credit asset classes including U.S. and global leveraged buyouts, mezzanine investments, distressed securities, real estate, and direct lending. The Company generally has no right to redeem its interest in any of these private equity investments in advance of dissolution of the applicable private equity investment. Instead, the nature of these investments is that distributions are received by the Company in connection with the liquidation of the underlying assets of the respective private equity investment. It is estimated that the majority of the underlying assets of the limited partnerships would liquidate over 7 to 10 years from inception of the respective limited partnership.

Senior Secured Bank Loan Funds

At December 31, 2020 the Company had \$19.6 million invested in closed end funds which invest primarily in loans. The Company has no right to redeem its investment in these funds. It is estimated that the majority of the underlying assets in these closed end funds would begin to liquidate over 4 to 5 years from inception of the applicable fund.

Hedge Funds

At December 31, 2020, the Company had \$10.6 million of investments in hedge funds that are primarily focused on global credit opportunities which are generally redeemable at the option of the shareholder.

NOTE 7. REINSURANCE

The Company purchases reinsurance and other protection to manage its risk portfolio and to reduce its exposure to large losses. The Company currently has in place contracts that provide for recovery of a portion of certain claims and claim expenses, generally in excess of various retentions or on a proportional basis. In addition to losses recoverable, certain of the Company's ceded reinsurance contracts provide for payments of additional premiums, for reinstatement premiums and for lost no-claims bonuses, which are incurred when losses are ceded to the respective reinsurance contracts. The Company remains liable to the extent that any reinsurer fails to meet its obligations.

The following table sets forth the effect of reinsurance and retrocessional activity on premiums written and earned and on net claims and claim expenses incurred:

Year ended December 31,	2020	2019	2018
Premiums Written			
Direct	\$ 612,172	\$ 461,409	\$ 337,587
Assumed	5,193,993	4,346,341	2,972,840
Ceded	(1,709,832)	(1,426,257)	(1,178,525)
Net premiums written	<u>\$ 4,096,333</u>	<u>\$ 3,381,493</u>	<u>\$ 2,131,902</u>
Premiums Earned			
Direct	\$ 536,595	\$ 404,525	\$ 292,219
Assumed	5,078,682	4,348,261	2,779,796
Ceded	(1,662,815)	(1,414,383)	(1,095,886)
Net premiums earned	<u>\$ 3,952,462</u>	<u>\$ 3,338,403</u>	<u>\$ 1,976,129</u>
Claims and Claim Expenses			
Gross claims and claim expenses incurred	\$ 3,893,204	\$ 3,221,778	\$ 2,578,536
Claims and claim expenses recovered	(968,595)	(1,124,757)	(1,458,518)
Net claims and claim expenses incurred	<u>\$ 2,924,609</u>	<u>\$ 2,097,021</u>	<u>\$ 1,120,018</u>

The Company adopted ASU 2016-13 effective January 1, 2020. In assessing an allowance for reinsurance assets, which includes premiums receivable and reinsurance recoverable, the Company considers historical information, financial strength of reinsurers, collateralization amounts, and ratings to determine the appropriateness of the allowance. In assessing future default for reinsurance assets, the Company evaluates the provision for current expected credit losses under the probability of default and loss given default method. The Company utilizes its internal capital and risk models, which use counterparty ratings from major rating agencies, and assesses the current market conditions for the likelihood of default. The Company updates its internal capital and risk models for counterparty ratings and current market conditions on a periodic basis. Historically, the Company has not experienced material credit losses from reinsurance assets. The adoption of ASU 2016-13 did not have a material impact on the Company's consolidated statements of operations and financial position.

Premiums receivable reflect premiums written based on contract and policy terms and include estimates based on information received from both insureds and ceding companies and our own judgement. Consequently, premiums receivable include premiums reported by the ceding companies, supplemented by our estimates of premiums that are written but not reported. Due to the nature of reinsurance, ceding companies routinely report and remit premiums to us subsequent to the contract coverage period, although the time lag involved in the process of reporting and collecting premiums is typically shorter than the lag in reporting losses.

At December 31, 2020, the Company's premiums receivable balance was \$2.9 billion (2019 - \$2.6 billion). Of the Company's premiums receivable balance as of December 31, 2020, the majority are receivable from highly rated counterparties and Lloyd's syndicates. Following the adoption of ASU 2016-13, the provision for current expected credit losses on the Company's premiums receivable was \$6.0 million at December 31, 2020 (2019 - \$2.1 million). The following table provides a roll forward of the provision for current expected credit losses of the Company's premiums receivable:

Year ended December 31,	2020
Beginning balance	\$ 2,096
Provision for allowance	3,865
Ending balance	<u>\$ 5,961</u>

Reinsurance recoverable reflects amounts due from reinsurers based on the claim liabilities associated with the reinsured policy. The Company accrues amounts that are due from assuming companies based on estimated ultimate losses applicable to the contracts.

At December 31, 2020, the Company's reinsurance recoverable balance was \$2.9 billion (2019 - \$2.8 billion). Of the Company's reinsurance recoverable balance at December 31, 2020, 45.2% is fully collateralized by our reinsurers, 53.4% is recoverable from reinsurers rated A- or higher by major rating agencies and 1.4% is recoverable from reinsurers rated lower than A- by major rating agencies (2019 - 57.5%, 41.0% and 1.5%, respectively). The reinsurers with the three largest balances accounted for 15.3%, 10.8% and 6.7%, respectively, of the Company's reinsurance recoverable balance at December 31, 2020 (2019 - 12.7%, 7.2% and 7.0%, respectively). The provision for current expected credit losses was \$6.3 million at December 31, 2020 (2019 - \$7.3 million). The three largest company-specific components of the provision for current expected credit losses represented 13.2%, 13.0% and 6.7%, respectively, of the Company's total provision for current expected credit losses at December 31, 2020 (2019 - 18.1%, 7.9% and 7.2%, respectively). The following table provides a roll forward of the provision for current expected credit losses of the Company's reinsurance recoverable:

Year ended December 31,	2020
Beginning balance	\$ 7,265
Provision for allowance	(931)
Ending balance	<u>\$ 6,334</u>

NOTE 8. RESERVE FOR CLAIMS AND CLAIM EXPENSES

The Company believes the most significant accounting judgment made by management is its estimate of claims and claim expense reserves. Claims and claim expense reserves represent estimates, including actuarial and statistical projections at a given point in time, of the ultimate settlement and administration costs for unpaid claims and claim expenses arising from the insurance and reinsurance contracts the Company sells. The Company establishes its claims and claim expense reserves by taking claims reported to the Company by insureds and ceding companies, but which have not yet been paid ("case reserves"), adding estimates for the anticipated cost of claims incurred but not yet reported to the Company, or incurred but not enough reported to the Company (collectively referred to as "IBNR") and, if deemed necessary, adding costs for additional case reserves which represent the Company's estimates for claims related to specific contracts previously reported to the Company which it believes may not be adequately estimated by the client as of that date, or adequately covered in the application of IBNR. The Company's reserving committee, which includes members of the Company's senior management, reviews, discusses, and assesses the reasonableness and adequacy of the reserving estimates included in our audited financial statements.

The following table summarizes the Company's claims and claim expense reserves by segment, allocated between case reserves, additional case reserves and IBNR:

At December 31, 2020	Case Reserves	Additional Case Reserves	IBNR	Total
Property	\$ 1,127,201	\$ 1,617,003	\$ 1,627,541	\$ 4,371,745
Casualty and Specialty	1,651,150	133,843	4,223,692	6,008,685
Other	708	—	—	708
Total	<u>\$ 2,779,059</u>	<u>\$ 1,750,846</u>	<u>\$ 5,851,233</u>	<u>\$ 10,381,138</u>
At December 31, 2019				
Property	\$ 1,253,406	\$ 1,631,223	\$ 1,189,221	\$ 4,073,850
Casualty and Specialty	1,596,426	129,720	3,583,913	5,310,059
Other	440	—	—	440
Total	<u>\$ 2,850,272</u>	<u>\$ 1,760,943</u>	<u>\$ 4,773,134</u>	<u>\$ 9,384,349</u>

Activity in the liability for unpaid claims and claim expenses is summarized as follows:

Year ended December 31,	2020	2019	2018
Reserve for claims and claim expenses, net of reinsurance recoverable, as of beginning of period	\$ 6,593,052	\$ 3,704,050	\$ 3,493,778
Net incurred related to:			
Current year	3,108,421	2,123,876	1,390,767
Prior years	(183,812)	(26,855)	(270,749)
Total net incurred	2,924,609	2,097,021	1,120,018
Net paid related to:			
Current year	412,172	265,649	391,061
Prior years	1,592,456	832,405	503,708
Total net paid	2,004,628	1,098,054	894,769
Foreign exchange (1)	97,273	31,260	(14,977)
Amounts disposed (2)	(155,178)	—	—
Amounts acquired (3)	—	1,858,775	—
Reserve for claims and claim expenses, net of reinsurance recoverable, as of end of period	7,455,128	6,593,052	3,704,050
Reinsurance recoverable as of end of period	2,926,010	2,791,297	2,372,221
Reserve for claims and claim expenses as of end of period	\$ 10,381,138	\$ 9,384,349	\$ 6,076,271

(1) Reflects the impact of the foreign exchange revaluation of the reserve for claims and claim expenses, net of reinsurance recoverable, denominated in non-U.S. dollars as at the balance sheet date.

(2) Represents the fair value of RenaissanceRe UK's reserve for claims and claim expenses, net of reinsurance recoverable, disposed of on August 18, 2020.

(3) Represents the fair value of TMR's reserve for claims and claim expenses, net of reinsurance recoverable, acquired at March 22, 2019. Refer to "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of TMR.

The Company's reserving methodology for each line of business uses a loss reserving process that calculates a point estimate for its ultimate settlement and administration costs for claims and claim expenses. The Company does not calculate a range of estimates and does not discount any of its reserves for claims and claim expenses. The Company uses this point estimate, along with paid claims and case reserves, to record its best estimate of additional case reserves and IBNR in its consolidated financial statements. Under GAAP, the Company is not permitted to establish estimates for catastrophe claims and claim expense reserves until an event occurs that gives rise to a loss.

Reserving involves other uncertainties, such as the dependence on information from ceding companies, the time lag inherent in reporting information from the primary insurer to the Company or to the Company's ceding companies, and differing reserving practices among ceding companies. The information received from ceding companies is typically in the form of bordereaux, broker notifications of loss and/or discussions with ceding companies or their brokers. This information may be received on a monthly, quarterly or transactional basis and normally includes paid claims and estimates of case reserves. The Company sometimes also receives an estimate or provision for IBNR. This information is updated and adjusted periodically during the loss settlement period as new data or facts in respect of initial claims, client accounts, industry or event trends may be reported or emerge in addition to changes in applicable statutory and case laws.

The Company's estimates of large losses are based on factors including currently available information derived from claims information from certain customers and brokers, industry assessments of losses, proprietary models, and the terms and conditions of the Company's contracts. The uncertainty of the Company's estimates for large losses is also impacted by the preliminary nature of the information available, the magnitude and relative infrequency of the events, the expected duration of the respective claims development period, inadequacies in the data provided to the relevant date by industry participants and the potential for further reporting lags or insufficiencies; and in certain large losses, significant uncertainty as to the form of the claims and legal issues, under the relevant terms of insurance and reinsurance contracts. In addition, a significant portion of the net claims and claim expenses associated with

certain large losses can be concentrated with a few large clients and therefore the loss estimates for these large losses may vary significantly based on the claims experience of those clients. The contingent nature of business interruption and other exposures will also impact losses in a meaningful way, which may give rise to significant complexity in respect of claims handling, claims adjustment and other coverage issues, over time. Given the magnitude of certain events, there can be meaningful uncertainty regarding total covered losses for the insurance industry and, accordingly, several of the key assumptions underlying the Company's loss estimates. Loss reserve estimation in respect of the Company's retrocessional contracts poses further challenges compared to directly assumed reinsurance. In addition, the Company's actual net losses from these events may increase if the Company's reinsurers or other obligors fail to meet their obligations.

The Company reevaluates its actuarial reserving techniques on a periodic basis. Typically, the quarterly review procedures include reviewing paid and reported claims in the most recent reporting period, reviewing the development of paid and reported claims from prior periods, and reviewing the Company's overall experience by underwriting year and in the aggregate. The Company monitors its expected ultimate claims and claim expense ratios and expected claims reporting assumptions on a quarterly basis and compares them to its actual experience. These actuarial assumptions are generally reviewed annually, based on input from the Company's actuaries, underwriters, claims personnel and finance professionals, although adjustments may be made more frequently if needed. Assumption changes are made to adjust for changes in the pricing and terms of coverage the Company provides, changes in industry results for similar business, as well as its actual experience to the extent the Company has enough data to rely on its own experience. If the Company determines that adjustments to an earlier estimate are appropriate, such adjustments are recorded in the period in which they are identified.

Because of the inherent uncertainties discussed above, the Company has developed a reserving philosophy that attempts to incorporate prudent assumptions and estimates, and the Company has generally experienced favorable net development on prior accident years net claims and claim expenses in the last several years. However, there is no assurance that this favorable development on prior accident years net claims and claim expenses will occur in future periods.

The Company establishes a provision for unallocated loss adjustment expenses ("ULAE") when the related reserve for claims and claim expenses is established. ULAE are expenses that cannot be associated with a specific claim but are related to claims paid or in the process of settlement, such as internal costs of the claims function, and are included in the reserve for claims and claim expenses. The determination of the ULAE provision is subject to judgment.

Incurred and Paid Claims Development and Reserving Methodology

The information provided herein about incurred and paid accident year claims development for the years ended prior to December 31, 2020 on a consolidated basis and by segment is presented as supplementary information. The Company has applied a retrospective approach with respect to its acquisitions, presenting all relevant historical information for all periods presented. In addition, included in the incurred claims and claim expenses and cumulated paid claims and claim expenses tables below are reconciling items that represents the unamortized balance of fair value adjustments recorded in connection with the acquisitions of Platinum Underwriters Holdings, Ltd. ("Platinum") and TMR to reflect an increase in net claims and claim expenses due to the addition of a market based risk margin that represented the cost of capital required by a market participant to assume the net claims and claim expenses of Platinum and TMR, partially offset by a decrease from discounting in connection with the acquisitions of Platinum and TMR, to reflect the time value of money.

For incurred and paid accident year claims denominated in foreign currency, the Company used the current year-end balance sheet foreign exchange rate for all periods provided, thereby eliminating the effects of changes in foreign currency translation rates from the incurred and paid accident year claims development information included in the tables below.

The following table details the Company's consolidated incurred claims and claim expenses and cumulative paid claims and claim expenses as of December 31, 2020, net of reinsurance, as well as IBNR plus additional case reserve ("ACR") included within the net incurred claims amounts.

Incurred Claims and Claim Expenses, Net of Reinsurance											At December 31, 2020
For the year ended December 31,											
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	IBNR and ACR
	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	
2011	\$ 2,057,531	\$ 2,003,446	\$ 1,905,502	\$ 1,845,827	\$ 1,814,478	\$ 1,775,879	\$ 1,760,870	\$ 1,753,974	\$ 1,741,868	\$ 1,739,044	\$ 42,682
2012	—	1,142,390	1,026,595	962,397	930,761	902,432	904,408	910,998	916,065	900,001	33,600
2013	—	—	921,455	896,904	845,473	798,648	774,095	755,412	738,973	736,657	22,627
2014	—	—	—	1,010,256	982,016	972,429	948,224	929,248	926,802	892,597	62,812
2015	—	—	—	—	1,146,737	1,151,413	1,167,569	1,136,753	1,132,034	1,145,196	111,924
2016	—	—	—	—	—	1,429,056	1,475,540	1,457,825	1,454,217	1,403,513	136,821
2017	—	—	—	—	—	—	2,966,271	2,761,844	2,691,020	2,685,050	543,257
2018	—	—	—	—	—	—	—	2,225,968	2,380,979	2,394,667	656,507
2019	—	—	—	—	—	—	—	—	2,234,727	2,229,128	1,167,735
2020	—	—	—	—	—	—	—	—	—	2,980,390	2,462,366
Total										\$ 17,106,243	\$ 5,240,331
Cumulative Paid Claims and Claim Expenses, Net of Reinsurance											
For the year ended December 31,											
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	
2011	\$ 370,083	\$ 766,658	\$ 1,204,812	\$ 1,398,853	\$ 1,521,666	\$ 1,566,774	\$ 1,606,091	\$ 1,626,868	\$ 1,642,690	\$ 1,654,513	
2012	—	268,952	419,242	525,208	599,696	651,403	726,192	758,265	789,281	798,486	
2013	—	—	133,356	345,709	440,266	503,603	562,764	596,950	625,156	645,255	
2014	—	—	—	231,666	438,641	561,274	637,889	699,620	747,069	777,240	
2015	—	—	—	—	263,046	499,116	664,213	780,987	877,359	948,787	
2016	—	—	—	—	—	288,221	629,894	837,022	978,676	1,089,800	
2017	—	—	—	—	—	—	748,714	1,077,845	1,377,696	1,732,228	
2018	—	—	—	—	—	—	—	589,357	819,173	1,257,609	
2019	—	—	—	—	—	—	—	—	288,435	701,982	
2020	—	—	—	—	—	—	—	—	—	390,725	
Total										\$ 9,996,625	
										Outstanding liabilities from accident year 2010 and prior, net of reinsurance	365,294
										Claims and claim expenses, net of reinsurance, from the Company's former Bermuda-based insurance operations	508
										Adjustment for unallocated loss adjustment expenses	57,538
										Unamortized fair value adjustments recorded in connection with acquisitions	(77,830)
										Liability for claims and claim expenses, net of reinsurance	\$ 7,455,128

Property Segment

Within the Property segment, the Company writes property catastrophe excess of loss reinsurance contracts to insure insurance and reinsurance companies against natural and man-made catastrophes. Under these contracts, the Company indemnifies an insurer or reinsurer when its aggregate paid claims and claim expenses from a single occurrence of a covered peril exceeds the attachment point specified in the contract, up to an amount per loss specified in the contract. Generally, the Company's most significant exposure is to losses from hurricanes, earthquakes and other windstorms, although the Company is also exposed to claims arising from other man-made and natural catastrophes, such as tsunamis, winter storms, freezes, floods, fires, tornadoes, explosions and acts of terrorism. The Company's predominant exposure under such coverage is to property damage. However, other risks, including business interruption and other non-property losses, may also be covered under the Company's catastrophe contracts when arising from a covered peril. The Company's coverages are offered on either a worldwide basis or are limited to selected geographic areas.

Coverage can also vary from “all property” perils to limited coverage on selected perils, such as “earthquake only” coverage. The Company also enters into retrocessional contracts that provide property catastrophe coverage to other reinsurers or retrocedants. This coverage is generally in the form of excess of loss retrocessional contracts and may cover all perils and exposures on a worldwide basis or be limited in scope to selected geographic areas, perils and/or exposures. The exposures the Company assumes from retrocessional business can change within a contract term as the underwriters of a retrocedant may alter their book of business after the retrocessional coverage has been bound. The Company also offers dual trigger reinsurance contracts which require the Company to pay claims based on claims incurred by insurers and reinsurers in addition to the estimate of insured industry losses as reported by referenced statistical reporting agencies.

Also included in the Property segment is property per risk, property (re)insurance, delegated authority arrangements and regional U.S. multi-line reinsurance. The Company's predominant exposure under such coverage is to property damage. However, other risks, including business interruption and other non-property losses, may also be covered when arising from a covered peril. The Company's coverages are offered on either a worldwide basis or are limited to selected geographic areas. Principally all of the business is reinsurance, although the Company also writes insurance business primarily through delegated authority arrangements. The Company offers these products principally through proportional reinsurance coverage or in the form of delegated authority arrangements. In a proportional reinsurance arrangement (also referred to as quota share reinsurance or pro rata reinsurance), the reinsurer shares a proportional part of the original premiums and losses of the reinsured.

Claims and claim expenses in the Company's Property segment are generally characterized by losses of low frequency and high severity. Initial reporting of paid and incurred claims in general, tends to be relatively prompt, particularly for less complex losses. The Company considers this business “short-tail” as compared to the reporting of claims for “long-tail” products, which tends to be slower. However, the timing of claims payment and reporting also varies depending on various factors, including: whether the claims arise under reinsurance of primary insurance companies or reinsurance of other reinsurance companies; the nature of the events (e.g., hurricanes, earthquakes or terrorism); the geographic area involved; post-event inflation which may cause the cost to repair damaged property to increase significantly from current estimates, or for property claims to remain open for a longer period of time, due to limitations on the supply of building materials, labor and other resources; complex policy coverage and other legal issues; and the quality of each client's claims management and reserving practices. Management's judgments regarding these factors are reflected in the Company's reserve for claims and claim expenses.

Reserving for most of the Company's Property segment generally does not involve the use of traditional actuarial techniques. Rather, claims and claim expense reserves are estimated by management by completing an in-depth analysis of the individual contracts which may potentially be impacted by the loss. The in-depth analysis generally involves: 1) estimating the size of insured industry losses; 2) reviewing reinsurance contract portfolios to identify contracts which are exposed; 3) reviewing information reported or otherwise provided by customers and brokers; 4) discussing the loss with customers and brokers; and 5) estimating the ultimate expected cost to settle all claims and administrative costs arising from the loss on a contract-by-contract basis and in aggregate for the event. Once a loss has occurred, during the then current reporting period, the Company records its best estimate of the ultimate expected cost to settle all claims arising from the loss. The Company's estimate of claims and claim expense reserves is then determined by deducting cumulative paid losses from its estimate of the ultimate expected loss. The Company's estimate of IBNR is determined by deducting cumulative paid losses, case reserves and additional case reserves from its estimate of the ultimate expected loss. Once the Company receives a valid notice of loss or payment request under a catastrophe reinsurance contract, it is generally able to process and pay such claims promptly.

Because losses from which claims arise under policies written within the Property segment are typically prominent, public events such as hurricanes and earthquakes, the Company is often able to use independent reports as part of its loss reserve estimation process. The Company also reviews catastrophe bulletins published by various statistical reporting agencies to assist in determining the size of the industry loss, although these reports may not be available for some time after an event.

For smaller events including localized severe weather events such as windstorms, hail, ice, snow, flooding, freezing and tornadoes, which are not necessarily prominent, public occurrences, the Company initially

places greater reliance on catastrophe bulletins published by statistical reporting agencies to assist in determining what events occurred during the reporting period than the Company does for large events. This includes reviewing catastrophe bulletins published by Property Claim Services for U.S. catastrophes. The Company sets its initial estimates of reserves for claims and claim expenses for these smaller events based on a combination of its historical market share for these types of losses and the estimate of the total insured industry property losses as reported by statistical reporting agencies, although management may make significant adjustments based on the Company's current exposure to the geographic region involved as well as the size of the loss and the peril involved. This approach supplements the Company's approach for estimating losses for larger catastrophes, which as discussed above, includes discussions with brokers and ceding companies and reviewing individual contracts impacted by the event. Approximately one year from the date of loss for these small events, the Company typically estimates IBNR for these events by using the paid Bornhuetter-Ferguson actuarial method. The loss development factors for the paid Bornhuetter-Ferguson actuarial method are selected based on a review of the Company's historical experience. There were no significant changes to the Company's paid loss development factors over the last three years.

In general, reserves for the Company's more recent large losses are subject to greater uncertainty and, therefore, greater potential variability, and are likely to experience material changes from one period to the next. This is due to the uncertainty as to the size of the industry losses, uncertainty as to which contracts have been exposed, uncertainty due to complex legal and coverage issues that can arise out of large or complex, and uncertainty as to the magnitude of claims incurred by the Company's customers. As the Company's claims age, more information becomes available and the Company believes its estimates become more certain.

The following table details the Company's Property segment incurred claims and claim expenses and cumulative paid claims and claim expenses as of December 31, 2020, net of reinsurance, as well as IBNR plus ACR included within the net incurred claims amounts.

Incurred Claims and Claim Expenses, Net of Reinsurance											At December 31, 2020
Accident Year	For the year ended December 31,										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	
2011	\$ 1,628,699	\$ 1,571,670	\$ 1,501,089	\$ 1,470,521	\$ 1,446,398	\$ 1,415,459	\$ 1,412,109	\$ 1,398,038	\$ 1,379,645	\$ 1,380,673	\$ 23,635
2012	—	562,094	431,482	397,075	376,811	359,890	348,108	340,218	335,699	327,407	3,286
2013	—	—	323,743	300,349	277,641	255,322	243,839	240,007	240,252	246,855	1,177
2014	—	—	—	305,033	281,496	267,795	262,696	261,522	258,791	250,617	1,442
2015	—	—	—	—	375,399	359,662	336,705	325,719	314,389	310,317	5,495
2016	—	—	—	—	—	460,422	473,708	457,052	438,040	419,308	18,718
2017	—	—	—	—	—	—	1,649,071	1,467,835	1,360,897	1,364,285	276,858
2018	—	—	—	—	—	—	—	957,622	1,062,871	1,051,617	183,781
2019	—	—	—	—	—	—	—	—	1,014,100	978,600	427,179
2020	—	—	—	—	—	—	—	—	—	1,552,079	1,246,937
Total										\$ 7,881,758	\$ 2,188,508

Cumulative Paid Claims and Claim Expenses, Net of Reinsurance											
Accident Year	For the year ended December 31,										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	
2011	\$ 305,318	\$ 627,932	\$ 1,025,947	\$ 1,188,978	\$ 1,278,942	\$ 1,303,092	\$ 1,326,439	\$ 1,332,319	\$ 1,339,798	\$ 1,346,335	
2012	—	166,143	206,440	254,924	281,594	293,008	307,845	311,179	316,691	317,291	
2013	—	—	81,344	158,689	196,171	212,431	220,333	223,822	227,412	232,882	
2014	—	—	—	107,075	185,934	224,960	236,789	243,862	247,578	247,165	
2015	—	—	—	—	127,314	228,285	262,702	282,362	293,140	297,004	
2016	—	—	—	—	—	120,478	260,902	329,543	354,088	374,565	
2017	—	—	—	—	—	—	534,752	665,330	823,683	958,207	
2018	—	—	—	—	—	—	—	432,075	454,553	667,336	
2019	—	—	—	—	—	—	—	—	160,915	377,564	
2020	—	—	—	—	—	—	—	—	—	242,624	
Total										\$ 5,060,973	
										Outstanding liabilities from accident year 2010 and prior, net of reinsurance	113,550
										Adjustment for unallocated loss adjustment expenses	13,717
										Unamortized fair value adjustments recorded in connection with acquisitions	(11,795)
										Liability for claims and claim expenses, net of reinsurance	\$ 2,936,257

Casualty and Specialty Segment

The Company offers its casualty and specialty reinsurance products principally on a proportional basis, and it also provides excess of loss coverage. The Company offers casualty and specialty reinsurance products to insurance and reinsurance companies and provides coverage for specific geographic regions or on a worldwide basis. Principally all of the business is reinsurance, although the Company also writes insurance business.

As with the Company's Property segment, its Casualty and Specialty segment reinsurance contracts can include coverage for relatively large limits or exposures. As a result, the Company's casualty and specialty reinsurance business can be subject to significant claims volatility. In periods of low claims frequency or severity, the Company's results will generally be favorably impacted while in periods of high claims frequency or severity the Company's results will generally be negatively impacted.

The Company's processes and methodologies in respect of loss estimation for the coverages offered through its Casualty and Specialty segment differ from those used for its Property segment. For example, the Company's casualty and specialty coverages are more likely to be impacted by factors such as long-term inflation and changes in the social and legal environment, which the Company believes gives rise to

greater uncertainty in its reserves for claims and claim expenses. Moreover, in many lines of business the Company does not have the benefit of a significant amount of its own historical experience and may have little or no related corporate reserving history in many of its newer or growing lines of business. The Company believes this makes its Casualty and Specialty segment reserving subject to greater uncertainty than its Property segment.

The Company calculates multiple point estimates for claims and claim expense reserves using a variety of actuarial reserving techniques for many, but not all, of its classes of business for each underwriting year within the Casualty and Specialty segment. The Company does not believe that these multiple point estimates are, or should be considered, a range. Rather, the Company considers each class of business and determines the most appropriate point estimate for each underwriting year based on the characteristics of the particular class including: (1) loss development patterns derived from historical data; (2) the credibility of the selected loss development pattern; (3) the stability of the loss development patterns; (4) how developed the underwriting year is; and (5) the observed loss development of other underwriting years for the same class. The Company also considers other relevant factors, including: (1) historical ultimate loss ratios; (2) the presence of individual large losses; and (3) known occurrences that have not yet resulted in reported losses. The Company makes determinations of the most appropriate point estimate of loss for each class based on an evaluation of relevant information and do not ascribe any particular portion of the estimate to a particular factor or consideration. In addition, the Company believes that a review of individual contract information improves the loss estimates for some classes of business.

When developing claims and claims expense reserves for its Casualty and Specialty segment, the Company considers several actuarial techniques such as the expected loss ratio method, the Bornhuetter-Ferguson actuarial method and the paid and reported chain ladder actuarial method.

For classes of business and underwriting years where the Company has limited historical claims experience, estimates of ultimate losses are generally initially determined based on the loss ratio method applied to each underwriting year and to each class of business. Unless the Company has credible claims experience or unfavorable development, it generally selects an ultimate loss based on its initial view of the loss. The selected ultimate losses are determined by multiplying the initial expected loss ratio by the earned premium. The initial expected loss ratios are key inputs that involve management judgment and are based on a variety of factors, including: (1) contract by contract expected loss ratios developed during the Company's pricing process; (2) historical loss ratios and combined ratios adjusted for rate change and trend; and (3) industry benchmarks for similar business. These judgments take into account management's view of past, current and future factors that may influence ultimate losses, including: (1) market conditions; (2) changes in the business underwritten; (3) changes in timing of the emergence of claims; and (4) other factors that may influence ultimate loss ratios and losses.

The determination of when reported losses are sufficient and credible to warrant selection of an ultimate loss ratio different from the initial expected loss ratio also requires judgment. The Company generally makes adjustments for reported loss experience indicating unfavorable variances from initial expected loss ratios sooner than reported loss experience indicating favorable variances. This is because the reporting of losses in excess of expectations tends to have greater credibility than an absence or lower than expected level of reported losses. Over time, as a greater number of claims are reported and the credibility of reported losses improves, actuarial estimates of IBNR are typically based on the Bornhuetter-Ferguson actuarial method or the reported chain ladder actuarial method.

The Bornhuetter-Ferguson method allows for greater weight to be applied to expected results in periods where little or no actual experience is available, and, hence, is less susceptible to the potential pitfall of being excessively swayed by experience of actual paid and/or reported loss data, compared to the chain ladder actuarial method. The Bornhuetter-Ferguson method uses the initial expected loss ratio to estimate IBNR, and it assumes that past experience is not fully representative of the future. As the Company's reserves for claims and claim expenses age, and actual claims experience becomes available, this method places less weight on expected experience and places more weight on actual experience. This experience, which represents the difference between expected reported claims and actual reported claims, is reflected in the respective reporting period as a change in estimate. The utilization of the Bornhuetter-Ferguson method requires the Company to estimate an expected ultimate claims and claim expense ratio and select an expected loss reporting pattern. The Company selects its estimates of the expected ultimate claims and claim expense ratios as described above and selects its expected loss reporting patterns by utilizing

actuarial analysis, including management's judgment, and historical patterns of paid losses and reporting of case reserves to the Company, as well as industry loss development patterns. The estimated expected claims and claim expense ratio may be modified to the extent that reported losses at a given point in time differ from what would be expected based on the selected loss reporting pattern.

The reported chain ladder actuarial method utilizes actual reported losses and a loss development pattern to determine an estimate of ultimate losses that is independent of the initial expected ultimate loss ratio and earned premium. The Company believes this technique is most appropriate when there are a large number of reported losses with significant statistical credibility and a relatively stable loss development pattern. Information that may cause future loss development patterns to differ from historical loss development patterns is considered and reflected in the Company's selected loss development patterns as appropriate. For certain reinsurance contracts, historical loss development patterns may be developed from ceding company data or other sources.

In addition, certain specialty coverages may be impacted by natural and man-made catastrophes. The Company estimates reserves for claim and claim expenses for these losses, following a process that is similar to its Property segment described above.

The following table details the Company's Casualty and Specialty segment incurred claims and claim expenses and cumulative paid claims and claim expenses as of December 31, 2020, net of reinsurance, as well as IBNR plus ACR included within the net incurred claims amounts.

Incurred Claims and Claim Expenses, Net of Reinsurance											
For the year ended December 31,											At December 31, 2020
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	IBNR and ACR
	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)		
2011	\$ 428,832	\$ 431,776	\$ 404,413	\$ 375,306	\$ 368,080	\$ 360,420	\$ 348,761	\$ 355,936	\$ 362,223	\$ 358,371	\$ 19,047
2012	—	580,296	595,113	565,322	553,950	542,542	556,300	570,780	580,366	572,594	30,314
2013	—	—	597,712	596,555	567,832	543,326	530,256	515,405	498,721	489,802	21,450
2014	—	—	—	705,223	700,520	704,634	685,528	667,726	668,011	641,980	61,370
2015	—	—	—	—	771,338	791,751	830,864	811,034	817,645	834,879	106,429
2016	—	—	—	—	—	968,634	1,001,832	1,000,773	1,016,177	984,205	118,103
2017	—	—	—	—	—	—	1,317,200	1,294,009	1,330,123	1,320,765	266,399
2018	—	—	—	—	—	—	—	1,268,346	1,318,108	1,343,050	472,726
2019	—	—	—	—	—	—	—	—	1,220,627	1,250,528	740,556
2020	—	—	—	—	—	—	—	—	—	1,428,311	1,215,429
Total										\$ 9,224,485	\$ 3,051,823
Cumulative Paid Claims and Claim Expenses, Net of Reinsurance											
For the year ended December 31,											
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)		
2011	\$ 64,765	\$ 138,726	\$ 178,865	\$ 209,875	\$ 242,724	\$ 263,682	\$ 279,652	\$ 294,549	\$ 302,892	\$ 308,178	
2012	—	102,809	212,802	270,284	318,102	358,395	418,347	447,086	472,590	481,195	
2013	—	—	52,012	187,020	244,095	291,172	342,431	373,128	397,744	412,373	
2014	—	—	—	124,591	252,707	336,314	401,100	455,758	499,491	530,075	
2015	—	—	—	—	135,732	270,831	401,511	498,625	584,219	651,783	
2016	—	—	—	—	—	167,743	368,992	507,479	624,588	715,235	
2017	—	—	—	—	—	—	213,962	412,515	554,013	774,021	
2018	—	—	—	—	—	—	—	157,282	364,620	590,273	
2019	—	—	—	—	—	—	—	—	127,520	324,418	
2020	—	—	—	—	—	—	—	—	—	148,101	
Total										\$ 4,935,652	
											Outstanding liabilities from accident year 2010 and prior, net of reinsurance
											251,744
											Adjustment for unallocated loss adjustment expenses
											43,821
											Unamortized fair value adjustments recorded in connection with acquisitions
											(66,035)
											Liability for claims and claim expenses, net of reinsurance
											\$ 4,518,363

Prior Year Development of the Reserve for Net Claims and Claim Expenses

The Company's estimates of claims and claim expense reserves are not precise in that, among other things, they are based on predictions of future developments and estimates of future trends and other variable factors. Some, but not all, of the Company's reserves are further subject to the uncertainty inherent in actuarial methodologies and estimates. Because a reserve estimate is simply an insurer's estimate at a point in time of its ultimate liability, and because there are numerous factors that affect reserves and claims payments that cannot be determined with certainty in advance, the Company's ultimate payments will vary, perhaps materially, from its estimates of reserves. If the Company determines in a subsequent period that adjustments to its previously established reserves are appropriate, such adjustments are recorded in the period in which they are identified. On a net basis, the Company's cumulative favorable or unfavorable development is generally reduced by offsetting changes in its reinsurance recoverable, as well as changes to loss related premiums such as reinstatement premiums and redeemable noncontrolling interest, all of which generally move in the opposite direction to changes in the Company's ultimate claims and claim expenses.

The following table details the Company's prior year net development by segment of its liability for net unpaid claims and claim expenses:

Year ended December 31,	2020	2019	2018
	(Favorable) adverse development	(Favorable) adverse development	(Favorable) adverse development
Property	\$ (157,261)	\$ (2,933)	\$ (221,290)
Casualty and Specialty	(26,763)	(23,882)	(49,262)
Other	212	(40)	(197)
Total net favorable development of prior accident years net claims and claim expenses	<u>\$ (183,812)</u>	<u>\$ (26,855)</u>	<u>\$ (270,749)</u>

Changes to prior year estimated net claims reserves increased net income by \$183.8 million during 2020 (2019 - increased net income by \$26.9 million, 2018 - increased net income by \$270.7 million), excluding the consideration of changes in reinstatement, adjustment or other premium changes, profit commissions, redeemable noncontrolling interest - DaVinciRe and income tax.

Property Segment

The following tables detail the development of the Company's liability for net unpaid claims and claim expenses for its Property segment, allocated between large and small catastrophe net claims and claim expenses and attritional net claims and claim expenses, included in the other line item:

<u>Year ended December 31,</u>	<u>2020</u>
	(Favorable) adverse development
Catastrophe net claims and claim expenses	
<i>Large catastrophe events</i>	
2019 Large Loss Events	\$ (44,389)
2018 Large Loss Events	(43,991)
2017 Large Loss Events	(32,649)
Other	124
<i>Total large catastrophe events</i>	<u>(120,905)</u>
<i>Small catastrophe events and attritional loss movements</i>	
Other small catastrophe events and attritional loss movements	(41,801)
<i>Total small catastrophe events and attritional loss movements</i>	<u>(41,801)</u>
Total catastrophe and attritional net claims and claim expenses	(162,706)
Actuarial assumption changes	5,445
Total net favorable development of prior accident years net claims and claim expenses	<u>\$ (157,261)</u>

The net favorable development of prior accident years net claims and claim expenses within the Company's Property segment in 2020 of \$157.3 million was primarily comprised of net favorable development on prior year accident years net claims and claim expenses associated with the following large catastrophe events:

- \$44.4 million associated with Hurricane Dorian and Typhoon Faxai, Typhoon Hagibis and certain losses associated with aggregate loss contracts (collectively, the "2019 Large Loss Events");
- \$44.0 million associated with Typhoons Jebi, Mangkhut and Trami, Hurricane Florence, the wildfires in California during the third and fourth quarters of 2018, Hurricane Michael and certain losses associated with aggregate loss contracts (collectively, the "2018 Large Loss Events"); and
- \$32.6 million associated with Hurricanes Harvey, Irma and Maria, the Mexico City Earthquake, the wildfires in California during the fourth quarter of 2017 and certain losses associated with aggregate loss contracts (collectively, the "2017 Large Loss Events").

The Company's Property segment also experienced net favorable development of \$41.8 million associated with a number of other small catastrophe events as well as attritional loss movements related to lines of business where the Company principally estimates net claims and claim expenses using traditional actuarial methods. Partially offsetting these net favorable developments was net adverse development of \$5.4 million related to actuarial assumption changes.

<u>Year ended December 31,</u>	<u>2019</u>
	(Favorable) adverse development
Catastrophe net claims and claim expenses	
<i>Large catastrophe events</i>	
2017 Large Loss Events	\$ (101,572)
New Zealand Earthquake (2011)	(7,497)
Tohoku Earthquake and Tsunami (2011)	(5,198)
New Zealand Earthquake (2010)	47,071
2018 Large Loss Events	81,555
Other	(31,916)
<i>Total large catastrophe events</i>	<u>(17,557)</u>
<i>Small catastrophe events and attritional loss movements</i>	
Other small catastrophe events and attritional loss movements	5,379
<i>Total small catastrophe events and attritional loss movements</i>	<u>5,379</u>
Total catastrophe and attritional net claims and claim expenses	(12,178)
Actuarial assumption changes	9,245
Total net favorable development of prior accident years net claims and claim expenses	<u>\$ (2,933)</u>

The net favorable development of prior accident years net claims and claim expenses within the Company's Property segment in 2019 of \$2.9 million was comprised of net favorable development of \$17.6 million related to large catastrophe events, net adverse development of \$5.4 million related to small catastrophe events and attritional loss movements and \$9.2 million of net adverse development associated with actuarial assumption changes. Included in net favorable development of prior accident years net claims and claim expenses from large events was \$101.6 million of decreases in the net estimated ultimate losses associated with the 2017 Large Loss Events, partially offset by \$81.6 million of increases in the net estimated ultimate losses associated with the 2018 Large Loss Events and \$47.1 million of net increases in the estimated ultimate losses associated with the 2010 New Zealand Earthquake.

<u>Year ended December 31,</u>	<u>2018</u>
	(Favorable) adverse development
Catastrophe net claims and claim expenses	
<i>Large catastrophe events</i>	
2017 Large Loss Events	\$ (172,512)
Other	(9,517)
<i>Total large catastrophe events</i>	<u>(182,029)</u>
<i>Small catastrophe events and attritional loss movements</i>	
Other small catastrophe events and attritional loss movements	(33,579)
<i>Total small catastrophe events and attritional loss movements</i>	<u>(33,579)</u>
Total catastrophe and attritional net claims and claim expenses	(215,608)
Actuarial assumption changes	(5,682)
Total net favorable development of prior accident years net claims and claim expenses	<u>\$ (221,290)</u>

The net favorable development of prior accident years net claims and claim expenses within the Company's Property segment in 2018 of \$221.3 million was comprised of net favorable development of \$182.0 million related to large catastrophe events, net favorable development of \$33.6 million related to small catastrophe events and attritional loss movements and \$5.7 million of net favorable development associated with

actuarial assumption changes. Included in net favorable development of prior accident years net claims and claim expenses from large events was \$172.5 million of decreases in the net estimated ultimate losses associated with the 2017 Large Loss Events. The Company's Property segment also experienced net favorable development of \$33.6 million associated with a number of other small catastrophe events as well as attritional loss movements related to lines of business where the Company principally estimates net claims and claim expenses using traditional actuarial methods.

Casualty and Specialty Segment

The following table details the development of the Company's liability for unpaid claims and claim expenses for its Casualty and Specialty segment:

<u>Year ended December 31,</u>	2020	2019	2018
	(Favorable) adverse development	(Favorable) adverse development	(Favorable) adverse development
Actuarial methods - actual reported claims less than expected claims	\$ (29,280)	\$ (52,796)	\$ (41,476)
Actuarial assumption changes	2,517	28,914	(7,786)
Total net favorable development of prior accident years net claims and claim expenses	\$ (26,763)	\$ (23,882)	\$ (49,262)

The net favorable development of prior accident years net claims and claim expenses within the Company's Casualty and Specialty segment in 2020 of \$26.8 million was due to reported losses generally coming in lower than expected on attritional net claims and claim expenses across a number of lines of business, partially offset by net adverse development associated with certain actuarial assumption changes.

The net favorable development of prior accident years net claims and claim expenses within the Company's Casualty and Specialty segment in 2019 of \$23.9 million was driven by reported losses generally coming in lower than expected on attritional net claims and claim expenses, partially offset by adverse development associated with certain assumption changes across a number of lines of business.

The net favorable development of prior accident years net claims and claim expenses within the Company's Casualty and Specialty segment in 2018 of \$49.3 million was driven by reported losses generally coming in lower than expected on attritional net claims and claim expenses and certain assumption changes across a number of lines of business.

Reconciliation of the Disclosure of Incurred and Paid Claims Development to the Reserve for Claims and Claim Expenses

The reconciliation of the net incurred and paid claims development tables to the reserve for claims and claim expenses in the consolidated balance sheet is as follows:

<u>At December 31, 2020</u>	
Net Reserve for Claims and Claim Expenses	
Property	\$ 2,936,257
Casualty and Specialty	4,518,363
Other	508
Total net reserve for claims and claim expenses	7,455,128
Reinsurance Recoverable	
Property	\$ 1,435,488
Casualty and Specialty	1,490,322
Other	200
Total reinsurance recoverable	2,926,010
Total reserve for claims and claim expenses	\$ 10,381,138

Historical Claims Duration

The following is unaudited supplementary information about average historical claims duration by segment:

At December 31, 2020	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance (Number of Years)									
	1	2	3	4	5	6	7	8	9	10
Property	28.9 %	17.9 %	18.6 %	9.2 %	5.0 %	2.0 %	1.4 %	0.9 %	0.5 %	0.5 %
Casualty and Specialty	14.0 %	17.8 %	13.4 %	12.0 %	9.2 %	7.7 %	4.8 %	3.9 %	1.8 %	1.5 %

Claims Frequency

Each of the Company's reportable segments are broadly considered to be assumed reinsurance, where multiple claims are often aggregated, perhaps multiple times through retrocessional reinsurance, before ultimately being ceded to the Company. In addition, the nature, size, terms and conditions of contracts entered into by the Company changes from one accident year to the next and the quantum of contractual or policy limits, and accordingly the potential amount of claims and claim expenses associated with a reported claim, can range from nominal, to significant. These factors can impact the amount and timing of the claims and claim expenses to be recorded and accordingly, developing claim frequency information is highly subjective and is not prepared or utilized for internal purposes. In addition, the Company does not have direct access to claim frequency information underlying certain of its proportional contracts given the nature of that business. As a result, the Company does not believe providing claim frequency information is practicable as it relates to its proportional contracts.

Notwithstanding the factors noted above, the Company has developed claims frequency information associated with its excess of loss reinsurance contracts. As each accident year develops, the Company would expect the cumulative number of reported claims to increase in certain of its excess of loss reinsurance contracts, most notably in its Casualty and Specialty segment. In determining claims frequency for its excess of loss reinsurance contracts, the Company has made the following assumptions:

- Claims below the insured layer of a contract are excluded;
- If an insured loss event results in claims associated with a number of layers of a contract, the Company would consider this to be a single claim; and
- If an insured loss event results in claims associated with a number of the Company's operating subsidiaries, the Company considers each operating subsidiary to have a reported claim.

The following table details the Company's cumulative number of reported claims for its excess of loss reinsurance contracts allocated by segment:

Accident Year	At December 31, 2020	
	Cumulative Number of Reported Claims	
	Property	Casualty and Specialty
2011	1,394	2,014
2012	922	2,402
2013	803	2,877
2014	762	3,666
2015	772	4,090
2016	1,178	4,600
2017	2,529	3,934
2018	2,418	2,973
2019	1,493	2,080
2020	1,297	612

Assumed Reinsurance Contracts Classified As Deposit Contracts

Net claims and claim expenses incurred were reduced by \$0.4 million during 2020 (2019 – \$Nil, 2018 – \$0.2 million) related to income earned on assumed reinsurance contracts that were classified as deposit contracts with underwriting risk only. Other income was increased by \$1.0 million during 2020 (2019 – \$1.3 million, 2018 – \$11.2 million) related to premiums and losses incurred on assumed reinsurance contracts that were classified as deposit contracts with timing risk only. Aggregate deposit liabilities of \$7.5 million are included in reinsurance balances payable at December 31, 2020 (2019 – \$9.0 million) and aggregate deposit assets of \$Nil are included in other assets at December 31, 2020 (2019 – \$Nil) associated with these contracts.

NOTE 9. DEBT AND CREDIT FACILITIES

Debt Obligations

A summary of the Company's debt obligations on its consolidated balance sheets is set forth below:

	December 31, 2020		December 31, 2019	
	Fair Value	Carrying Value	Fair Value	Carrying Value
3.600% Senior Notes due 2029	\$ 453,932	\$ 392,391	\$ 424,920	\$ 391,475
3.450% Senior Notes due 2027	329,661	296,787	314,070	296,292
3.700% Senior Notes due 2025	315,273	298,428	318,567	298,057
5.750% Senior Notes due 2020	—	—	251,030	249,931
4.750% Senior Notes due 2025 (DaVinciRe) (1)	162,203	148,659	160,031	148,350
Total debt	\$ 1,261,069	\$ 1,136,265	\$ 1,468,618	\$ 1,384,105

(1) RenaissanceRe owns a noncontrolling economic interest in its joint venture DaVinciRe. Because RenaissanceRe controls a majority of DaVinciRe's outstanding voting rights, the consolidated financial statements of DaVinciRe are included in the consolidated financial statements of RenaissanceRe. However, RenaissanceRe does not guarantee or provide credit support for DaVinciRe and RenaissanceRe's financial exposure to DaVinciRe is limited to its investment in DaVinciRe's shares and counterparty credit risk arising from reinsurance transactions.

3.600% Senior Notes Due 2029

On April 2, 2019, RenaissanceRe issued \$400.0 million principal amount of its 3.600% Senior Notes due April 15, 2029, with interest on the notes payable on April 15 and October 15 of each year, commencing on October 15, 2019. The notes are redeemable at the applicable redemption price, subject to the terms described in the indenture for the notes. However, the notes may not be redeemed prior to April 15, 2022 without approval from the Bermuda Monetary Authority (the "BMA") and may not be redeemed at any time prior to their maturity if enhanced capital requirements, as established by the BMA, would be breached immediately before or after giving effect to the redemption of such notes, unless, in each case, RenaissanceRe replaces the capital represented by the notes to be redeemed with capital having equal or better capital treatment as the notes under applicable BMA rules. The notes contain various covenants including limitations on mergers and consolidations, and restrictions as to the disposition of, and the placing of liens on, the stock of designated subsidiaries. The net proceeds from this offering were used to repay, in full, the \$200.0 million outstanding under the Company's revolving credit facility at March 31, 2019, which the Company used to partially fund the purchase price for the TMR Stock Purchase, and the remainder of the net proceeds was used for general corporate purposes. Refer to "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of TMR.

3.450% Senior Notes due 2027 of RenaissanceRe Finance Inc.

On June 29, 2017, RenaissanceRe Finance Inc. ("RenaissanceRe Finance") issued \$300.0 million principal amount of its 3.450% Senior Notes due July 1, 2027, with interest on the notes payable on July 1 and January 1 of each year. The notes are fully and unconditionally guaranteed by RenaissanceRe and may be redeemed by RenaissanceRe Finance prior to maturity, subject to the payment of a "make-whole" premium if the notes are redeemed prior to April 1, 2027. The notes contain various covenants, including limitations

on mergers and consolidations, and restrictions as to the disposition of, and the placing of liens on, stock of designated subsidiaries.

3.700% Senior Notes due 2025 of RenaissanceRe Finance

On March 24, 2015, RenaissanceRe Finance issued \$300.0 million principal amount of its 3.700% Senior Notes due April 1, 2025, with interest on the notes payable on April 1 and October 1 of each year. The notes are fully and unconditionally guaranteed by RenaissanceRe and may be redeemed by RenaissanceRe Finance prior to maturity, subject to the payment of a “make-whole” premium if the notes are redeemed prior to January 1, 2025. The notes contain various covenants, including limitations on mergers and consolidations, and restrictions as to the disposition of, and the placing of liens on, stock of designated subsidiaries.

The net proceeds from the offering of the notes (together with cash on hand) were applied by RenaissanceRe to repay in full a \$300.0 million bridge loan that Barclays Bank PLC provided to RenaissanceRe on February 25, 2015 in order to finance a portion of the cash consideration paid by RenaissanceRe in connection with the acquisition of Platinum.

5.75% Senior Notes due 2020 of RenRe North America Holdings Inc. and RenaissanceRe Finance

On March 17, 2010, RenRe North America Holdings Inc. (“RRNAH”) issued \$250.0 million principal amount of its 5.75% Senior Notes due March 15, 2020 (the “RRNAH Notes”), with interest on the notes payable on March 15 and September 15 of each year. RenaissanceRe Finance became a co-obligor of the notes as of July 3, 2015. On March 15, 2020, the Company repaid in full at maturity the aggregate principal amount of \$250.0 million, plus applicable accrued interest, of the 5.75% Senior Notes due 2020 of RenRe North America Holdings Inc. and RenaissanceRe Finance. The notes, which were senior obligations, were fully and unconditionally guaranteed by RenaissanceRe.

DaVinciRe Senior Notes

On May 4, 2015, DaVinciRe issued \$150.0 million principal amount of its 4.750% Senior Notes due May 1, 2025, with interest on the notes payable on May 1 and November 1, commencing with November 1, 2015 (the “DaVinciRe Senior Notes”). The DaVinciRe Senior Notes, which are senior obligations, may be redeemed prior to maturity, subject to the payment of a “make-whole” premium if the notes are redeemed before February 1, 2025. The DaVinciRe Senior Notes contain various covenants including restrictions as to the disposition of, and the placing of liens on, the stock of designated subsidiaries, limitations on mergers, amalgamations and consolidations, limitations on third-party investor redemptions, a leverage covenant and a covenant to maintain certain ratings. The net proceeds from this offering were used to repay, in full, \$100.0 million outstanding under the loan agreement, dated as of March 30, 2011, between DaVinciRe and RenaissanceRe, and the remainder of the net proceeds were used for general corporate purposes.

Scheduled Debt Maturity

The following table sets forth the scheduled maturity of the Company's aggregate amount of its debt obligation reflected on its consolidated balance sheet at December 31, 2020:

2021	\$	—
2022		—
2023		—
2024		—
2025		450,000
After 2025		700,000
Unamortized discount and debt issuance expenses		(13,735)
	\$	<u>1,136,265</u>

Credit Facilities

The outstanding amounts issued or drawn under each of the Company's significant credit facilities is set forth below:

<u>At December 31, 2020</u>	<u>Issued or Drawn</u>
Revolving Credit Facility (1)	\$ —
Bilateral Letter of Credit Facilities	
Secured	407,407
Unsecured	448,193
Funds at Lloyd's Letter of Credit Facility	225,000
	<u>\$ 1,080,600</u>

(1) At December 31, 2020, no amounts were issued or drawn under this facility.

Revolving Credit Facility

RenaissanceRe, Renaissance Reinsurance, RenaissanceRe Specialty U.S., Renaissance Reinsurance U.S. and RREAG are parties to a second amended and restated credit agreement dated November 9, 2018 (as amended, the "Revolving Credit Agreement") with various banks, financial institutions and Wells Fargo Bank, National Association ("Wells Fargo") as administrative agent, which amended and restated a previous credit agreement. The Revolving Credit Agreement provides for a revolving commitment to RenaissanceRe of \$500.0 million, with a right, subject to satisfying certain conditions, to increase the size of the facility to \$700.0 million. Amounts borrowed under the Revolving Credit Agreement bear interest at a rate selected by RenaissanceRe equal to the Base Rate or LIBOR (each as defined in the Revolving Credit Agreement) plus a margin. In addition to revolving loans, the Revolving Credit Agreement provides that the entire facility will also be available for the issuance of standby letters of credit, subject to the terms and conditions set forth therein, and swingline loans, which are capped at \$50.0 million for each of the swingline lenders. At December 31, 2020, RenaissanceRe had \$Nil outstanding under the Revolving Credit Agreement.

The Revolving Credit Agreement contains representations, warranties and covenants customary for bank loan facilities of this type, including limits on the ability of RenaissanceRe and its subsidiaries to merge, consolidate, sell a substantial amount of assets, incur liens and declare or pay dividends under certain circumstances. The Revolving Credit Agreement also contains certain financial covenants which generally provide that the ratio of consolidated debt to capital shall not exceed 0.35:1 and that the consolidated net worth of RenaissanceRe shall equal or exceed approximately \$2.9 billion, subject to an annual adjustment.

If certain events of default occur, in some circumstances the lenders' obligations to make loans may be terminated and the outstanding obligations of RenaissanceRe under the Revolving Credit Agreement may be accelerated. The scheduled commitment maturity date of the Revolving Credit Agreement is November 9, 2023.

RRNAH and RenaissanceRe Finance guarantee RenaissanceRe's obligations under the Revolving Credit Agreement. Subject to certain exceptions, additional subsidiaries of RenaissanceRe are required to become guarantors if such subsidiaries issue or incur certain types of indebtedness.

Bilateral Letter of Credit Facilities

Uncommitted, Secured Standby Letter of Credit Facility with Wells Fargo

RenaissanceRe and certain of its subsidiaries and affiliates, including Renaissance Reinsurance, DaVinci, Renaissance Reinsurance U.S. and RREAG are parties to an Amended and Restated Standby Letter of Credit Agreement dated June 21, 2019, as amended, with Wells Fargo, which provides for a secured, uncommitted facility under which letters of credit may be issued from time to time for the respective accounts of the subsidiaries. Pursuant to the agreement, the applicants may request secured letter of credit issuances, and also have an option to request the issuance of up to \$100.0 million of unsecured letters of credit (outstanding on such request date). RenaissanceRe has unconditionally guaranteed the payment obligations of the applicants other than DaVinci.

The agreement contains representations, warranties and covenants that are customary for facilities of this type. Under the agreement, each applicant is required to pledge eligible collateral having a value sufficient to cover all of its obligations under the agreement with respect to secured letters of credit issued for its account. In the case of an event of default under the agreement, Wells Fargo may exercise certain remedies, including conversion of collateral of a defaulting applicant into cash.

At December 31, 2020, there were \$111.9 million of secured letters of credit outstanding and \$Nil of unsecured letters of credit outstanding under this agreement.

Secured Letter of Credit Facility with Citibank Europe

Certain subsidiaries and affiliates of RenaissanceRe, including Renaissance Reinsurance, DaVinci, Renaissance Reinsurance of Europe Unlimited Company, RenaissanceRe Specialty U.S., Renaissance Reinsurance U.S. and RREAG, are parties to a facility letter, dated September 17, 2010, as amended, with Citibank Europe plc ("Citibank Europe"), pursuant to which Citibank Europe has established a letter of credit facility under which Citibank Europe provides a commitment to issue letters of credit for the accounts of the participants in multiple currencies. The aggregate commitment amount is \$300.0 million, subject to a sublimit of \$25.0 million for letters of credit issued for the account of Renaissance Reinsurance U.S.

The letter of credit facility is scheduled to expire on December 31, 2022. At all times during which it is a party to the facility, each participant is obligated to pledge to Citibank Europe securities with a value that equals or exceeds the aggregate face amount of its then-outstanding letters of credit. In the case of an event of default under the facility with respect to a participant, Citibank Europe may exercise certain remedies, including terminating its commitment to such participant and taking certain actions with respect to the collateral pledged by such participant (including the sale thereof). In the facility letter, each participant makes representations and warranties that are customary for facilities of this type and agrees that it will comply with certain informational and other undertakings.

At December 31, 2020, \$295.5 million aggregate face amount of letters of credit was outstanding and, subject to the sublimits described above, \$4.5 million remained unused and available to the participants under this facility.

Uncommitted, Unsecured Letter of Credit Facility with Citibank Europe

Renaissance Reinsurance, RenaissanceRe Specialty U.S., Renaissance Reinsurance U.S. and RREAG are parties to a Master Agreement for Issuance of Payment Instruments and a Facility Letter for Issuance of Payment Instruments with Citibank Europe dated March 22, 2019, as amended, which established an uncommitted, unsecured letter of credit facility pursuant to which Citibank Europe or one of its correspondents may issue standby letters of credit or similar instruments in multiple currencies for the account of one or more of the applicants. The obligations of the applicants under this facility are guaranteed by RenaissanceRe.

Pursuant to the master agreement, each applicant makes representations and warranties that are customary for facilities of this type and agrees that it will comply with certain informational and other

customary undertakings. The master agreement contains events of default customary for facilities of this type. In the case of an event of default under the facility, Citibank Europe may exercise certain remedies, including requiring that the relevant applicant pledge cash collateral in an amount equal to the maximum actual and contingent liability of the issuing bank under the letters of credit and similar instruments issued for such applicant under the facility, and taking certain actions with respect to the collateral pledged by such applicant (including the sale thereof). In addition, Citibank Europe may require that the relevant applicant pledge cash collateral if certain minimum ratings are not satisfied.

At December 31, 2020, the aggregate face amount of the payment instruments issued and outstanding under this facility was \$262.4 million.

Unsecured Letter of Credit Facility with Credit Suisse

RREAG and RenaissanceRe are parties to an amended and restated letter of credit facility agreement with Credit Suisse (Switzerland) Ltd. ("Credit Suisse") dated March 22, 2019, as amended, which provides for a \$200.0 million committed, unsecured letter of credit facility pursuant to which Credit Suisse (or any other fronting bank acting on behalf of Credit Suisse) may issue letters of credit or similar instruments in multiple currencies for the account of RREAG. The obligations of RREAG under the agreement are guaranteed by RenaissanceRe. The facility is scheduled to expire on December 21, 2022.

In the agreement, RREAG and RenaissanceRe make representations, warranties and covenants that are customary for facilities of this type, and agree to comply with certain informational and other customary undertakings. The agreement also contains certain financial covenants applicable to the RenaissanceRe, including the requirement to maintain the ratio of consolidated debt to capital of not more than 0.35:1, to maintain a minimum consolidated net worth initially of approximately \$3.0 billion, subject to an annual adjustment, and to maintain RenaissanceRe's credit rating with S&P and A.M. Best of at least A-.

The agreement contains events of default customary for facilities of this type. At any time on or after the occurrence of an event of default, Credit Suisse may exercise remedies, including canceling the commitment, requiring that RREAG pledge cash collateral in an amount equal to the maximum liability of the issuing bank under the letters of credit and similar instruments issued under the agreement, and demanding that RREAG procure the release by the beneficiaries of the letters of credit and similar instruments issued under the agreement.

At December 31, 2020, letters of credit issued by Credit Suisse under the agreement were outstanding in the face amount of \$185.8 million.

Funds at Lloyd's Letter of Credit Facility

Renaissance Reinsurance is party to an Amended and Restated Letter of Credit Reimbursement Agreement dated November 7, 2019, as amended, with Bank of Montreal, Citibank Europe and ING Bank N.V., which provides a facility under which letters of credit may be issued from time to time to support business written by Renaissance Reinsurance's Lloyd's syndicate, Syndicate 1458. Effective October 30, 2020, the stated amount of the outstanding Funds at Lloyd's letter of credit decreased from \$290.0 million to \$225.0 million. Renaissance Reinsurance may request that the outstanding letter of credit be amended to increase the stated amount or that a new letter of credit denominated in U.S. dollars be issued, in an aggregate amount for all such increases or issuances not to exceed \$140.0 million. The facility terminates four years from the date of notice from the lenders to the beneficiary of the letter of credit, unless extended.

Generally, Renaissance Reinsurance is not required to post any collateral for letters of credit issued pursuant to this facility. However, following the occurrence of a partial collateralization event or a full collateralization event, as provided in the agreement, Renaissance Reinsurance is required to pledge eligible securities with a collateral value of at least 60% or 100%, respectively, of the aggregate amount of its then-outstanding letters of credit. The latest date upon which Renaissance Reinsurance will become obligated to collateralize the facility at 100% is December 31, 2021.

In the agreement, Renaissance Reinsurance makes representations and warranties that are customary for facilities of this type and agrees that it will comply with certain informational undertakings and other covenants, including maintaining a minimum net worth. In the case of an event of default under the FAL facility, the lenders may exercise certain remedies, including declaring all outstanding obligations of Renaissance Reinsurance under the agreement and related credit documents due and payable and taking

certain actions with respect to the collateral pledged by Renaissance Reinsurance (including the sale thereof).

At December 31, 2020, the face amount of the outstanding letter of credit issued under the FAL facility was \$225.0 million.

Top Layer Re

Renaissance Reinsurance is party to a collateralized letter of credit and reimbursement agreement in the amount of \$37.5 million that supports the Company's Top Layer Re joint venture. Renaissance Reinsurance is obligated to make a mandatory capital contribution of up to \$50.0 million in the event that a loss reduces Top Layer Re's capital below a specified level.

NOTE 10. NONCONTROLLING INTERESTS

A summary of the Company's redeemable noncontrolling interests on its consolidated balance sheets is set forth below:

At December 31,	2020	2019
Redeemable noncontrolling interest - DaVinciRe	\$ 1,560,693	\$ 1,435,581
Redeemable noncontrolling interest - Medici	717,999	632,112
Redeemable noncontrolling interest - Vermeer	1,109,627	1,003,615
Redeemable noncontrolling interests	<u>\$ 3,388,319</u>	<u>\$ 3,071,308</u>

A summary of the Company's redeemable noncontrolling interests on its consolidated statements of operations is set forth below:

Year ended December 31,	2020	2019	2018
Redeemable noncontrolling interest - DaVinciRe	\$ 113,671	\$ 127,084	\$ 27,638
Redeemable noncontrolling interest - Medici	55,970	25,759	13,926
Redeemable noncontrolling interest - Vermeer	61,012	48,626	(11)
Net income attributable to redeemable noncontrolling interests	<u>\$ 230,653</u>	<u>\$ 201,469</u>	<u>\$ 41,553</u>

Redeemable Noncontrolling Interest – DaVinciRe

RenaissanceRe owns a noncontrolling economic interest in DaVinciRe; however, because RenaissanceRe controls a majority of DaVinciRe's outstanding voting rights, the consolidated financial statements of DaVinciRe are included in the consolidated financial statements of the Company and all significant intercompany transactions have been eliminated. The portion of DaVinciRe's earnings owned by third parties is recorded in the consolidated statements of operations as net income attributable to redeemable noncontrolling interests. The Company's noncontrolling economic ownership in DaVinciRe was 21.4% at December 31, 2020 (2019 - 21.9%).

DaVinciRe shareholders are party to a shareholders agreement which provides DaVinciRe shareholders, excluding RenaissanceRe, with certain redemption rights that enable each shareholder to notify DaVinciRe of such shareholder's desire for DaVinciRe to repurchase up to half of such shareholder's initial aggregate number of shares held, subject to certain limitations, such as limiting the aggregate of all share repurchase requests to 25% of DaVinciRe's capital in any given year and satisfying all applicable regulatory requirements. If total shareholder requests exceed 25% of DaVinciRe's capital, the number of shares repurchased will be reduced among the requesting shareholders pro-rata, based on the amounts desired to be repurchased. Shareholders desiring to have DaVinci repurchase their shares must notify DaVinciRe before March 1 of each year. The repurchase price will be based on GAAP book value as of the end of the year in which the shareholder notice is given, and the repurchase will be effective as of January 1 of the following year. The repurchase price is generally subject to a true-up for potential development on outstanding loss reserves after settlement of all claims relating to the applicable years.

2020

Effective January 1, 2020, the Company sold an aggregate of \$10 million of its shares in DaVinciRe to an existing third-party investor. The Company's noncontrolling economic ownership in DaVinciRe subsequent to this transaction was 21.4%.

Refer to "Note 24. Subsequent Events" for additional information related to the Company's noncontrolling economic ownership in DaVinciRe subsequent to December 31, 2020.

2019

Effective June 1, 2019, DaVinciRe completed an equity capital raise of \$349.2 million, comprised of \$263.1 million from third-party investors and \$86.1 million from RenaissanceRe. In addition, RenaissanceRe sold an aggregate of \$11.6 million of its shares in DaVinciRe to a third-party investor. The Company's noncontrolling economic ownership in DaVinciRe subsequent to these transactions was 21.9%, effective June 1, 2019.

The Company expects its noncontrolling economic ownership in DaVinciRe to fluctuate over time.

The activity in redeemable noncontrolling interest – DaVinciRe is detailed in the table below:

Year ended December 31,	2020	2019
Beginning balance	\$ 1,435,581	\$ 1,034,946
Redemption of shares from redeemable noncontrolling interests, net of adjustments	1,450	(1,148)
Sale of shares to redeemable noncontrolling interests	9,991	274,699
Net income attributable to redeemable noncontrolling interests	113,671	127,084
Ending balance	\$ 1,560,693	\$ 1,435,581

Redeemable Noncontrolling Interest - Medici

RenaissanceRe owns a noncontrolling economic interest in Medici; however, because RenaissanceRe controls all of Medici's outstanding voting rights, the financial statements of Medici are included in the consolidated financial statements of the Company. The portion of Medici's earnings owned by third parties is recorded in the consolidated statements of operations as net income attributable to redeemable noncontrolling interests. Any shareholder may redeem all or any portion of its shares as of the last day of any calendar month, upon at least 30 calendar days' prior irrevocable written notice to Medici.

2020

During 2020, third-party investors subscribed for \$137.3 million and redeemed \$107.4 million of the participating, non-voting common shares of Medici. As a result of these net subscriptions, the Company's noncontrolling economic ownership in Medici was 15.7% at December 31, 2020.

2019

During 2019, third-party investors subscribed for \$237.0 million and redeemed \$47.4 million of the participating, non-voting common shares of Medici. As a result of these net subscriptions, the Company's noncontrolling economic ownership in Medici was 12.1%, at December 31, 2019.

The Company expects its noncontrolling economic ownership in Medici to fluctuate over time.

The activity in redeemable noncontrolling interest – Medici is detailed in the table below:

Year ended December 31,	2020	2019
Beginning balance	\$ 632,112	\$ 416,765
Redemption of shares from redeemable noncontrolling interests, net of adjustments	(107,386)	(47,401)
Sale of shares to redeemable noncontrolling interests	137,303	236,989
Net income attributable to redeemable noncontrolling interests	55,970	25,759
Ending balance	\$ 717,999	\$ 632,112

Redeemable Noncontrolling Interest – Vermeer

RenaissanceRe owns 100% of the voting non-participating shares of Vermeer, while the sole third-party investor, PFZW, owns 100% of the non-voting participating shares of Vermeer and retains all of the economic benefits. Vermeer is managed by RUM in return for a management fee. The Company has concluded that Vermeer is a VIE as it has voting rights that are not proportional to its participating rights, and the Company is the primary beneficiary. As a result, the Company consolidates Vermeer and all significant inter-company transactions have been eliminated. As PFZW owns all of the economics of Vermeer, all of Vermeer's earnings are allocated to PFZW in the consolidated statement of operations as net income attributable to redeemable noncontrolling interests. The Company has not provided any financial or other support to Vermeer that it was not contractually required to provide.

2020

During 2020, PFZW subscribed for \$45.0 million of the participating, non-voting common shares of Vermeer.

2019

During 2019, PFZW subscribed for \$355.0 million of the participating, non-voting common shares of Vermeer.

The Company does not expect its noncontrolling economic ownership in Vermeer to fluctuate over time.

The activity in redeemable noncontrolling interest – Vermeer is detailed in the table below:

Year ended December 31,	2020	2019
Beginning balance	\$ 1,003,615	\$ 599,989
Sale of shares to redeemable noncontrolling interest	45,000	355,000
Net income attributable to redeemable noncontrolling interest	61,012	48,626
Ending balance	\$ 1,109,627	\$ 1,003,615

NOTE 11. VARIABLE INTEREST ENTITIES

Upsilon RFO

RenaissanceRe owns a portion of the participating non-voting preference shares of Upsilon RFO and 85% Upsilon RFO's voting Class A shares. The shareholders (other than the voting Class A shareholders) participate in all of the profits or losses of Upsilon RFO while their shares remain outstanding. The shareholders (other than the voting Class A shareholders) indemnify Upsilon RFO against losses relating to insurance risk and therefore these shares have been accounted for as prospective reinsurance under FASB ASC Topic *Financial Services - Insurance*.

Upsilon RFO is considered a VIE as it has insufficient equity capital to finance its activities without additional financial support. The Company is the primary beneficiary of Upsilon RFO as it has power over the activities that most significantly impact the economic performance of Upsilon RFO and has the obligation to absorb expected losses and the right to receive expected benefits that could be significant to Upsilon RFO, in accordance with the accounting guidance. As a result, the Company consolidates Upsilon RFO and all

significant inter-company transactions have been eliminated. Other than its equity investment in Upsilon RFO, the Company has not provided financial or other support to Upsilon RFO that it was not contractually required to provide.

2020

During 2020, \$835.9 million of Upsilon RFO non-voting preference shares were issued to existing investors, including \$98.1 million to the Company. Also during 2020 and following the release of collateral that was previously held by cedants associated with prior years' contracts, Upsilon RFO returned \$586.0 million of capital to its investors, including \$102.9 million to the Company. At December 31, 2020, the Company's participation in the risks assumed by Upsilon RFO was 13.8%.

At December 31, 2020, the Company's consolidated balance sheet included total assets and total liabilities of Upsilon RFO of \$3.8 billion and \$3.8 billion, respectively (December 31, 2019 - \$3.1 billion and \$3.1 billion, respectively). Of the total assets and liabilities, a net amount of \$270.0 million is attributable to the Company, and \$1.7 billion is attributable to third-party investors.

2019

During 2019, Upsilon RFO returned \$279.2 million of capital to its investors, including \$31.0 million to the Company. In addition, during 2019, \$618.7 million of Upsilon RFO non-voting preference shares were issued to new and existing investors, including \$100.0 million to the Company. At December 31, 2019, the Company's participation in the risks assumed by Upsilon RFO was 16.5%.

Payments for certain of the shares issued during 2020 and 2019 that were received by the Company prior to January 1, 2020 and 2019, respectively, were included in other liabilities on the Company's consolidated balance sheet at December 31, 2019 and 2018, respectively, and in other operating cash flows on the Company's consolidated statements of cash flows for 2020 and 2019, respectively. During 2020 and 2019, respectively, in connection with the issuance of the non-voting preference shares of Upsilon RFO, other liabilities were reduced by this amount, and reinsurance balances payable were increased by an offsetting amount, with corresponding impacts to other operating cash flows and the change in reinsurance balances payable on the Company consolidated statements of cash flows for the year ended December 31, 2020 and 2019, respectively.

Refer to "Note 24. Subsequent Events" for additional information related to Upsilon RFO's non-voting preference shares subsequent to December 31, 2020.

Vermeer

Vermeer provides capacity focused on risk remote layers in the U.S. property catastrophe market. Refer to "Note 10. Noncontrolling Interests" for additional information regarding Vermeer.

At December 31, 2020, the Company's consolidated balance sheet included total assets and total liabilities of Vermeer of \$1.1 billion and \$36.7 million, respectively (2019 - \$1.0 billion and \$23.2 million, respectively). In addition, the Company's consolidated balance sheet included redeemable noncontrolling interests associated with Vermeer of \$1.1 billion at December 31, 2020 (2019 - \$1.0 billion).

Mona Lisa Re Ltd.

Mona Lisa Re provides reinsurance capacity to subsidiaries of RenaissanceRe through reinsurance agreements which are collateralized and funded by Mona Lisa Re through the issuance of one or more series of principal-at-risk variable rate notes to third-party investors.

Upon issuance of a series of notes by Mona Lisa Re, all of the proceeds from the issuance are deposited into collateral accounts, separated by series, to fund any potential obligation under the reinsurance agreements entered into with Renaissance Reinsurance and/or DaVinci underlying such series of notes. The outstanding principal amount of each series of notes generally will be returned to holders of such notes upon the expiration of the risk period underlying such notes, unless an event occurs which causes a loss under the applicable series of notes, in which case the amount returned will be reduced by such noteholder's pro rata share of such loss, as specified in the applicable governing documents of such notes.

In addition, holders of such notes are generally entitled to interest payments, payable quarterly, as determined by the applicable governing documents of each series of notes.

The Company concluded that Mona Lisa Re meets the definition of a VIE as it does not have sufficient equity capital to finance its activities. The Company evaluated its relationship with Mona Lisa Re and concluded it does not have a variable interest in Mona Lisa Re. As a result, the financial position and results of operations of Mona Lisa Re are not consolidated by the Company.

The only transactions related to Mona Lisa Re that are recorded in the Company's consolidated financial statements are the ceded reinsurance agreements entered into by Renaissance Reinsurance and DaVinci which are accounted for as prospective reinsurance under FASB ASC Topic *Financial Services - Insurance*, and the fair value of the principal-at-risk variable rate notes owned by the Company. Other than its investment in the principal-at-risk variable rate notes of Mona Lisa Re, the Company has not provided financial or other support to Mona Lisa Re that it was not contractually required to provide.

Renaissance Reinsurance and DaVinci have together entered into ceded reinsurance contracts with Mona Lisa Re with ceded premiums written of \$24.3 million and \$6.7 million, respectively, during 2020 (2019 - \$Nil and \$Nil, respectively, 2018 - \$0.2 million and \$0.2 million, respectively). In addition, Renaissance Reinsurance and DaVinci recognized ceded premiums earned related to the ceded reinsurance contracts with Mona Lisa Re of \$24.3 million and \$6.7 million, respectively, during 2020 (2019 - \$Nil and \$Nil, respectively, 2018 - \$0.2 million and \$0.2 million, respectively).

At December 31, 2020, the total assets and total liabilities of Mona Lisa Re were \$400.3 million and \$400.3 million, respectively (2019 - \$6 thousand and \$6 thousand, respectively).

The fair value of the Company's investment in the principal-at-risk variable rate notes of Mona Lisa Re is included in other investments. Net of third-party investors, the fair value of the Company's investment in Mona Lisa Re was \$3.7 million at December 31, 2020.

Fibonacci Re

Fibonacci Re provides collateralized capacity to Renaissance Reinsurance and its affiliates.

The Company concluded that Fibonacci Re meets the definition of a VIE as it does not have sufficient equity capital to finance its activities. The Company evaluated its relationship with Fibonacci Re and concluded it is not the primary beneficiary of Fibonacci Re as it does not have power over the activities that most significantly impact the economic performance of Fibonacci Re. As a result, the Company does not consolidate the financial position or results of operations of Fibonacci Re.

The only transactions related to Fibonacci Re that are recorded in the Company's consolidated financial statements are the ceded reinsurance agreements entered into by Renaissance Reinsurance that are accounted for as prospective reinsurance under FASB ASC Topic *Financial Services - Insurance*, and the fair value of the participating notes owned by the Company. Other than its investment in the participating notes of Fibonacci Re, the Company has not provided financial or other support to Fibonacci Re that it was not contractually required to provide.

Renaissance Reinsurance entered into ceded reinsurance contracts with Fibonacci Re with ceded premiums written of \$0.2 million and ceded premiums earned of \$0.2 million during 2020 (2019 - \$0.1 million and \$0.1 million, respectively, 2018 - \$9.1 million and \$10.0 million, respectively). During 2020, Renaissance Reinsurance experienced favorable development of \$7.5 million on prior accident years net claims and claim expenses on contracts ceded to Fibonacci Re (2019 - incurred net claims and claim expenses of \$7.5 million, 2018 - incurred net claims and claim expenses of \$Nil) and as of December 31, 2020 had a net reinsurance recoverable of \$Nil from Fibonacci Re (December 31, 2019 - \$7.5 million).

The fair value of the Company's investment in the participating notes of Fibonacci Re is included in other investments. During 2020, all previously outstanding series of notes issued by Fibonacci Re were redeemed and the proceeds were returned to the holders of such notes. Net of third-party investors, the fair value of the Company's investment in Fibonacci Re was \$Nil at December 31, 2020 (2019 - \$0.4 million).

Langhorne

The Company and Reinsurance Group of America, Incorporated formed Langhorne, an initiative to source third-party capital to support reinsurers targeting large in-force life and annuity blocks. In connection with Langhorne, as of December 31, 2020 the Company has invested \$2.0 million in Langhorne Holdings (2019 - \$1.7 million), a company that owns and manages certain reinsurance entities within Langhorne. In addition, as of December 31, 2020 the Company has invested \$0.1 million in Langhorne Partners (2019 - \$0.1 million), the general partner for Langhorne and the entity which manages the third-party investors investing into Langhorne Holdings.

The Company concluded that Langhorne Holdings meets the definition of a VIE as the voting rights are not proportional with the obligations to absorb losses and rights to receive residual returns. The Company evaluated its relationship with Langhorne Holdings and concluded it is not the primary beneficiary of Langhorne Holdings, as it does not have power over the activities that most significantly impact the economic performance of Langhorne Holdings. As a result, the Company does not consolidate the financial position or results of operations of Langhorne Holdings. The Company separately evaluated Langhorne Partners and concluded that it was not a VIE. The Company accounts for its investments in Langhorne Holdings and Langhorne Partners under the equity method of accounting, one quarter in arrears.

The Company anticipates that its absolute investment in Langhorne will increase, perhaps materially, as in-force life and annuity blocks of businesses are written. The Company expects its absolute and relative ownership in Langhorne Partners to remain stable. Other than its current and committed future equity investment in Langhorne, the Company has not provided financial or other support to Langhorne that it was not contractually required to provide.

Shima Re

Shima Re was acquired on March 22, 2019 in connection with the acquisition of TMR. Refer to "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of TMR. Shima Re is a Bermuda domiciled Class 3 insurer. Shima Re is registered as a segregated accounts company and provides third-party investors with access to reinsurance risk. The maximum remaining exposure of each segregated account is fully collateralized and is funded by cash or investments as prescribed by the participant thereto. Shima Re no longer writes new business and the last in-force contract written by Shima Re expired on December 31, 2019. The Company ceased providing management services to Shima Re effective December 1, 2020.

Shima Re is considered a VIE as it has voting rights that are not proportional to its participating rights. The Company evaluated its relationship with Shima Re and concluded it is not the primary beneficiary of any segregated account, as it does not have power over the activities that most significantly impact the economic performance of any segregated account. As a result, the Company does not consolidate the financial position or results of operations of Shima Re or its segregated accounts. The Company has not provided any financial or other support to any segregated account of Shima Re that it was not contractually required to provide.

Norwood Re

Until December 1, 2020, Norwood Re was managed by a subsidiary of RREAG that the Company acquired in the acquisition of TMR. Refer to "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of TMR. Norwood Re is a Bermuda domiciled SPI registered as a segregated accounts company formed to provide solutions for reinsurance-linked asset investors. Norwood Re is wholly owned by the Norwood Re Purpose Trust. Risks assumed by the segregated accounts of Norwood Re are fronted by or ceded from only one cedant - RREAG and/or its insurance affiliates. The obligations of each segregated account are funded through the issuance of non-voting preference shares to third-party investors. The maximum exposure of each segregated account is fully collateralized and is funded by cash and term deposits or investments as prescribed by the participant thereto. Norwood Re no longer writes new business, and the last in-force contract written by Norwood Re expired on June 30, 2020. The Company ceased providing management services to Norwood Re effective December 1, 2020.

Norwood Re is considered a VIE as it has voting rights that are not proportional to its participating rights. The Company evaluated its relationship with Norwood Re and concluded it is not the primary beneficiary of

Norwood Re and its segregated accounts, as it does not have power over the activities that most significantly impact the economic performance of Norwood Re and its segregated accounts. As a result, the Company does not consolidate the financial position or results of operations of Norwood Re and its segregated accounts. The Company has not provided any financial or other support to Norwood Re that it was not contractually required to provide.

NOTE 12. SHAREHOLDERS' EQUITY

Authorized Capital

The aggregate authorized capital of RenaissanceRe is 325 million shares consisting of 225 million common shares and 100 million preference shares. The following table is a summary of changes in common shares issued and outstanding:

<u>Year ended December 31,</u> (thousands of shares)	<u>2020</u>	<u>2019</u>	<u>2018</u>
Beginning balance	44,148	42,207	40,024
Issuance of shares	6,777	1,739	1,947
Repurchase of shares	(406)	—	—
Exercise of options and issuance of restricted stock awards	292	202	236
Ending balance	<u>50,811</u>	<u>44,148</u>	<u>42,207</u>

Common Shares

On June 5, 2020, the Company issued 6,325,000 of its common shares in an underwritten public offering at a public offering price of \$166.00 per share. Concurrently with the public offering, the Company raised \$75.0 million through the issuance of 451,807 of its common shares at a price of \$166.00 per share to State Farm Mutual Automobile Insurance Company ("State Farm"), one of the Company's existing stockholders, in a private placement. The total net proceeds from the offerings were \$1.1 billion.

On March 22, 2019, in connection with the closing of the TMR Stock Purchase, the Company issued 1,739,071 of its common shares to Tokio as part of the aggregate consideration payable to Tokio under the TMR Stock Purchase Agreement. Refer to "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of TMR. On January 9, 2020, Tokio completed a secondary public offering of these common shares, which represented all of Tokio's remaining ownership in the Company. The Company did not receive any proceeds from Tokio's sale of its common shares.

On December 20, 2018, the Company issued 1,947,496 of its common shares to State Farm in exchange for \$250.0 million in a private placement pursuant to an Investment Agreement between the Company and State Farm entered into on October 30, 2018.

Preference Shares

In March 2004, RenaissanceRe raised \$250.0 million through the issuance of 10 million Series C Preference Shares at \$25 per share and in May 2013, RenaissanceRe raised \$275.0 million through the issuance of 11 million Series E Preference Shares at \$25 per share. On June 27, 2013, RenaissanceRe redeemed 5 million Series C Preference Shares for \$125.0 million plus accrued and unpaid dividends thereon. On March 26, 2020, the remainder of the Series C Preference Shares were redeemed for \$125.0 million plus accrued and unpaid dividends thereon. Following the redemption, no Series C Preference Shares remain outstanding. In June 2018, RenaissanceRe raised \$250.0 million through the issuance of 10,000 Series F Preference Shares at \$25,000 share (equivalent to 10,000,000 Depositary Shares, each of which represents a 1/1,000th interest in a Series F Preference Share).

The Series E Preference Shares may be redeemed at any time at \$25 per share plus declared and unpaid dividends at RenaissanceRe's option. The Series F Preference Shares may be redeemed at \$25,000 per share (equivalent to \$25 per Depositary Share), plus declared and unpaid dividends, at RenaissanceRe's option on or after June 30, 2023, provided that no redemption may occur prior to June 30, 2028 unless certain redemption requirements are met.

Dividends on the Series E Preference Shares are payable from the date of original issuance on a non-cumulative basis, only when, as and if declared by the Board of Directors, quarterly in arrears at 5.375% per annum. Dividends on the Series F Preference Shares are payable on a non-cumulative basis, only when, as and if declared by the Board of Directors, quarterly in arrears at 5.750% per annum. Unless certain dividend payments are made on the preference shares, RenaissanceRe will be restricted from paying any dividends on its common shares. As stated above, the Board of Directors approved the payment of quarterly dividends on the Series E Preference Shares and Series F Preference Shares in the amounts and on the quarterly record dates and dividend payment dates set forth in the prospectus supplement and Certificate of Designation for the applicable series of preference shares, unless and until further action is taken by the Board of Directors.

The preference shares have no stated maturity and are not convertible into any other securities of RenaissanceRe. Generally, the preference shares have no voting rights. Whenever dividends payable on the preference shares are in arrears (whether or not such dividends have been earned or declared) in an amount equivalent to dividends for six full dividend periods (whether or not consecutive), the holders of the preference shares, voting as a single class regardless of class or series, will have the right to elect two directors to the Board of Directors of RenaissanceRe.

Dividends

The Board of Directors of RenaissanceRe declared dividends of \$0.35 per common share, payable to common shareholders of record on March 13, 2020, June 15, 2020 and September 15, 2020, and the Company paid the dividends on March 31, 2020, June 30, 2020, September 30, 2020, and December 31, 2020, respectively. The declaration and payment of dividends on the Company's common shares are subject to the discretion of the Company's Board of Directors and depend on the Company's financial condition, general business conditions, legal, contractual and regulatory restrictions regarding the payment of dividends by the Company and its subsidiaries and other factors which the Board of Directors may consider to be relevant.

The Board of Directors approved the payment of quarterly dividends on the Series C 6.08% Preference Shares, Series E 5.375% Preference Shares and 5.750% Series F Preference Shares to preference shareholders of record in the amounts and on the quarterly record dates and dividend payment dates set forth in the prospectus supplement and Certificate of Designation for the applicable series of preference shares, unless and until further action is taken by the Board of Directors. The dividend payment dates for the preference shares will be the first day of March, June, September and December of each year (or if this date is not a business day, on the business day immediately following this date). The record dates for the preference share dividends are one day prior to the dividend payment dates. The amount of the dividend on the Series C 6.08% Preference Shares was an amount per share equal to 6.08% of the liquidation preference per annum (the equivalent to \$1.52 per share per annum, or \$0.38 per share per quarter), and was paid prior to the redemption in full of the Series C 6.08% shares on March 26, 2020. The amount of the dividend on the Series E 5.375% Preference Shares is an amount per share equal to 5.375% of the liquidation preference per annum (the equivalent to \$1.34375 per share per annum, or \$0.3359375 per share per quarter). The amount of the dividend on the 5.750% Series F Preference Shares is an amount per share equal to 5.750% of the liquidation preference per annum (the equivalent to \$1,437.50 per 5.750% Series F Preference Share per annum, or \$359.375 per 5.750% Series F Preference Share per quarter, or \$1.4375 per Depositary Share per annum, or \$0.359375 per Depositary Share per quarter).

During 2020, the Company paid \$30.9 million in preference share dividends (2019 - \$36.8 million, 2018 - \$30.1 million) and \$68.5 million in common share dividends (2019 - \$59.4 million, 2018 - \$52.8 million).

Share Repurchases

The Company's share repurchase program may be effected from time to time, depending on market conditions and other factors, through open market purchases and privately negotiated transactions. On February 5, 2021, RenaissanceRe's Board of Directors approved a renewal of its authorized share repurchase program for an aggregate amount of up to \$500.0 million. Unless terminated earlier by RenaissanceRe's Board of Directors, the program will expire when the Company has repurchased the full value of the common shares authorized. The Company's decision to repurchase common shares will depend on, among other matters, the market price of the common shares and the capital requirements of

the Company. During 2020, the Company repurchased 405,682 common shares in open market transactions at an aggregate cost of \$62.6 million and an average price of \$154.36 per common share. Given the economic environment and to preserve capital for both risk and opportunity, we suspended share repurchases in March 2020 and we did not engage in any share repurchase activity in the second, third and fourth quarters of 2020. At December 31, 2020, \$437.4 million remained available for repurchase under the share repurchase program. Refer to “Note 24. Subsequent Events” for additional information related to common share repurchases subsequent to December 31, 2020.

NOTE 13. EARNINGS PER SHARE

The following table sets forth the computation of basic and diluted earnings per common share:

Year ended December 31, (common shares in thousands)	2020	2019	2018
Numerator:			
Net income available to RenaissanceRe common shareholders	\$ 731,482	\$ 712,042	\$ 197,276
Amount allocated to participating common shareholders (1)	(8,968)	(8,545)	(2,121)
Net income allocated to RenaissanceRe common shareholders	<u>\$ 722,514</u>	<u>\$ 703,497</u>	<u>\$ 195,155</u>
Denominator:			
Denominator for basic income per RenaissanceRe common share - weighted average common shares	47,103	43,119	39,732
Per common share equivalents of non-vested shares	75	56	23
Denominator for diluted income per RenaissanceRe common share - adjusted weighted average common shares and assumed conversions	<u>47,178</u>	<u>43,175</u>	<u>39,755</u>
Net income available to RenaissanceRe common shareholders per common share – basic	\$ 15.34	\$ 16.32	\$ 4.91
Net income available to RenaissanceRe common shareholders per common share – diluted	\$ 15.31	\$ 16.29	\$ 4.91

(1) Represents earnings and dividends attributable to holders of unvested shares issued pursuant to the Company's stock compensation plans.

NOTE 14. RELATED PARTY TRANSACTIONS AND MAJOR CUSTOMERS

Tower Hill

The Company has entered into reinsurance arrangements with certain subsidiaries and affiliates of Tower Hill and has also entered into reinsurance arrangements with respect to business produced by the Tower Hill Companies.

During 2020, the Company recorded \$55.5 million (2019 - \$39.8 million, 2018 - \$45.5 million) of gross premiums written assumed from the Tower Hill Companies and its subsidiaries and affiliates. Gross premiums earned totaled \$51.4 million (2019 - \$40.7 million, 2018 - \$43.8 million) and expenses incurred were \$7.9 million (2019 - \$6.1 million, 2018 - \$7.1 million) for 2020. The Company had a net related outstanding receivable balance of \$18.3 million as of December 31, 2020 (2019 - receivable of \$14.8 million). During 2020, the Company assumed net claims and claim expenses of \$13.2 million (2019 - assumed net claims and claim expenses of \$37.7 million, 2018 - assumed net claims and claim expenses of \$111.2 million) and, as of December 31, 2020, had a net reserve for claims and claim expenses of \$69.5 million (2019 - \$71.8 million).

In addition, the Company received distributions of \$9.5 million from the Tower Hill Companies during 2020 (2019 - \$13.4 million, 2018 - \$12.1 million).

Top Layer Re

During 2020, the Company received distributions from Top Layer Re of \$18.0 million (2019 - \$20.0 million, 2018 - \$12.5 million), and recorded a management fee of \$2.4 million (2019 - \$2.3 million, 2018 - \$2.7 million). The management fee reimburses the Company for services it provides to Top Layer Re.

Broker Concentration

During 2020, the Company received 79.6% of its gross premiums written (2019 - 79.6%, 2018 - 75.2%) from three brokers. Subsidiaries and affiliates of Aon plc, Marsh Inc. and Willis Towers Watson Public Limited Company accounted for 42.8%, 24.5% and 12.3%, respectively, of gross premiums written in 2020 (2019 - 41.7%, 27.1% and 10.8%, respectively, 2018 - 40.7%, 24.6% and 9.9%, respectively).

NOTE 15. TAXATION

Under current Bermuda law, RenaissanceRe and its Bermuda subsidiaries are not subject to any income or capital gains taxes. In the event that such taxes are imposed, RenaissanceRe and its Bermuda subsidiaries would be exempted from any such tax until March 2035 pursuant to the Bermuda Exempted Undertakings Tax Protection Act 1966, and Amended Acts of 1987 and 2011, respectively.

RenaissanceRe Finance and its subsidiaries are subject to income taxes imposed by U.S. federal and state authorities and file a consolidated U.S. federal income tax return. Should the U.S. subsidiaries pay a dividend to RenaissanceRe, withholding taxes would apply to the extent of current year or accumulated earnings and profits at an expected tax rate of 5.0%. The Company also has operations in Ireland, the U.K., Singapore, Switzerland and Australia which are subject to income taxes imposed by the respective jurisdictions in which they operate. Withholding taxes would not be expected to apply to dividends paid to RenaissanceRe from its subsidiaries in Ireland, the U.K., Singapore Switzerland and Australia.

The following is a summary of the Company's income (loss) before taxes allocated between domestic and foreign operations:

<u>Year ended December 31,</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>
Domestic			
Bermuda	\$ 1,122,261	\$ 861,068	\$ 349,959
Foreign			
Singapore	16,416	(6,334)	(3,226)
Ireland	1,315	(388)	551
U.S.	286	102,724	(56,261)
Australia	(1,689)	3,390	—
Switzerland	(40,502)	14,255	166
U.K.	(102,167)	(7,233)	(28,574)
Income before taxes	<u>\$ 995,920</u>	<u>\$ 967,482</u>	<u>\$ 262,615</u>

Income tax (expense) benefit is comprised as follows:

<u>Year ended December 31, 2020</u>	<u>Current</u>	<u>Deferred</u>	<u>Total</u>
Total income tax (expense) benefit	<u>\$ (6,313)</u>	<u>\$ 3,451</u>	<u>\$ (2,862)</u>
<u>Year ended December 31, 2019</u>			
Total income tax expense	<u>\$ (2,128)</u>	<u>\$ (15,087)</u>	<u>\$ (17,215)</u>
<u>Year ended December 31, 2018</u>			
Total income tax (expense) benefit	<u>\$ (1,668)</u>	<u>\$ 7,970</u>	<u>\$ 6,302</u>

The Company's expected income tax provision computed on pre-tax income (loss) at the weighted average tax rate has been calculated as the sum of the pre-tax income (loss) in each jurisdiction multiplied by that jurisdiction's applicable statutory tax rate. Statutory tax rates of 0.0% in Bermuda, 21.0% in the U.S., 12.5%

in Ireland, 19.0% in the U.K., 17.0% in Singapore, 21.2% in Switzerland and 30.0% in Australia have been used.

The Company's effective income tax rate, which it calculates as income tax expense divided by net income before taxes, may fluctuate significantly from period to period depending on the geographic distribution of pre-tax net income (loss) in any given period between different jurisdictions with comparatively higher tax rates and those with comparatively lower tax rates. The geographic distribution of pre-tax net income (loss) can vary significantly between periods due to, but not limited to, the following factors: the business mix of net premiums written and earned; the geographic location, the size and the nature of net claims and claim expenses incurred; the amount and geographic location of operating expenses, net investment income, net realized and unrealized gains (losses) on investments; outstanding debt and related interest expense; and the amount of specific adjustments to determine the income tax basis in each of the Company's operating jurisdictions. In addition, a significant portion of the Company's gross and net premiums are currently written and earned in Bermuda, which does not have a corporate income tax, including the majority of the Company's catastrophe business, which can result in significant volatility to its pre-tax net income in any given period.

A reconciliation of the difference between the provision for income taxes and the expected tax provision at the weighted average tax rate is as follows:

Year ended December 31,	2020	2019	2018
Expected income tax benefit (expense)	\$ 25,489	\$ (22,874)	\$ 17,697
Nondeductible expenses	5,074	(7,059)	(370)
Income tax audit adjustment	3,424	—	—
Effect of change in tax rate	3,055	(262)	(708)
Tax exempt income	218	400	944
Transfer pricing	206	2,503	(2,481)
GAAP to statutory accounting difference	—	6,553	—
Non-taxable foreign exchange (losses) gains	(7)	(4)	586
U.S. base erosion and anti-abuse tax	(36)	—	(1,271)
Withholding tax	(1,822)	(665)	(1,831)
Non-taxable loss on sale of RenaissanceRe UK	(6,091)	—	—
Change in valuation allowance	(13,003)	(5,481)	(5,255)
Foreign branch adjustments	(17,821)	7,315	—
Other	(1,548)	2,359	(1,009)
Income tax (expense) benefit	<u>\$ (2,862)</u>	<u>\$ (17,215)</u>	<u>\$ 6,302</u>

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are presented below:

At December 31,	2020	2019
Deferred tax assets		
Tax loss and credit carryforwards	\$ 128,561	\$ 111,835
Unearned premiums	20,854	17,842
Reserve for claims and claim expenses	14,983	8,984
Deferred finance charges	11,427	10,160
Deferred underwriting results	7,228	4,033
Accrued expenses	4,826	7,196
	<u>187,879</u>	<u>160,050</u>
Deferred tax liabilities		
Investments	(23,598)	(6,468)
Deferred acquisition expenses	(23,040)	(16,296)
Intangible assets	(1,142)	(2,891)
Amortization and depreciation	(1,130)	(2,133)
VOBA	(1,017)	(12,673)
	<u>(49,927)</u>	<u>(40,461)</u>
Net deferred tax asset before valuation allowance	137,952	119,589
Valuation allowance	(88,688)	(75,685)
Net deferred tax asset	<u>\$ 49,264</u>	<u>\$ 43,904</u>

The Company's net deferred tax asset is included in other assets on its consolidated balance sheets.

During 2020, the Company recorded a net increase to the valuation allowance of \$13.0 million (2019 – increase of \$40.4 million, 2018 – increase of \$5.3 million). The Company's net deferred tax asset primarily relates to net operating loss carryforwards and GAAP versus tax basis accounting differences relating to unearned premiums, reserves for claims and claim expenses, deferred finance charges, deferred underwriting results, accrued expenses, investments, deferred acquisition expenses, intangible assets, amortization and depreciation and VOBA. The Company's valuation allowance assessment is based on all available information including projections of future GAAP taxable income from each tax-paying component in each tax jurisdiction.

A valuation allowance has been provided against deferred tax assets in the U.S., Ireland, the U.K., Singapore and Switzerland. These deferred tax assets relate primarily to net operating loss carryforwards. The acquired valuation allowance of TMR as of March 22, 2019 was \$35.7 million, the majority of which was established in the U.S.

In the U.S. and Switzerland, the Company has net operating loss carryforwards of \$379.0 million and \$262.2 million respectively. Under applicable law, the U.S. and Swiss net operating loss carryforwards will begin to expire in 2031 and 2021 respectively. The Company has net operating loss carryforwards of \$122.2 million in the U.K., \$25.7 million in Singapore, \$5.6 million in Ireland and \$3.9 million in Australia. Under applicable law, the U.K., Singapore, Irish and Australia net operating losses can be carried forward for an indefinite period.

The Company had a net payment for U.S. federal, Irish, U.K., Singapore, Switzerland and Australia income taxes of \$5.7 million for the year ended 2020 (2019 – net payment of \$9.7 million, 2018 – net payment of \$0.3 million).

The Company has unrecognized tax benefits of \$Nil as of December 31, 2020 (2019 – \$Nil). Interest and penalties related to unrecognized tax benefits would be recognized in income tax expense. At December 31, 2020, interest and penalties accrued on unrecognized tax benefits were \$Nil (2019 – \$Nil). The following filed income tax returns are open for examination with the applicable tax authorities: tax years 2017 through 2019 with the IRS; 2016 through 2019 with Ireland; 2018 through 2019 with the U.K.; 2016 through 2019 with Singapore; 2019 with Switzerland; and 2016 through 2019 with Australia. The Company

does not expect the resolution of these open years to have a significant impact on its consolidated statements of operations and financial condition.

NOTE 16. SEGMENT REPORTING

The Company's reportable segments are defined as follows: (1) Property, which is comprised of catastrophe and other property reinsurance and insurance written on behalf of the Company's operating subsidiaries and certain entities managed by the Company's ventures unit, and (2) Casualty and Specialty, which is comprised of casualty and specialty reinsurance and insurance written on behalf of the Company's operating subsidiaries and certain entities managed by the Company's ventures unit. In addition to its reportable segments, the Company has an Other category, which primarily includes its strategic investments, investments unit, corporate expenses, capital servicing costs, noncontrolling interests and certain expenses related to acquisitions and dispositions.

The Company's Property segment is managed by the Chief Underwriting Officer - Property and the Casualty and Specialty segment is managed by the Chief Underwriting Officer - Casualty and Specialty, each of whom operate under the direction of the Company's Group Chief Underwriting Officer, who in turn reports to the Company's President and Chief Executive Officer.

The Company does not manage its assets by segment; accordingly, net investment income and total assets are not allocated to the segments.

A summary of the significant components of the Company's revenues and expenses by segment is as follows:

Year ended December 31, 2020	Property	Casualty and Specialty	Other	Total
Gross premiums written	\$ 2,999,142	\$ 2,807,023	\$ —	\$ 5,806,165
Net premiums written	\$ 2,037,200	\$ 2,059,133	\$ —	\$ 4,096,333
Net premiums earned	\$ 1,936,215	\$ 2,016,247	\$ —	\$ 3,952,462
Net claims and claim expenses incurred	1,435,735	1,488,662	212	2,924,609
Acquisition expenses	353,700	543,977	—	897,677
Operational expenses	135,547	71,140	—	206,687
Underwriting income (loss)	\$ 11,233	\$ (87,532)	\$ (212)	(76,511)
Net investment income			354,038	354,038
Net foreign exchange gains			27,773	27,773
Equity in earnings of other ventures			17,194	17,194
Other income			213	213
Net realized and unrealized gains on investments			820,636	820,636
Corporate expenses			(96,970)	(96,970)
Interest expense			(50,453)	(50,453)
Income before taxes and redeemable noncontrolling interests				995,920
Income tax expense			(2,862)	(2,862)
Net income attributable to redeemable noncontrolling interests			(230,653)	(230,653)
Dividends on preference shares			(30,923)	(30,923)
Net income available to RenaissanceRe common shareholders				\$ 731,482
Net claims and claim expenses incurred – current accident year	\$ 1,592,996	\$ 1,515,425	\$ —	\$ 3,108,421
Net claims and claim expenses incurred – prior accident years	(157,261)	(26,763)	212	(183,812)
Net claims and claim expenses incurred – total	\$ 1,435,735	\$ 1,488,662	\$ 212	\$ 2,924,609
Net claims and claim expense ratio – current accident year	82.3 %	75.2 %		78.6 %
Net claims and claim expense ratio – prior accident years	(8.1)%	(1.4)%		(4.6)%
Net claims and claim expense ratio – calendar year	74.2 %	73.8 %		74.0 %
Underwriting expense ratio	25.2 %	30.5 %		27.9 %
Combined ratio	99.4 %	104.3 %		101.9 %

Year ended December 31, 2019	Property	Casualty and Specialty	Other	Total
Gross premiums written	\$ 2,430,985	\$ 2,376,765	\$ —	\$ 4,807,750
Net premiums written	\$ 1,654,259	\$ 1,727,234	\$ —	\$ 3,381,493
Net premiums earned	\$ 1,627,494	\$ 1,710,909	\$ —	\$ 3,338,403
Net claims and claim expenses incurred	965,424	1,131,637	(40)	2,097,021
Acquisition expenses	313,761	448,678	(207)	762,232
Operational expenses	139,015	84,546	(828)	222,733
Underwriting income	\$ 209,294	\$ 46,048	\$ 1,075	256,417
Net investment income			424,207	424,207
Net foreign exchange losses			(2,938)	(2,938)
Equity in earnings of other ventures			23,224	23,224
Other income			4,949	4,949
Net realized and unrealized gains on investments			414,109	414,109
Corporate expenses			(94,122)	(94,122)
Interest expense			(58,364)	(58,364)
Income before taxes and redeemable noncontrolling interests				967,482
Income tax expense			(17,215)	(17,215)
Net income attributable to redeemable noncontrolling interests			(201,469)	(201,469)
Dividends on preference shares			(36,756)	(36,756)
Net income available to RenaissanceRe common shareholders				\$ 712,042
Net claims and claim expenses incurred – current accident year	\$ 968,357	\$ 1,155,519	\$ —	\$ 2,123,876
Net claims and claim expenses incurred – prior accident years	(2,933)	(23,882)	(40)	(26,855)
Net claims and claim expenses incurred – total	\$ 965,424	\$ 1,131,637	\$ (40)	\$ 2,097,021
Net claims and claim expense ratio – current accident year	59.5 %	67.5 %		63.6 %
Net claims and claim expense ratio – prior accident years	(0.2)%	(1.4)%		(0.8)%
Net claims and claim expense ratio – calendar year	59.3 %	66.1 %		62.8 %
Underwriting expense ratio	27.8 %	31.2 %		29.5 %
Combined ratio	87.1 %	97.3 %		92.3 %

Year ended December 31, 2018	Property	Casualty and Specialty	Other	Total
Gross premiums written	\$ 1,760,926	\$ 1,549,501	\$ —	\$ 3,310,427
Net premiums written	\$ 1,055,188	\$ 1,076,714	\$ —	\$ 2,131,902
Net premiums earned	\$ 1,050,831	\$ 925,298	\$ —	\$ 1,976,129
Net claims and claim expenses incurred	497,895	622,320	(197)	1,120,018
Acquisition expenses	177,912	255,079	(2)	432,989
Operational expenses	112,954	64,883	430	178,267
Underwriting income (loss)	\$ 262,070	\$ (16,984)	\$ (231)	244,855
Net investment income			269,965	269,965
Net foreign exchange losses			(12,428)	(12,428)
Equity in earnings of other ventures			18,474	18,474
Other income			5,969	5,969
Net realized and unrealized losses on investments			(183,168)	(183,168)
Corporate expenses			(33,983)	(33,983)
Interest expense			(47,069)	(47,069)
Income before taxes and redeemable noncontrolling interests				262,615
Income tax benefit			6,302	6,302
Net income attributable to redeemable noncontrolling interests			(41,553)	(41,553)
Dividends on preference shares			(30,088)	(30,088)
Net income available to RenaissanceRe common shareholders				\$ 197,276
Net claims and claim expenses incurred – current accident year	\$ 719,185	\$ 671,582	\$ —	\$ 1,390,767
Net claims and claim expenses incurred – prior accident years	(221,290)	(49,262)	(197)	(270,749)
Net claims and claim expenses incurred – total	\$ 497,895	\$ 622,320	\$ (197)	\$ 1,120,018
Net claims and claim expense ratio – current accident year	68.4 %	72.6 %		70.4 %
Net claims and claim expense ratio – prior accident years	(21.0)%	(5.3)%		(13.7)%
Net claims and claim expense ratio – calendar year	47.4 %	67.3 %		56.7 %
Underwriting expense ratio	27.7 %	34.5 %		30.9 %
Combined ratio	75.1 %	101.8 %		87.6 %

The following is a summary of the Company's gross premiums written allocated to the territory of coverage exposure:

<u>Year ended December 31,</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>
<i>Property</i>			
U.S. and Caribbean	\$ 1,683,538	\$ 1,368,205	\$ 978,063
Worldwide	889,917	643,744	464,311
Europe	189,587	182,544	144,857
Japan	102,228	90,328	71,601
Worldwide (excluding U.S.) (1)	62,058	79,393	66,872
Australia and New Zealand	40,243	32,203	19,273
Other	31,571	34,568	15,949
Total Property	2,999,142	2,430,985	1,760,926
<i>Casualty and Specialty</i>			
Worldwide	1,315,386	935,626	776,976
U.S. and Caribbean	1,248,981	1,071,170	667,125
Europe	121,369	227,178	15,296
Worldwide (excluding U.S.) (1)	56,225	25,291	31,734
Australia and New Zealand	12,429	34,053	3,667
Other	52,633	83,447	54,703
Total Casualty and Specialty	2,807,023	2,376,765	1,549,501
Total gross premiums written	\$ 5,806,165	\$ 4,807,750	\$ 3,310,427

(1) The category "Worldwide (excluding U.S.*)" consists of contracts that cover more than one geographic region (other than the U.S.).

NOTE 17. STOCK INCENTIVE COMPENSATION AND EMPLOYEE BENEFIT PLANS

Stock Incentive Compensation Plans and Awards

The Company is authorized to issue restricted stock awards, restricted stock units, performance share awards, stock options and other share-based awards to its employees and directors pursuant to various stock incentive compensation plans.

On May 16, 2016, the Company's shareholders approved the Company's 2016 Long-Term Incentive Plan (the "2016 Long-Term Incentive Plan"). Pursuant to the 2016 Long-Term Incentive Plan, the Company is authorized to issue up to 1,625,000 common shares plus the number of shares that were subject to awards outstanding under the Company's 2001 Stock Incentive Plan, as amended (the "2001 Stock Incentive Plan") and the Company's 2010 Performance-Based Equity Incentive Plan, as amended (the "2010 Performance Plan") as of the effective date of the 2016 Long-Term Incentive Plan that are forfeited, canceled, settled in cash, or otherwise terminated without delivery after the effective date. The 2016 Long-Term Incentive Plan permits the grant of restricted stock awards, restricted stock units, performance share awards (including cash-based performance awards), stock options and other share-based awards to employees, officers, non-employee directors and consultants or advisors of the Company and its affiliates.

The 2001 Stock Incentive Plan, which permitted the grant of stock options, restricted stock awards and other share-based awards to employees of RenaissanceRe and its subsidiaries, expired in accordance with its terms on February 6, 2016 and no additional awards may be made under this plan. All awards made under the 2001 Stock Incentive Plan vested no later than March 1, 2020. The 2010 Performance Plan, pursuant to which the Company granted performance share awards, was terminated on May 16, 2016 upon approval of the 2016 Long-Term Incentive Plan, and no additional awards will be made under this plan. All outstanding awards made under the 2010 Performance Share Plan vested no later than February 7, 2018. The terms and conditions of outstanding awards granted under the 2001 Share Incentive Plan and the 2010 Performance Plan were not affected by the respective expiration and termination of these plans.

In 2010, the Company instituted a cash settled restricted stock unit (“CSRSU”) plan, the 2010 Restricted Stock Unit Plan, which allowed for the issuance of equity awards in the form of CSRSUs. In November 2016, the 2010 Restricted Stock Plan was terminated and replaced with a new cash settled restricted stock unit plan, the 2016 Restricted Stock Unit Plan. The terms and conditions of CSRSU awards outstanding under the 2010 Restricted Stock Unit Plan at the time of termination were not affected, but no additional awards will be made under the 2010 Restricted Stock Unit Plan. All outstanding awards made under the 2010 Restricted Stock Unit Plan vested no later than March 1, 2020.

Stock Options

The Company has not granted stock options since 2008. Stock options were granted pursuant to the 2001 Stock Incentive Plan and allowed for the purchase of RenaissanceRe common shares at a price that was equal to, or not less than, the fair market value of RenaissanceRe common shares as of the effective grant date. Stock options generally vested over 4 years and expired 10 years from the grant date. The final stock options outstanding were exercised during the year ended December 31, 2018.

Restricted Stock Awards

Restricted stock awards granted periodically under the 2016 Long-Term Incentive Plan generally vest ratably over a four year period. The Company has also granted restricted stock awards to non-employee directors, which generally vest ratably over a three-year period.

Performance Share Awards

Performance share awards have been granted periodically to certain of the Company’s executive officers pursuant to the 2016 Long-Term Incentive Plan. Outstanding performance share awards are subject to vesting conditions based on both continued service and the attainment of pre-established performance goals. If performance goals are achieved, the performance share awards granted in March 2018 will vest up to a maximum of 250% of target and those granted in May 2018 and later will vest up to a maximum of 200% of target. Performance share awards generally cliff vest at the end of a three-year vesting period based on the attainment of annual performance goals over the vesting period.

Performance Share Awards Granted in March 2018

Performance share awards granted in March 2018 have a market condition, which is the Company’s total shareholder return relative to its peer group. Total shareholder return is calculated in accordance with the terms of the applicable award agreement and is generally based on the average closing share price over the 20 trading days preceding and including the start and end of the annual performance period.

Performance Share Awards Granted in May 2018 and March 2019

Performance share awards granted in May 2018 and March 2019 have a performance condition, which is the percentage change in the Company’s tangible book value per common share plus change in accumulated dividends, or, in the event of a change in control, a market condition, which is the Company’s total shareholder return relative to its peer group.

Performance Share Awards Granted in March 2020

Performance share awards granted in March 2020 have a performance condition, which is the percentage change in the Company’s book value per common share plus change in accumulated dividends over three years and three-year average underwriting expense ratio rank compared to peers, or, in the event of a change in control, a market condition, which is the Company’s total shareholder return relative to its peer group.

The percentage change in tangible book value per share plus change in accumulated dividends, percentage change in book value per share plus change in accumulated dividends, and average underwriting expense ratio rank are calculated in accordance with the terms of the applicable award agreement.

Cash Settled Restricted Stock Units

CSRSUs are liability awards with fair value measurement based on the fair market value of the Company’s common shares at the end of each reporting period. CSRSUs granted periodically pursuant to the 2016 Restricted Stock Unit Plan generally vest ratably over 4 years.

Valuation Assumptions

Performance Share Awards Granted in March 2018

The fair value of performance share awards granted in March 2018 is measured on the grant date using a Monte Carlo simulation model which requires the following inputs: share price; expected volatility; expected term; expected dividend yield; and risk-free interest rates. The following are the weighted average-assumptions used to estimate the fair value for all performance share awards issued in each respective year.

Year ended December 31,	Performance Share Awards		
	2020	2019	2018
Expected volatility (1)	n/a	n/a	15.8%
Expected term (in years)	n/a	n/a	n/a
Expected dividend yield	n/a	n/a	n/a
Risk-free interest rate (1)	n/a	n/a	1.85% - 2.36%

(1) The expected volatility and risk-free interest rate applied are specific to each tranche of performance share awards.

Expected volatility: The expected volatility is estimated by the Company based on RenaissanceRe's historical stock volatility.

Expected term: The expected term is not applicable as the length of the performance periods are fixed and not subject to future employee behavior. Each tranche of the performance share awards has a one year period during which performance is measured.

Expected dividend yield: The expected dividend yield is not applicable to performance share awards as dividends are paid at the end of the vesting period and do not affect the value of the performance shares.

Risk-free interest rate: The risk free rate is estimated based on the yield on a U.S. treasury zero-coupon issued with a remaining term equal to the vesting period of the performance share awards.

For performance share awards granted in March 2018, the total cost of the performance share awards is determined on the grant date based on the fair value calculated by the Monte Carlo simulation model. The Company recognizes cost equal to fair value per performance share award multiplied by the target number of performance share awards on the grant date. The cost is then amortized as an expense over the requisite service period. The Company has elected to recognize forfeitures as they occurred rather than estimating service-based forfeitures over the requisite service period.

Performance Share Awards Granted in May 2018 and March 2019

For performance share awards granted in May 2018 and March 2019, the performance metric relates to the percentage change in tangible book value per share plus change in accumulated dividends which is classified as a performance condition under FASB ASC Topic *Compensation - Stock Compensation*. As a result, the fair value of the performance share awards is determined based on the fair market value of RenaissanceRe's common shares on the grant date. The estimated fair value of performance share awards is amortized as an expense over the requisite service period.

Performance Share Awards Granted in March 2020

For performance share awards granted in March 2020, the performance metrics relates to (i) the percentage change in book value per share plus change in accumulated dividends and (ii) average underwriting expense ratio rank compared to peers, both of which are classified as performance conditions under FASB ASC Topic *Compensation - Stock Compensation*. As a result, the fair value of the performance share awards is determined based on the fair market value of RenaissanceRe's common shares on the

grant date. The estimated fair value of performance share awards is amortized as an expense over the requisite service period.

Restricted Stock Awards

The fair value of restricted stock awards is determined based on the fair market value of RenaissanceRe's common shares on the grant date. The estimated fair value of restricted stock awards is amortized as an expense over the requisite service period. The Company has elected to recognize forfeitures as they occurred rather than estimating service-based forfeitures over the requisite service period.

Cash Settled Restricted Stock Units

CSRSUs are revalued at the end of each quarterly reporting period based on the then fair market value of RenaissanceRe's common shares. The total cost is adjusted each quarter for unvested CSRSUs to reflect the current share price, and this total cost is amortized as an expense over the requisite service period. The Company has elected to recognize forfeitures as they occurred rather than estimating service-based forfeitures over the requisite service period.

Summary of Stock Compensation Activity

Cash Settled Restricted Stock Units

	Number of Shares
Nonvested at December 31, 2017	262,330
Awards granted	—
Awards vested	(108,344)
Awards forfeited	(7,069)
Nonvested at December 31, 2018	146,917
Awards granted	—
Awards vested	(80,012)
Awards forfeited	(3,161)
Nonvested at December 31, 2019	63,744
Awards granted	—
Awards vested	(44,734)
Awards forfeited	(529)
Nonvested at December 31, 2020	18,481

Performance Share Awards

	Number of Shares (1)	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2017	167,673	\$ 53.11
Awards granted	83,475	60.69
Awards vested	(16,456)	53.79
Awards forfeited	(82,241)	—
Nonvested at December 31, 2018	152,451	\$ 57.21
Awards granted	58,050	146.10
Awards vested	(21,730)	49.90
Awards forfeited	(43,924)	—
Nonvested at December 31, 2019	144,847	\$ 94.70
Awards granted	65,840	170.40
Awards vested	(48,997)	61.48
Awards forfeited	(9,976)	—
Nonvested at December 31, 2020	151,714	\$ 140.96

(1) For performance share awards, the number of shares is stated at the maximum number that can be attained if the performance conditions are fully met. Forfeitures represent shares forfeited due to vesting below the maximum attainable as a result of the Company not fully meeting the performance conditions.

Restricted Stock Awards

	Employee Restricted Stock Awards		Non-Employee Director Restricted Stock Awards		Total Restricted Stock Awards	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2017	333,037	\$ 120.93	20,126	\$ 131.09	353,163	\$ 121.51
Awards granted	255,799	132.70	12,169	127.29	267,968	132.79
Awards vested	(139,454)	112.70	(9,761)	123.59	(149,215)	113.41
Awards forfeited	(1,642)	134.38	—	—	(1,642)	134.38
Nonvested at December 31, 2018	447,740	\$ 130.37	22,534	\$ 132.29	470,274	\$ 130.46
Awards granted	242,832	146.92	11,444	147.43	254,276	146.94
Awards vested	(165,245)	124.71	(12,972)	131.88	(178,217)	125.23
Awards forfeited	(14,467)	136.16	—	—	(14,467)	136.16
Nonvested at December 31, 2019	510,860	\$ 139.91	21,006	\$ 140.79	531,866	\$ 139.94
Awards granted	309,892	145.03	9,970	170.40	319,862	145.82
Awards vested	(213,488)	138.35	(10,316)	141.12	(223,804)	138.47
Awards forfeited	(14,517)	140.11	—	—	(14,517)	140.11
Nonvested at December 31, 2020	592,747	\$ 143.14	20,660	\$ 155.03	613,407	\$ 143.54

There were 1.0 million shares available for issuance under the 2016 Long-Term Incentive Plan at December 31, 2020.

The aggregate fair value of restricted stock awards, performance share awards and CSRSUs vested during 2020 was \$54.7 million (2019 – \$41.6 million, 2018 – \$37.2 million). Cash in the amount of \$Nil was received from employees as a result of employee stock option exercises during 2020 (2019 – \$Nil, 2018 –

\$Nil). In connection with share vestings and option exercises, there was a \$0.3 million excess windfall tax benefit realized by the Company in 2020 (2019 – \$0.2 million, 2018 – \$Nil). RenaissanceRe issues new shares upon the exercise of an option.

The total stock compensation expense recognized in the Company's consolidated statements of operations during 2020 was \$43.7 million (2019 – \$41.4 million, 2018 – \$35.7 million). As of December 31, 2020, there was \$62.5 million of total unrecognized compensation cost related to restricted stock awards, \$0.5 million related to CSRSUs and \$6.1 million related to performance share awards, which will be recognized, on a weighted average basis, during the next 1.7, 0.2 and 1.7 years, respectively.

All of the Company's employees are eligible for defined contribution pension plans. Contributions are primarily based upon a percentage of eligible compensation. The Company contributed \$6.7 million to its defined contribution pension plans in 2020 (2019 – \$4.9 million, 2018 – \$4.1 million).

NOTE 18. STATUTORY REQUIREMENTS

The Company's (re)insurance operations are subject to insurance laws and regulations in the jurisdictions in which they operate, the most significant of which currently include Bermuda, Switzerland, the U.K. and the U.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 of the respective regulatory authorities.

Group Supervision

The BMA is the group supervisor of the Company. Under the Insurance Act 1978, amendments thereto and related regulations of Bermuda (collectively, the "Insurance Act"), the Company shall ensure that it can meet its minimum solvency margin, defined as the prescribed minimum amount by which the value of the assets of the Company must exceed the value of its liabilities, the breach of which represents an unacceptable level of risk and triggers the strongest supervisory actions.

In addition, the Company is required to maintain statutory economic capital and surplus at a level equal to or in excess of its enhanced capital requirement ("ECR") which is established by reference to the Bermuda Solvency Capital Requirement (the "BSCR") model. The BSCR is a mathematical model designed to give the BMA robust methods for determining an insurer's capital adequacy. The ECR is equal to the greater of the minimum solvency margin or required capital calculated by reference to the BSCR. The Economic Balance Sheet ("EBS") is an input to the BSCR which determines the Company's ECR. The EBS regime prescribes the use of financial statements prepared in accordance with GAAP as the basis on which statutory financial statements are prepared, and those statutory financial statements form the starting basis for the EBS.

The BMA has established a target capital level which is set at 120% of the ECR. While the Company is not required to maintain statutory economic capital and surplus at this level, it serves as an early warning signal for the BMA, and failure to meet the target capital level may result in additional reporting requirements or increased regulatory oversight. The Company is currently completing its 2020 group BSCR, which must be filed with the BMA on or before May 31, 2021, and at this time, the Company believes it will exceed the target level of required statutory economic capital and surplus.

The statutory capital and surplus, required minimum statutory capital and surplus and unrestricted net assets of the Company's regulated insurance operations in its most significant regulatory jurisdictions are detailed below:

At December 31,	Bermuda (1)		Switzerland (2)		U.K. (3) (4)		U.S.	
	2020	2019	2020	2019	2020	2019	2020	2019
Statutory capital and surplus	\$ 6,692,333	\$ 6,328,887	\$ 819,481	\$ 542,584	\$ 874,170	\$ 675,864	\$ 715,171	\$ 677,729
Required statutory capital and surplus	1,307,919	1,336,597	587,300	465,900	874,170	675,864	476,340	394,204
Unrestricted net assets	1,720,899	1,246,201	237,822	65,292	—	—	71,517	46,630

- (1) The Company's Bermuda-domiciled insurance subsidiaries' capital and surplus is based on the relevant insurer's statutory financial statements and required statutory capital and surplus is based on the minimum solvency margin.
- (2) RREAG's statutory capital and surplus and required statutory capital and surplus incorporate a full year of statutory net loss and risk capital, respectively.
- (3) With respect to statutory capital and surplus and required statutory capital and surplus, and as described below, underwriting capacity of a member of Lloyd's must be supported by providing a deposit in the form of cash, securities or letters of credit, which are referred to as Funds at Lloyd's ("FAL"). FAL is determined by Lloyd's and is based on Syndicate 1458's solvency and capital requirements as calculated through its internal model.
- (4) Syndicate 1458 is capitalized by its FAL, with the related assets not held on its balance sheet. As such, unrestricted net assets is not applicable to Syndicate 1458; however, the Company can make an application to obtain approval from Lloyd's to have funds released to RenaissanceRe from Syndicate 1458, subject to passing a Lloyd's release test.

Statutory net income (loss) of the Company's regulated insurance operations in its most significant regulatory jurisdictions are detailed below:

	Statutory Net Income (Loss)			
	Bermuda	Switzerland	U.K.	U.S.
Year ended December 31, 2020	\$ 836,707	\$ 76,473	\$ (37,427)	\$ 16,991
Year ended December 31, 2019	705,808	(52,699)	(666,595)	37,827
Year ended December 31, 2018	326,386	—	(6,692)	25,851

The difference between statutory financial statements and statements prepared in accordance with GAAP varies by jurisdiction; however, the primary difference is that for the Company's regulated entities the statutory financial statements generally do not reflect goodwill and intangible assets. Also, in the U.S., fixed maturity investments are generally recorded at amortized cost and deferred income tax is charged directly to equity. In the U.S. and Bermuda, deferred acquisition costs are generally not reflected in the statutory financial statements. In Switzerland, currency translation adjustment losses are directly charged to net income or loss, while translation gains are not admissible and reflected as translation reserve on the statutory balance sheet. In addition, fixed maturity investments are carried at the lower of amortized cost and market value and recognition of equalization reserves is allowed. The prudence principle standard also allows for valuing certain assets below their nominal value. None of the Company's insurance subsidiaries used permitted practices that prevented the trigger of a regulatory event during the years ended December 31, 2020, 2019 and 2018.

Dividend Restrictions of RenaissanceRe

As a Bermuda-domiciled holding company, RenaissanceRe has limited operations of its own. Its assets consist primarily of investments in subsidiaries and cash and securities. As a result, the Company relies primarily on dividends and distributions (and other statutorily permissible payments) from its subsidiaries, investment income and fee income to meet its liquidity requirements, which primarily include making principal and interest payments on its debt, and dividend payments to its preference and common shareholders.

The payment of dividends by our subsidiaries is, under certain circumstances, limited by the applicable laws and regulations in the various jurisdictions in which our subsidiaries operate, including Bermuda, the U.S., the U.K., Switzerland, Australia, Singapore and Ireland. In addition, insurance laws require our insurance subsidiaries to maintain certain measures of solvency and liquidity.

Bermuda-Domiciled Insurance Entities

Under the Insurance Act, certain subsidiaries of RenaissanceRe are required to prepare and file statutory financial statements. The BMA prescribed the use of financial statements prepared in accordance with GAAP as the basis on which the statutory financial statements are prepared, subject to the application of certain prudential filters. These statutory financial statements are used to prepare the EBS. In addition, Bermuda insurance subsidiaries of RenaissanceRe are required to maintain certain measures of solvency and liquidity and file a BSCR return.

Class 3B and Class 4 Insurers

Under the Insurance Act, RenaissanceRe Specialty U.S. and Vermeer are defined as Class 3B insurers, and Renaissance Reinsurance and DaVinci are classified as Class 4 insurers, and therefore must maintain statutory economic capital and surplus at a level at least equal to its ECR which is the greater of its minimum solvency margin and the required capital calculated by reference to the BSCR.

Class 3B and Class 4 insurers are prohibited from declaring or paying any dividends if in breach of the required minimum solvency margin or minimum liquidity ratio (the "Relevant Margins") or if the declaration or payment of such dividend would cause the insurer to fail to meet the Relevant Margins. Where an insurer fails to meet its Relevant Margins on the last day of any financial year, it is prohibited from declaring or paying any dividends during the next financial year without the prior approval of the BMA. Further, Class 3B and Class 4 insurers are prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet) unless it files (at least seven days before payment of such dividends) with the BMA an affidavit stating that it will continue to meet its Relevant Margins. Class 3B and Class 4 insurers must obtain the BMA's prior approval for a reduction by 15% or more of the total statutory capital as set forth in its previous year's financial statements. These restrictions on declaring or paying dividends and distributions under the Insurance Act are in addition to the solvency requirements under the Bermuda Companies Act 1981 which apply to all Bermuda companies. In addition, an insurer engaged in general business is also required to maintain the value of its relevant assets at not less than 75% of the amount of its relevant liabilities.

The Company is currently completing its 2020 Bermuda-domiciled statutory filings for Renaissance Reinsurance, DaVinci, RenaissanceRe Specialty U.S. and Vermeer, which must be filed with the BMA on or before April 30, 2021, and at this time, the Company believes each of Renaissance Reinsurance, DaVinci, RenaissanceRe Specialty U.S. and Vermeer will exceed the target level of required statutory economic capital.

SPIs

Under the Insurance Act, Upsilon RFO is considered an SPI. Refer to "Note 11. Variable Interest Entities" for additional information related to Upsilon RFO. Unlike other (re)insurers, such as the Class 3B and Class 4 insurers discussed above, SPIs are fully funded to meet their (re)insurance obligations and are not exposed to insolvency, therefore the application and supervision processes are streamlined to facilitate the transparent structure. Further, the BMA has the discretion to modify such insurer's reporting requirements under the Insurance Act. Like other (re)insurers, the principal representative of an SPI has a duty to inform the BMA in relation to solvency matters, where applicable. Upsilon RFO applied for and received a direction from the BMA, which, subject to specified conditions, modified its filing requirements in respect of statutory financial statements for the years ended December 31, 2020.

Switzerland Domiciled Insurance Entity

RREAG is regulated by the Swiss Financial Market Supervisory Authority ("FINMA") pursuant to the Insurance Supervision Act. Its accounts are prepared in accordance with the Swiss Code of Obligations, the Insurance Supervision Act and the Insurance Supervision Ordinance. RREAG is obligated to maintain a minimum level of capital based on the Swiss Code of Obligations and Insurance Supervision Act. In addition, it is required to perform a minimum solvency margin calculation based on the Swiss Solvency Test ("SST") regulations as stipulated by the Insurance Supervision Act and the Insurance Supervision Ordinance. The SST is based on an economic view and required capital is derived from a combination of internal and standard models. While the minimum required capital under both the Swiss Code of Obligations and the Insurance Supervision Act might be met, the actual minimum threshold is the target

capital as determined from the SST. The dividend amount that RREAG is permitted to distribute is restricted to freely distributable reserves, which consist of retained earnings and the current year profit less any executed intra group loans. The solvency and capital requirements must still be met following any distribution. RREAG is currently completing its 2020 statutory basis financial statements, which we expect to file with FINMA on or before April 30, 2021. At December 31, 2020, the Company believes that RREAG will exceed the minimum solvency and capital requirements required to be maintained under Swiss law.

RREAG has active branches in Australia, Bermuda, and the U.K., with the U.S. branch in run off. RenaissanceRe Europe AG, Australia Branch ("RREAG, Australia Branch") is regulated by the Australian Prudential Regulation Authority ("APRA") and is authorized to carry on insurance business under subsection 12(2) of the Insurance Act 1973. RREAG, Australia Branch's regulatory reporting is prepared in accordance with the Australian Accounting Standards and APRA Prudential Standards. APRA Prudential Standards require the maintenance of net assets in Australia in excess of a calculated Prescribed Capital Amount. At December 31, 2020, the Company believes the net assets in Australia of RREAG, Australia Branch were above the Prescribed Capital Amount estimated under the APRA Prudential Standards.

RenaissanceRe Europe AG, Bermuda Branch is registered as a Class 3B insurer under the Insurance Act. For the year ended December 31, 2020, it was granted modifications to the requirements to file an annual statutory financial return, financial condition report, and capital and solvency return. These are the same modifications granted for the year ended December 31, 2019.

RenaissanceRe Europe AG, UK Branch is authorized by the Prudential Regulation Authority (the "PRA"), and is regulated by both the PRA and Financial Conduct Authority (the "FCA"). It is subject to the Solvency II regime and applied for and was granted a modification of the rules for the year ended December 31, 2020.

RenaissanceRe Europe AG, US Branch ("RREAG, US Branch") is required to file statutory basis financial statements prepared in accordance with statutory accounting practices prescribed or permitted by the U.S. insurance regulators. RREAG, US Branch, whose port of entry is New York, is subject to statutory accounting principles as defined by the National Association of Insurance Commissions ("NAIC"). The NAIC uses a risk-based capital ("RBC") model to monitor and regulate the solvency of licensed life, health, and property and casualty insurance and reinsurance companies. The state of New York has adopted the NAIC's model law.

Laws and regulations in the U.S. establish minimum capital adequacy levels and grant regulators the authority to take specific actions based on the level of impairment. The RREAG, US Branch's minimum required statutory capital and surplus is based on Company Action Level RBC or minimum requirements per state insurance regulation. The Company is currently completing the 2020 statutory basis financial statements for RREAG, US Branch, which must be filed with the state of New York, the NAIC and other state insurance regulators on or before March 1, 2021. At this time, the Company believes that RREAG, US Branch will exceed the minimum required statutory capital and surplus.

U.K.-Domiciled Syndicate 1458

RenaissanceRe CCL and Syndicate 1458 are subject to oversight by the Council of Lloyd's. RSML is authorized by the U.K.'s Prudential Regulation Authority and regulated by the Financial Conduct Authority under the Financial Services and Markets Act 2000. Underwriting capacity of a member of Lloyd's must be supported by providing a deposit in the form of cash, securities or letters of credit, which are referred to as FAL. This amount is determined by Lloyd's and is based on Syndicate 1458's solvency and capital requirement as calculated through its internal model. In addition, if the FAL are not sufficient to cover all losses, the Lloyd's Central Fund provides an additional discretionary level of security for policyholders.

U.S.-Domiciled Insurance Entities

Renaissance Reinsurance U.S. is subject to statutory accounting principles as defined by the NAIC. As noted above, the NAIC uses a RBC model to monitor and regulate the solvency of licensed life, health, and property and casualty insurance and reinsurance companies. Renaissance Reinsurance U.S. is domiciled in Maryland, which has adopted the NAIC's model law.

Laws and regulations in the U.S. establish minimum capital adequacy levels and grant regulators the authority to take specific actions based on the level of impairment. Based on Maryland's adoption of the

RBC model of the NAIC, the first level at which action is required is Company Action Level RBC. If Renaissance Reinsurance U.S.'s total adjusted capital is less than Company Action Level RBC (but greater than Regulatory Action Level RBC), then Renaissance Reinsurance U.S. must file an RBC plan with the Maryland Insurance Commissioner (the "Commissioner"). If Renaissance Reinsurance U.S.'s total adjusted capital is less than Regulatory Action Level RBC, then the Commissioner must take certain regulatory actions.

Under Maryland insurance law, Renaissance Reinsurance U.S. must notify the Commissioner within five business days after the declaration of any dividend or distribution, other than an extraordinary dividend or extraordinary distribution, and notify the Commissioner at least ten days prior to the payment or distribution thereof. The Commissioner has the right to prevent payment of such a dividend or such a distribution if the Commissioner determines, in the Commissioner's discretion, that after the payment thereof, the policyholders' surplus of Renaissance Reinsurance U.S. would be inadequate or could cause Renaissance Reinsurance U.S. to be in a hazardous financial condition. Renaissance Reinsurance U.S. must give at least 30 days prior notice to the Commissioner before paying an extraordinary dividend or making an extraordinary distribution. Extraordinary dividends and extraordinary distributions are dividends or distributions which, together with any other dividends and distributions paid during the immediately preceding twelve-month period, would exceed the lesser of:

- 10% of the insurer's statutory policyholders' surplus (as determined under statutory accounting principles) as of December 31 of the prior year; or
- the insurer's net investment income excluding realized capital gains (as determined under statutory accounting principles) for the twelve-month period ending on December 31 of the prior year and pro rata distributions of any class of the insurer's securities, plus any amounts of net investment income (subject to the foregoing exclusions) in the three calendar years prior to the preceding year which have not been paid out as dividends.

At December 31, 2020, Renaissance Reinsurance U.S. had an ordinary dividend capacity of \$71.5 million which can be paid in 2021.

Renaissance Reinsurance U.S. is required to file statutory basis financial statements with the Maryland Insurance Administration ("MIA"), as its domestic regulator, with the NAIC and with insurance regulators in certain other states where it is licensed, authorized or accredited to do business. The operations of Renaissance Reinsurance U.S. are subject to examination by those state insurance regulators at any time. The Company is currently completing the 2020 statutory basis financial statements for Renaissance Reinsurance U.S., which must be filed with the MIA, the NAIC, and other state insurance regulators on or before March 1, 2021. At this time, the Company believes Renaissance Reinsurance U.S. will exceed the minimum required statutory capital and surplus.

Multi-Beneficiary Reinsurance Trusts

Each of Renaissance Reinsurance and DaVinci was approved as a Trusteed Reinsurer in the state of New York and established a multi-beneficiary reinsurance trust ("MBRT") to collateralize its (re)insurance liabilities associated with U.S. domiciled cedants. The MBRTs are subject to the rules and regulations of the state of New York and the respective deed of trust, including but not limited to certain minimum capital funding requirements, investment guidelines, capital distribution restrictions and regulatory reporting requirements. Assets held under trust at December 31, 2020 with respect to the MBRTs totaled \$1.3 billion and \$289.6 million for Renaissance Reinsurance and DaVinci, respectively (2019 – \$1.3 billion and \$336.5 million, respectively), compared to the minimum amount required under U.S. state regulations of \$878.2 million and \$270.5 million, respectively (2019 – \$927.4 million and \$249.4 million, respectively).

Multi-Beneficiary Reduced Collateral Reinsurance Trusts

Each of Renaissance Reinsurance, RREAG and DaVinci has been approved as a "certified reinsurer" eligible for collateral reduction in certain states, and are authorized to provide reduced collateral equal to 20%, 20% and 50%, respectively, of their net outstanding insurance liabilities to insurers domiciled in each of those states. Each of Renaissance Reinsurance, RREAG and DaVinci has established a multi-beneficiary reduced collateral reinsurance trust to collateralize its (re)insurance liabilities associated with cedants domiciled in those states. Because these reduced collateral reinsurance trusts were established in New York, they are subject to the rules and regulations of the state of New York including but not limited to

certain minimum capital funding requirements, investment guidelines, capital distribution restrictions and regulatory reporting requirements. Assets held under trust at December 31, 2020 with respect to such reduced collateral reinsurance trusts totaled \$74.4 million and \$90.1 million for Renaissance Reinsurance and DaVinci, respectively (2019 - \$51.7 million and \$43.8 million, respectively), compared to the minimum amount required under U.S. state regulations of \$70.0 million and \$86.5 million, respectively (2019 - \$40.3 million and \$40.9 million, respectively). The reduced collateral reinsurance trust for RREAG was not funded as of December 31, 2020.

NOTE 19. DERIVATIVE INSTRUMENTS

From time to time, the Company may enter into derivative instruments such as futures, options, swaps, forward contracts and other derivative contracts primarily to manage its foreign currency exposure, obtain exposure to a particular financial market, for yield enhancement, or for trading and to assume risk. The Company's derivative instruments can be exchange traded or over-the-counter, with over-the-counter derivatives generally traded under International Swaps and Derivatives Association master agreements, which establish the terms of the transactions entered into with the Company's derivative counterparties. In the event a party becomes insolvent or otherwise defaults on its obligations, a master agreement generally permits the non-defaulting party to accelerate and terminate all outstanding transactions and net the transactions' marked-to-market values so that a single sum in a single currency will be owed by, or owed to, the non-defaulting party. Effectively, this contractual close-out netting reduces credit exposure from gross to net exposure. Where the Company has entered into master netting agreements with counterparties, or the Company has the legal and contractual right to offset positions, the derivative positions are generally netted by counterparty and are reported accordingly in other assets and other liabilities.

The tables below show the gross and net amounts of recognized derivative assets and liabilities at fair value, including the location on the consolidated balance sheets of the Company's principal derivative instruments:

At December 31, 2020	Derivative Assets					
	Gross Amounts of Recognized Assets	Gross Amounts Offset in the Balance Sheet	Net Amounts of Assets Presented in the Balance Sheet	Balance Sheet Location	Collateral	Net Amount
Derivative Instruments Not Designated as Hedges						
Interest rate futures	\$ 1,019	\$ 863	\$ 156	Other assets	\$ —	\$ 156
Interest rate swaps	22	—	22	Other assets	—	22
Foreign currency forward contracts (1)	23,055	184	22,871	Other assets	—	22,871
Foreign currency forward contracts (2)	2,232	69	2,163	Other assets	—	2,163
Credit default swaps	68	—	68	Other assets	—	68
Total derivative instruments not designated as hedges	26,396	1,116	25,280		—	25,280
Derivative Instruments Designated as Hedges						
Foreign currency forward contracts (3)	19,953	—	19,953	Other assets	—	19,953
Total	\$ 46,349	\$ 1,116	\$ 45,233		\$ —	\$ 45,233

At December 31, 2020	Derivative Liabilities					
	Gross Amounts of Recognized Liabilities	Gross Amounts Offset in the Balance Sheet	Net Amounts of Liabilities Presented in the Balance Sheet	Balance Sheet Location	Collateral Pledged	Net Amount
Derivative Instruments Not Designated as Hedges						
Interest rate futures	\$ 1,430	\$ 863	\$ 567	Other liabilities	\$ 567	\$ —
Foreign currency forward contracts (1)	12,791	—	12,791	Other liabilities	—	12,791
Foreign currency forward contracts (2)	3,919	69	3,850	Other liabilities	1,053	2,797
Total derivative instruments not designated as hedges	18,140	932	17,208		1,620	15,588
Derivative Instruments Designated as Hedges						
Foreign currency forward contracts (3)	5,152	—	5,152	Other liabilities	—	5,152
Total	\$ 23,292	\$ 932	\$ 22,360		\$ 1,620	\$ 20,740

(1) Contracts used to manage foreign currency risks in underwriting and non-investment operations.

(2) Contracts used to manage foreign currency risks in investment operations.

(3) Contracts designated as hedges of a net investment in a foreign operation.

Derivative Assets						
At December 31, 2019	Gross Amounts of Recognized Assets	Gross Amounts Offset in the Balance Sheet	Net Amounts of Assets Presented in the Balance Sheet	Balance Sheet Location	Collateral	Net Amount
Derivative Instruments Not Designated as Hedges						
Interest rate futures	\$ 234	\$ 122	\$ 112	Other assets	\$ —	\$ 112
Foreign currency forward contracts (1)	22,702	2,418	20,284	Other assets	—	20,284
Foreign currency forward contracts (2)	1,082	622	460	Other assets	—	460
Credit default swaps	37	—	37	Other assets	—	37
Total return swaps	3,744	—	3,744	Other assets	3,601	143
Equity futures	291	—	291	Other assets	—	291
Total derivative instruments not designated as hedges	28,090	3,162	24,928		3,601	21,327
Derivative Instruments Designated as Hedges						
Foreign currency forward contracts (3)	64	667	(603)	Other assets	—	(603)
Total	\$ 28,154	\$ 3,829	\$ 24,325		\$ 3,601	\$ 20,724

Derivative Liabilities						
At December 31, 2019	Gross Amounts of Recognized Liabilities	Gross Amounts Offset in the Balance Sheet	Net Amounts of Liabilities Presented in the Balance Sheet	Balance Sheet Location	Collateral Pledged	Net Amount
Derivative Instruments Not Designated as Hedges						
Interest rate futures	\$ 1,545	\$ 122	\$ 1,423	Other liabilities	\$ 1,423	\$ —
Interest rate swaps	50	—	50	Other liabilities	50	—
Foreign currency forward contracts (1)	3,808	28	3,780	Other liabilities	—	3,780
Foreign currency forward contracts (2)	939	622	317	Other liabilities	—	317
Total derivative instruments not designated as hedges	6,342	772	5,570		1,473	4,097
Derivative Instruments Designated as Hedges						
Foreign currency forward contracts (3)	1,818	—	1,818	Other liabilities	—	1,818
Total	\$ 8,160	\$ 772	\$ 7,388		\$ 1,473	\$ 5,915

- (1) Contracts used to manage foreign currency risks in underwriting and non-investment operations.
(2) Contracts used to manage foreign currency risks in investment operations.
(3) Contracts designated as hedges of a net investment in a foreign operation.

Refer to “Note 5. Investments” for information on reverse repurchase agreements.

The location and amount of the gain (loss) recognized in the Company’s consolidated statements of operations related to its principal derivative instruments are shown in the following table:

Year ended December 31,	Location of gain (loss) recognized on derivatives	Amount of gain (loss) recognized on derivatives		
		2020	2019	2018
Derivative Instruments Not Designated as Hedges				
Interest rate futures	Net realized and unrealized gains (losses) on investments	\$ 103,102	\$ 16,848	\$ 6,109
Interest rate swaps	Net realized and unrealized gains (losses) on investments	2,334	1,488	(84)
Foreign currency forward contracts (1)	Net foreign exchange gains (losses)	24,309	12,617	3,840
Foreign currency forward contracts (2)	Net foreign exchange gains (losses)	(4,450)	(1,605)	5,736
Credit default swaps	Net realized and unrealized gains (losses) on investments	(1,304)	7,043	(3,106)
Total return swaps	Net realized and unrealized gains (losses) on investments	(5,479)	12,155	—
Equity futures	Net realized and unrealized gains (losses) on investments	(30,045)	21,357	(515)
Total derivative instruments not designated as hedges		88,467	69,903	11,980
Derivative instruments designated as hedges				
Foreign currency forward contracts (3)	Accumulated other comprehensive loss	11,685	959	—
Total		\$ 100,152	\$ 70,862	\$ 11,980

(1) Contracts used to manage foreign currency risks in underwriting and non-investment operations.

(2) Contracts used to manage foreign currency risks in investment operations.

(3) Contracts designated as hedges of a net investment in a foreign operation.

The Company is not aware of the existence of any credit-risk related contingent features that it believes would be triggered in its derivative instruments that are in a net liability position at December 31, 2020.

Derivative Instruments Not Designated as Hedges

Interest Rate Derivatives

The Company uses interest rate futures and swaps within its portfolio of fixed maturity investments to manage its exposure to interest rate risk, which may result in increasing or decreasing its exposure to this risk.

Interest Rate Futures

The fair value of interest rate futures is determined using exchange traded prices. At December 31, 2020, the Company had \$2.0 billion of notional long positions and \$1.0 billion of notional short positions of primarily Eurodollar and U.S. treasury futures contracts (2019 – \$2.5 billion and \$1.0 billion, respectively).

Interest Rate Swaps

The fair value of interest rate swaps is determined using the relevant exchange traded price where available or a discounted cash flow model based on the terms of the contract and inputs, including, where applicable, observable yield curves. At December 31, 2020, the Company had \$Nil of notional positions paying a fixed rate and \$23.5 million receiving a fixed rate denominated in U.S. dollar swap contracts (2019 - \$27.9 million and \$25.5 million, respectively).

Foreign Currency Derivatives

The Company's functional currency is the U.S. dollar. The Company writes a portion of its business in currencies other than U.S. dollars and may, from time to time, experience foreign exchange gains and losses in the Company's consolidated financial statements. All changes in exchange rates, with the exception of non-monetary assets and liabilities, are recognized in the Company's consolidated statements of operations.

Underwriting and Non-Investments Operations Related Foreign Currency Contracts

The Company's foreign currency policy with regard to its underwriting operations is generally to hold foreign currency assets, including cash, investments and receivables that approximate the foreign currency liabilities, including claims and claim expense reserves and reinsurance balances payable. When necessary, the Company may use foreign currency forward and option contracts to minimize the effect of fluctuating foreign currencies on the value of non-U.S. dollar denominated assets and liabilities associated with its underwriting operations. The fair value of the Company's underwriting operations related foreign currency contracts is determined using indicative pricing obtained from counterparties or broker quotes. At December 31, 2020, the Company had outstanding underwriting related foreign currency contracts of \$661.4 million in notional long positions and \$504.2 million in notional short positions, denominated in U.S. dollars (2019 – \$1.2 billion and \$722.6 million, respectively).

Investment Portfolio Related Foreign Currency Forward Contracts

The Company's investment operations are exposed to currency fluctuations through its investments in non-U.S. dollar fixed maturity investments, short term investments and other investments. From time to time, the Company may employ foreign currency forward contracts in its investment portfolio to either assume foreign currency risk or to economically hedge its exposure to currency fluctuations from these investments. The fair value of the Company's investment portfolio related foreign currency forward contracts is determined using an interpolated rate based on closing forward market rates. At December 31, 2020, the Company had outstanding investment portfolio related foreign currency contracts of \$269.5 million in notional long positions and \$117.5 million in notional short positions, denominated in U.S. dollars (2019 – \$195.6 million and \$61.0 million, respectively).

Credit Derivatives

The Company's exposure to credit risk is primarily due to its fixed maturity investments, short term investments, premiums receivable and reinsurance recoverable. From time to time, the Company may purchase credit derivatives to hedge its exposures in the insurance industry, and to assist in managing the credit risk associated with ceded reinsurance. The Company also employs credit derivatives in its investment portfolio to either assume credit risk or hedge its credit exposure.

Credit Default Swaps

The fair value of the Company credit default swaps is determined using industry valuation models, broker bid indications or internal pricing valuation techniques. The fair value of these credit default swaps can change based on a variety of factors including changes in credit spreads, default rates and recovery rates, the correlation of credit risk between the referenced credit and the counterparty, and market rate inputs such as interest rates. At December 31, 2020, the Company had outstanding credit default swaps of \$Nil in notional positions to hedge credit risk and \$96.8 million in notional positions to assume credit risk, denominated in U.S. dollars (2019 – \$0.5 million and \$143.4 million, respectively).

Total Return Swaps

The Company uses total return swaps as a means to manage spread duration and credit exposure in its investment portfolio. The fair value of the Company's total return swaps is determined using broker-dealer bid quotations, market-based prices from pricing vendors or valuation models. At December 31, 2020, the Company had \$Nil of notional long positions (long credit) and \$Nil of notional short positions (short credit), denominated in U.S. dollars (2019 - \$173.5 million and \$Nil, respectively).

Equity Derivatives

Equity Futures

The Company uses equity derivatives in its investment portfolio from time to time to either assume equity risk or hedge its equity exposure. The fair value of the Company's equity futures is determined using market-based prices from pricing vendors. At December 31, 2020, the Company had \$Nil notional long position and \$Nil notional short position of equity futures, denominated in U.S. dollars (2019 - \$122.0 million and \$Nil, respectively).

Derivative Instruments Designated as Hedges of a Net Investment in a Foreign Operation

Foreign Currency Derivatives

Hedges of a Net Investment in a Foreign Operation

In connection with the acquisition of TMR, the Company acquired certain entities with non-U.S. dollar functional currencies. The Company has entered into foreign exchange forwards to hedge the Australian dollar, Euro and Pound sterling net investment in foreign operations, on an after-tax basis, from changes in the exchange rate between the U.S. dollar and these currencies.

The Company utilizes foreign exchange forward contracts to hedge the fair value of its net investment in a foreign operation. The Company has entered into foreign exchange forward contracts that were formally designated as hedges of its investment in subsidiaries with non-U.S. dollar functional currencies. There was no ineffectiveness in these transactions.

The table below provides a summary of derivative instruments designated as hedges of a net investment in a foreign operation, including the weighted average U.S. dollar equivalent of foreign denominated net assets that were hedged and the resulting derivative gain that was recorded in foreign currency translation adjustments, net of tax, within accumulated other comprehensive loss on the Company's consolidated statements of changes in shareholders' equity:

Year ended December 31,	2020	2019
Weighted average of U.S. dollar equivalent of foreign denominated net assets	\$ (45,803)	\$ 81,264
Derivative gains (1)	\$ 11,685	\$ 959

(1) Derivative (losses) gains from derivative instruments designated as hedges of the net investment in a foreign operation are recorded in foreign currency translation adjustments, net of tax, within accumulated other comprehensive income (loss) on the Company's consolidated statements of changes in shareholders' equity.

NOTE 20. COMMITMENTS, CONTINGENCIES AND OTHER ITEMS

Concentration of Credit Risk

Instruments which potentially subject the Company to concentration of credit risk consist principally of investments, including the Company's equity method investments, cash, premiums receivable and reinsurance balances. The Company limits the amount of credit exposure to any one financial institution and, except for the securities of the U.S. Government and U.S. Government related entities, and money market securities, none of the Company's fixed-maturity and short-term investments exceeded 10% of shareholders' equity at December 31, 2020. Refer to "Note 7. Reinsurance," for information with respect to reinsurance recoverable.

Employment Agreements

The Board of Directors has authorized the execution of employment agreements between the Company and certain officers. These agreements provide for, among other things, severance payments under certain circumstances, as well as accelerated vesting of options and certain restricted stock grants, upon a change in control, as defined in the employment agreements and the Company's stock incentive plan.

Letters of Credit and Other Commitments

At December 31, 2020, the Company's banks have issued letters of credit of \$1.1 billion in favor of certain ceding companies. In connection with the Company's Top Layer Re joint venture, Renaissance Reinsurance has committed \$37.5 million of collateral to support a letter of credit and is obligated to make a mandatory capital contribution of up to \$50.0 million in the event that a loss reduces Top Layer Re's capital and surplus below a specified level. The letters of credit are secured by cash and investments of similar amounts.

Refer to "Note 9. Debt and Credit Facilities" for additional information related to the Company's debt and credit facilities.

Private Equity and Investment Commitments

The Company has committed capital to private equity investments, other investments and investments in other ventures of \$1.8 billion, of which \$809.0 million has been contributed at December 31, 2020. The Company's remaining commitments to these investments at December 31, 2020 totaled \$1.0 billion. These commitments do not have a defined contractual commitment date.

Indemnifications and Warranties

In the ordinary course of its business, the Company may enter into contracts or agreements that contain indemnifications or warranties. Future events could occur that lead to the execution of these provisions against the Company. Based on past experience, management currently believes that the likelihood of such an event is remote.

Leases

The Company's operating leases primarily relate to office space for its global underwriting platforms principally in Bermuda, Australia, Ireland, Singapore, Switzerland, the U.K. and the U.S. These leases expire at various dates through 2029 with a weighted average lease term of 3.7 years. Included in other assets and other liabilities at December 31, 2020 is a right-to-use asset of \$29.8 million and a lease liability of \$29.9 million, respectively, associated with the Company's operating leases and reflected as a result of the Company's adoption of FASB ASC Topic Leases (2019 - \$42.8 million and \$42.9 million, respectively). During 2020, the Company recorded an operating lease expense of \$9.8 million included in operating expenses (2019 - \$8.5 million).

The Company's financing leases primarily relate to office space in Bermuda with an initial lease term of 20 years, ending in 2028, and a bargain renewal option for an additional 30 years. Included in other assets and other liabilities at December 31, 2020 is a right-to-use asset of \$18.0 million and a lease liability of \$22.9 million, respectively, associated with the Company's finance leases (2019 - \$19.8 million and \$25.1 million, respectively). During 2020, the Company recorded interest expense of \$2.3 million associated with its finance leases (2019 - \$2.6 million) included in other income and amortization of its finance leases right-to-use asset of \$0.5 million included in operating expenses (2019 - \$0.9 million).

Future minimum lease payments under existing operating and finance leases are detailed below, excluding the bargain renewal option on the finance lease related to office space in Bermuda:

	Future Minimum Lease Payments	
	Operating Leases	Finance Leases
2021	\$ 8,250	\$ 2,661
2022	7,379	2,661
2023	4,107	2,661
2024	2,987	2,661
2025	2,864	2,661
After 2025	8,767	7,468
Future minimum lease payments under existing leases	\$ 34,354	\$ 20,773

Legal Proceedings

The Company and its subsidiaries are subject to lawsuits and regulatory actions in the normal course of business that do not arise from or directly relate to claims on reinsurance treaties or contracts or direct surplus lines insurance policies. In the Company's industry, business litigation may involve allegations of underwriting or claims-handling errors or misconduct, disputes relating to the scope of, or compliance with, the terms of delegated underwriting agreements, employment claims, regulatory actions or disputes arising from the Company's business ventures. The Company's operating subsidiaries are subject to claims litigation involving, among other things, disputed interpretations of policy coverages. Generally, the Company's direct surplus lines insurance operations are subject to greater frequency and diversity of claims and claims-related litigation than its reinsurance operations and, in some jurisdictions, may be subject to direct actions by allegedly injured persons or entities seeking damages from policyholders. These lawsuits, involving or arising out of claims on policies issued by the Company's subsidiaries which are typical to the insurance industry in general and in the normal course of business, are considered in its loss and loss expense reserves. In addition, the Company may from time to time engage in litigation or arbitration related to its claims for payment in respect of ceded reinsurance, including disputes that challenge the Company's ability to enforce its underwriting intent. Such matters could result, directly or indirectly, in providers of protection not meeting their obligations to the Company or not doing so on a timely basis. The Company may also be subject to other disputes from time to time, relating to operational or other matters distinct from insurance or reinsurance claims. Any litigation or arbitration, or regulatory process, contains an element of uncertainty, and the value of an exposure or a gain contingency related to a dispute is difficult to estimate. The Company believes that no individual litigation or arbitration to which it is presently a party is likely to have a material adverse effect on its financial condition, business or operations.

NOTE 21. SALE OF RENAISSANCERE UK

On February 4, 2020, RenaissanceRe Specialty Holdings entered into an agreement to sell its wholly owned subsidiary, RenaissanceRe UK, a U.K. run-off company, to an investment vehicle managed by AXA Liabilities Managers, an affiliate of AXA XL. The sale received regulatory approval on July 17, 2020 and closed on August 18, 2020. The Company recognized a pre-tax loss on the sale of RenaissanceRe UK of \$30.2 million, which is included in corporate expenses in the Company's consolidated statements of operations for 2020. The loss on sale includes amounts related to prior purchase GAAP adjustments and cumulative currency translation adjustments recorded since the acquisition of RenaissanceRe UK. The financial results of RenaissanceRe UK for the period from January 1, 2020 through August 18, 2020, are recorded in the Company's consolidated statements of operations as part of net income available to RenaissanceRe common shareholders for 2020. Prior to the sale, the underwriting activities of RenaissanceRe UK were principally all within the Company's Casualty and Specialty segment.

NOTE 22. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

	Quarter ended March 31,		Quarter ended June 30,		Quarter ended September 30,		Quarter ended December 31,	
	2020	2019	2020	2019	2020	2019	2020	2019
Revenues								
Gross premiums written	\$ 2,025,721	\$ 1,564,295	\$ 1,701,872	\$ 1,476,908	\$ 1,143,058	\$ 861,068	\$ 935,514	\$ 905,479
Net premiums written	\$ 1,269,808	\$ 929,031	\$ 1,180,803	\$ 1,022,965	\$ 899,411	\$ 704,130	\$ 746,311	\$ 725,367
(Increase) decrease in unearned premiums	(356,710)	(379,003)	(170,707)	(111,463)	100,772	202,618	282,774	244,758
Net premiums earned	913,098	550,028	1,010,096	911,502	1,000,183	906,748	1,029,085	970,125
Net investment income	99,473	82,094	89,305	118,587	83,543	111,388	81,717	112,138
Net foreign exchange (losses) gains	(5,728)	(2,846)	(7,195)	9,309	17,426	(8,275)	23,270	(1,126)
Equity in earnings (losses) of other ventures	4,564	4,661	9,041	6,812	5,457	5,877	(1,868)	5,874
Other (loss) income	(4,436)	3,171	(1,201)	922	1,476	1,016	4,374	(160)
Net realized and unrealized (losses) gains on investments	(110,707)	170,013	448,390	191,248	224,208	34,394	258,745	18,454
Total revenues	896,264	807,121	1,548,436	1,238,380	1,332,293	1,051,148	1,395,323	1,105,305
Expenses								
Net claims and claim expenses incurred	570,954	227,035	510,272	453,373	942,030	654,520	901,353	762,093
Acquisition costs	210,604	123,951	233,610	227,482	215,180	202,181	238,283	208,618
Operational expenses	67,461	44,933	49,077	59,814	49,045	53,415	41,104	64,571
Corporate expenses	15,991	38,789	11,898	23,847	48,050	13,844	21,031	17,642
Interest expense	14,927	11,754	11,842	15,534	11,843	15,580	11,841	15,496
Total expenses	879,937	446,462	816,699	780,050	1,266,148	939,540	1,213,612	1,068,420
Income before taxes	16,327	360,659	731,737	458,330	66,145	111,608	181,711	36,885
Income tax benefit (expense)	8,846	(7,531)	(29,875)	(9,475)	8,244	(3,664)	9,923	3,455
Net income	25,173	353,128	701,862	448,855	74,389	107,944	191,634	40,340
Net (income) loss attributable to redeemable noncontrolling interests	(98,091)	(70,222)	(118,728)	(71,812)	(19,301)	(62,057)	5,467	2,622
Net (loss) income attributable to RenaissanceRe	(72,918)	282,906	583,134	377,043	55,088	45,887	197,101	42,962
Dividends on preference shares	(9,056)	(9,189)	(7,289)	(9,189)	(7,289)	(9,189)	(7,289)	(9,189)
Net (loss) income (attributable) available to RenaissanceRe common shareholders	\$ (81,974)	\$ 273,717	\$ 575,845	\$ 367,854	\$ 47,799	\$ 36,698	\$ 189,812	\$ 33,773
Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share – basic	\$ (1.89)	\$ 6.43	\$ 12.64	\$ 8.36	\$ 0.94	\$ 0.83	\$ 3.75	\$ 0.77
Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share – diluted	\$ (1.89)	\$ 6.43	\$ 12.63	\$ 8.35	\$ 0.94	\$ 0.83	\$ 3.74	\$ 0.77
Average shares outstanding – basic	43,441	42,065	44,939	43,483	50,009	43,462	50,022	43,467
Average shares outstanding – diluted	43,441	42,091	45,003	43,521	50,094	43,537	50,111	43,552

NOTE 23. CONDENSED CONSOLIDATING FINANCIAL INFORMATION PROVIDED IN CONNECTION WITH OUTSTANDING DEBT OF SUBSIDIARIES

The following tables are provided in connection with outstanding debt of the Company's subsidiaries and present condensed consolidating balance sheets at December 31, 2020 and 2019, condensed consolidating statements of operations, condensed consolidating statements of comprehensive income (loss) and condensed consolidating statements of cash flows for the years ended December 31, 2020, 2019 and 2018, respectively. RenaissanceRe Finance is a 100% owned subsidiary of RenaissanceRe and has outstanding debt securities. For additional information related to the terms of the Company's outstanding debt securities, see "Note 9. Debt and Credit Facilities."

Condensed Consolidating Balance Sheet at December 31, 2020	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Assets					
Total investments	\$ 140,182	\$ 48,981	\$ 20,369,013	\$ —	\$ 20,558,176
Cash and cash equivalents	29,830	16,205	1,690,778	—	1,736,813
Investments in subsidiaries	6,757,962	1,521,829	700,249	(8,980,040)	—
Due from subsidiaries and affiliates	2,435	(102,618)	100,183	—	—
Premiums receivable	—	—	2,894,631	—	2,894,631
Prepaid reinsurance premiums	—	—	823,582	—	823,582
Reinsurance recoverable	—	—	2,926,010	—	2,926,010
Accrued investment income	34	35	66,674	—	66,743
Deferred acquisition costs and value of business acquired	—	—	633,521	—	633,521
Receivable for investments sold	18	—	568,275	—	568,293
Other assets	932,153	13,315	510,179	(1,092,477)	363,170
Goodwill and other intangible assets	112,110	—	137,531	—	249,641
Total assets	\$ 7,974,724	\$ 1,497,747	\$ 31,420,626	\$ (10,072,517)	\$ 30,820,580
Liabilities, Noncontrolling Interests and Shareholders' Equity					
Liabilities					
Reserve for claims and claim expenses	\$ —	\$ —	\$ 10,381,138	\$ —	\$ 10,381,138
Unearned premiums	—	—	2,763,599	—	2,763,599
Debt	392,391	846,277	986,609	(1,089,012)	1,136,265
Reinsurance balances payable	—	—	3,488,352	—	3,488,352
Payable for investments purchased	—	—	1,132,538	—	1,132,538
Other liabilities	22,085	2,020	3,868,855	(2,922,839)	970,121
Total liabilities	414,476	848,297	22,621,091	(4,011,851)	19,872,013
Redeemable noncontrolling interests	—	—	3,388,319	—	3,388,319
Shareholders' Equity					
Total shareholders' equity	7,560,248	649,450	5,411,216	(6,060,666)	7,560,248
Total liabilities, noncontrolling interests and shareholders' equity	\$ 7,974,724	\$ 1,497,747	\$ 31,420,626	\$ (10,072,517)	\$ 30,820,580

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

(2) Includes Parent Guarantor, Subsidiary Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Balance Sheet at December 31, 2019	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Assets					
Total investments	\$ 190,451	\$ 288,137	\$ 16,890,201	\$ —	\$ 17,368,789
Cash and cash equivalents	26,460	8,731	1,343,877	—	1,379,068
Investments in subsidiaries	5,204,260	1,426,838	48,247	(6,679,345)	—
Due from subsidiaries and affiliates	10,725	—	101,579	(112,304)	—
Premiums receivable	—	—	2,599,896	—	2,599,896
Prepaid reinsurance premiums	—	—	767,781	—	767,781
Reinsurance recoverable	—	—	2,791,297	—	2,791,297
Accrued investment income	—	1,171	71,290	—	72,461
Deferred acquisition costs	—	—	663,991	—	663,991
Receivable for investments sold	173	—	78,196	—	78,369
Other assets	847,406	12,211	312,556	(825,957)	346,216
Goodwill and other intangible assets	116,212	—	146,014	—	262,226
Total assets	\$ 6,395,687	\$ 1,737,088	\$ 25,814,925	\$ (7,617,606)	\$ 26,330,094
Liabilities, Redeemable Noncontrolling Interest and Shareholders' Equity					
Liabilities					
Reserve for claims and claim expenses	\$ —	\$ —	\$ 9,384,349	\$ —	\$ 9,384,349
Unearned premiums	—	—	2,530,975	—	2,530,975
Debt	391,475	970,255	148,349	(125,974)	1,384,105
Amounts due to subsidiaries and affiliates	6,708	102,493	51	(109,252)	—
Reinsurance balances payable	—	—	2,830,691	—	2,830,691
Payable for investments purchased	—	—	225,275	—	225,275
Other liabilities	26,137	14,162	899,960	(8,235)	932,024
Total liabilities	424,320	1,086,910	16,019,650	(243,461)	17,287,419
Redeemable noncontrolling interests	—	—	3,071,308	—	3,071,308
Shareholders' Equity					
Total shareholders' equity	5,971,367	650,178	6,723,967	(7,374,145)	5,971,367
Total liabilities, redeemable noncontrolling interest and shareholders' equity	\$ 6,395,687	\$ 1,737,088	\$ 25,814,925	\$ (7,617,606)	\$ 26,330,094

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

(2) Includes Parent Guarantor, Subsidiary Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Operations for the year ended December 31, 2020	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Revenues					
Net premiums earned	\$ —	\$ —	\$ 3,952,462	\$ —	\$ 3,952,462
Net investment income	40,502	1,010	355,466	(42,940)	354,038
Net foreign exchange gains (losses)	10,729	—	17,255	(211)	27,773
Equity in earnings of other ventures	—	3,103	14,091	—	17,194
Other income	—	—	29,430	(29,217)	213
Net realized and unrealized (losses) gains on investments	(4,556)	109	825,083	—	820,636
Total revenues	46,675	4,222	5,193,787	(72,368)	5,172,316
Expenses					
Net claims and claim expenses incurred	—	—	2,924,609	—	2,924,609
Acquisition expenses	—	—	897,677	—	897,677
Operational expenses	8,016	32,945	194,943	(29,217)	206,687
Corporate expenses	47,223	15	49,732	—	96,970
Interest expense	15,583	30,864	46,900	(42,894)	50,453
Total expenses	70,822	63,824	4,113,861	(72,111)	4,176,396
(Loss) income before equity in net income (loss) of subsidiaries and taxes	(24,147)	(59,602)	1,079,926	(257)	995,920
Equity in net income (loss) of subsidiaries	786,552	47,295	(102,884)	(730,963)	—
Income (loss) before taxes	762,405	(12,307)	977,042	(731,220)	995,920
Income tax benefit (expense)	—	12,015	(14,877)	—	(2,862)
Net income (loss)	762,405	(292)	962,165	(731,220)	993,058
Net income attributable to redeemable noncontrolling interests	—	—	(230,653)	—	(230,653)
Net income (loss) attributable to RenaissanceRe	762,405	(292)	731,512	(731,220)	762,405
Dividends on preference shares	(30,923)	—	—	—	(30,923)
Net income (loss) available (attributable) to RenaissanceRe common shareholders	\$ 731,482	\$ (292)	\$ 731,512	\$ (731,220)	\$ 731,482

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

(2) Includes Parent Guarantor, Subsidiary Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Comprehensive Income (Loss) for the twelve months ended December 31, 2020	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Comprehensive income (loss)					
Net income (loss)	\$ 762,405	\$ (292)	\$ 962,165	\$ (731,220)	\$ 993,058
Change in net unrealized gains on investments, net of tax	606	(435)	—	435	606
Foreign currency translation adjustments, net of tax	(11,309)	—	(22,072)	22,072	(11,309)
Comprehensive income	751,702	(727)	940,093	(708,713)	982,355
Net income attributable to redeemable noncontrolling interests	—	—	(230,653)	—	(230,653)
Comprehensive income attributable to redeemable noncontrolling interests	—	—	(230,653)	—	(230,653)
Comprehensive income available to RenaissanceRe	\$ 751,702	\$ (727)	\$ 709,440	\$ (708,713)	\$ 751,702

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

(2) Includes Parent Guarantor, Subsidiary Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Operations for the year ended December 31, 2019	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries)				
	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	(1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Revenues					
Net premiums earned	\$ —	\$ —	\$ 3,338,403	\$ —	\$ 3,338,403
Net investment income	39,629	7,547	422,194	(45,163)	424,207
Net foreign exchange gains (losses)	7,342	—	(10,280)	—	(2,938)
Equity in earnings of other ventures	—	3,886	19,338	—	23,224
Other income	—	—	4,949	—	4,949
Net realized and unrealized gains on investments	12,393	151	401,565	—	414,109
Total revenues	59,364	11,584	4,176,169	(45,163)	4,201,954
Expenses					
Net claims and claim expenses incurred	—	—	2,097,021	—	2,097,021
Acquisition expenses	—	—	762,232	—	762,232
Operational expenses	7,506	38,487	208,037	(31,297)	222,733
Corporate expenses	58,393	16	43,413	(7,700)	94,122
Interest expense	18,086	37,993	2,285	—	58,364
Total expenses	83,985	76,496	3,112,988	(38,997)	3,234,472
(Loss) income before equity in net income of subsidiaries and taxes	(24,621)	(64,912)	1,063,181	(6,166)	967,482
Equity in net income of subsidiaries	773,419	99,148	5,611	(878,178)	—
Income before taxes	748,798	34,236	1,068,792	(884,344)	967,482
Income tax benefit (expense)	—	6,510	(23,725)	—	(17,215)
Net income	748,798	40,746	1,045,067	(884,344)	950,267
Net income attributable to redeemable noncontrolling interests	—	—	(201,469)	—	(201,469)
Net income attributable to RenaissanceRe	748,798	40,746	843,598	(884,344)	748,798
Dividends on preference shares	(36,756)	—	—	—	(36,756)
Net income available to RenaissanceRe common shareholders	\$ 712,042	\$ 40,746	\$ 843,598	\$ (884,344)	\$ 712,042

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

(2) Includes Parent Guarantor, Subsidiary Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Comprehensive Income for the year ended December 31, 2019	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries)				
	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	(1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Comprehensive income					
Net income	\$ 748,798	\$ 40,746	\$ 1,045,067	\$ (884,344)	\$ 950,267
Change in net unrealized gains on investments, net of tax	2,173	764	528	(1,292)	2,173
Comprehensive income	748,292	41,510	1,045,595	(885,636)	949,761
Net income attributable to redeemable noncontrolling interests	—	—	(201,469)	—	(201,469)
Comprehensive income attributable to redeemable noncontrolling interests	—	—	(201,469)	—	(201,469)
Comprehensive income available to RenaissanceRe	\$ 748,292	\$ 41,510	\$ 844,126	\$ (885,636)	\$ 748,292

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

(2) Includes Parent Guarantor, Subsidiary Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Operations for the year ended December 31, 2018	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Revenues					
Net premiums earned	\$ —	\$ —	\$ 1,976,129	\$ —	\$ 1,976,129
Net investment income	24,791	6,219	269,291	(32,529)	269,965
Net foreign exchange losses	(3)	—	(12,425)	—	(12,428)
Equity in earnings of other ventures	—	3,065	15,409	—	18,474
Other income	—	—	5,969	—	5,969
Net realized and unrealized gains (losses) on investments	633	(329)	(179,112)	—	(183,168)
Total revenues	25,421	8,955	2,075,261	(32,529)	2,074,941
Expenses					
Net claims and claim expenses incurred	—	—	1,120,018	—	1,120,018
Acquisition expenses	—	—	432,989	—	432,989
Operational expenses	7,679	34,534	164,605	(28,661)	178,267
Corporate expenses	25,190	7	3,103	5,683	33,983
Interest expense	5,683	37,019	4,367	—	47,069
Total expenses	38,552	71,560	1,725,082	(22,978)	1,812,326
(Loss) income before equity in net income of subsidiaries and taxes	(13,131)	(62,605)	350,179	(9,551)	262,615
Equity in net income of subsidiaries	240,495	9,091	—	(255,217)	—
Income (loss) before taxes	227,364	(53,514)	350,179	(264,768)	262,615
Income tax benefit	—	6,119	(399)	—	6,302
Net income (loss)	227,364	(47,395)	349,780	(264,768)	268,917
Net income attributable to redeemable noncontrolling interests	—	—	(41,553)	—	(41,553)
Net income (loss) attributable to RenaissanceRe	227,364	(47,395)	308,227	(264,768)	227,364
Dividends on preference shares	(30,088)	—	—	—	(30,088)
Net income (loss) available (attributable) to RenaissanceRe common shareholders	\$ 197,276	\$ (47,395)	\$ 308,227	\$ (264,768)	\$ 197,276

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

(2) Includes Parent Guarantor, Subsidiary Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Comprehensive Income (Loss) for the year ended December 31, 2018	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Comprehensive income (loss)					
Net income (loss)	\$ 227,364	\$ (47,395)	\$ 349,780	\$ (264,768)	\$ 268,917
Change in net unrealized gains on investments, net of tax	(1,657)	(162)	—	322	(1,657)
Comprehensive income (loss)	225,707	(47,557)	349,780	(264,446)	267,260
Net income attributable to redeemable noncontrolling interests	—	—	(41,553)	—	(41,553)
Comprehensive income attributable to redeemable noncontrolling interests	—	—	(41,553)	—	(41,553)
Comprehensive income (loss) attributable to RenaissanceRe	\$ 225,707	\$ (47,557)	\$ 308,227	\$ (264,446)	\$ 225,707

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

(2) Includes Parent Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Cash Flows for the year ended December 31, 2020	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries (1))	RenaissanceRe Consolidated
Cash flows (used in) provided by operating activities				
Net cash (used in) provided by operating activities	\$ 18,191	\$ (59,160)	\$ 2,033,704	\$ 1,992,735
Cash flows provided by (used in) investing activities				
Proceeds from sales and maturities of fixed maturity investments trading	370,905	52,954	14,763,093	15,186,952
Purchases of fixed maturity investments trading	(384,415)	(52,948)	(16,399,175)	(16,836,538)
Net purchases of equity investments trading	—	—	829	829
Net (purchases) sales of short term investments	64,209	238,376	(884,058)	(581,473)
Net purchases of other investments	—	—	(216,760)	(216,760)
Net purchases of investments in other ventures	—	—	(3,698)	(3,698)
Return of investment from investment in other ventures	—	—	9,255	9,255
Dividends and return of capital from subsidiaries	827,626	124,105	(951,731)	—
Contributions to subsidiaries	(1,623,708)	(172,000)	1,795,708	—
Due (to) from subsidiary	(65,438)	126,147	(60,709)	—
Net proceeds from sale of discontinued operations	—	—	136,744	136,744
Net cash provided by (used in) investing activities	(810,821)	316,634	(1,810,502)	(2,304,689)
Cash flows provided by financing activities				
Dividends paid – RenaissanceRe common shares	(68,490)	—	—	(68,490)
Dividends paid – preference shares	(30,923)	—	—	(30,923)
RenaissanceRe common share repurchases	(62,621)	—	—	(62,621)
RenaissanceRe common share issuance	1,095,507	—	—	1,095,507
Redemption of preference shares	(125,000)	—	—	(125,000)
Repayment of debt	—	(250,000)	—	(250,000)
Net third-party redeemable noncontrolling interest share transactions	—	—	119,071	119,071
Taxes paid on withholding shares	(12,330)	—	—	(12,330)
Net cash provided by financing activities	796,143	(250,000)	119,071	665,214
Effect of exchange rate changes on foreign currency cash	(143)	—	4,628	4,485
Net increase in cash and cash equivalents	3,370	7,474	346,901	357,745
Cash and cash equivalents, beginning of year	26,460	8,731	1,343,877	1,379,068
Cash and cash equivalents, end of year	\$ 29,830	\$ 16,205	\$ 1,690,778	\$ 1,736,813

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

Condensed Consolidating Statement of Cash Flows for the year ended December 31, 2019	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	RenaissanceRe Consolidated
Cash flows (used in) provided by operating activities				
Net cash (used in) provided by operating activities	\$ (2,861)	\$ 366,934	\$ 1,773,122	\$ 2,137,195
Cash flows used in investing activities				
Proceeds from sales and maturities of fixed maturity investments trading	306,579	60,737	16,946,624	17,313,940
Purchases of fixed maturity investments trading	(66,740)	(33,577)	(17,819,026)	(17,919,343)
Net purchases of equity investments trading	—	—	(7,841)	(7,841)
Net purchases of short term investments	(116,499)	(283,717)	(1,500,525)	(1,900,741)
Net purchases of other investments	—	—	(202,878)	(202,878)
Net purchases of investments in other ventures	—	—	(2,717)	(2,717)
Return of investment from investment in other ventures	—	—	11,250	11,250
Net purchases of other assets	—	—	(4,108)	(4,108)
Dividends and return of capital from subsidiaries	1,400,944	13,500	(1,414,444)	—
Contributions to subsidiaries	(1,165,607)	(125,000)	1,290,607	—
Due (to) from subsidiaries	(625,924)	250	625,674	—
Net cash used in investing activities	(267,247)	(367,807)	(2,353,590)	(2,988,644)
Cash flows provided by financing activities				
Dividends paid – RenaissanceRe common shares	(59,368)	—	—	(59,368)
Dividends paid – preference shares	(36,756)	—	—	(36,756)
Issuance of debt, net of expenses	396,411	—	—	396,411
Net third-party redeemable noncontrolling interest share transactions	—	—	827,083	827,083
Taxes paid on withholding shares	(7,253)	—	—	(7,253)
Net cash provided by financing activities	293,034	—	827,083	1,120,117
Effect of exchange rate changes on foreign currency cash	—	—	2,478	2,478
Net increase (decrease) in cash and cash equivalents	22,926	(873)	249,093	271,146
Cash and cash equivalents, beginning of year	3,534	9,604	1,094,784	1,107,922
Cash and cash equivalents, end of year	\$ 26,460	\$ 8,731	\$ 1,343,877	\$ 1,379,068

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

Condensed Consolidating Statement of Cash Flows for the year ended December 31, 2018	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	RenaissanceRe Consolidated
Cash flows provided by operating activities				
Net cash provided by operating activities	\$ 17,187	\$ 62,645	\$ 1,141,869	\$ 1,221,701
Cash flows used in investing activities				
Proceeds from sales and maturities of fixed maturity investments trading	384,818	56,518	11,144,240	11,585,576
Purchases of fixed maturity investments trading	(520,935)	(55,932)	(11,913,105)	(12,489,972)
Net sales of equity investments trading	—	—	14,156	14,156
Net sales (purchases) of short term investments	48,600	455	(1,485,444)	(1,436,389)
Net purchases of other investments	—	—	(199,475)	(199,475)
Net purchases of investments in other ventures	—	—	(21,473)	(21,473)
Net sales of other assets	—	—	2,500	2,500
Return of investment from investment in other ventures	—	—	8,464	8,464
Dividends and return of capital from subsidiaries	672,098	—	(672,098)	—
Contributions to subsidiaries	(785,785)	(65,000)	850,785	—
Due (to) from to subsidiary	(227,762)	9,449	218,313	—
Net cash used in investing activities	(428,966)	(54,510)	(2,053,137)	(2,536,613)
Cash flows provided by financing activities				
Dividends paid – RenaissanceRe common shares	(52,841)	—	—	(52,841)
Dividends paid – preference shares	(30,088)	—	—	(30,088)
RenaissanceRe common share issuance	250,000	—	—	250,000
Issuance of preference shares, net of expenses	241,448	—	—	241,448
Net third-party redeemable noncontrolling interest share transactions	—	—	665,683	665,683
Taxes paid on withholding shares	(7,862)	—	—	(7,862)
Net cash provided by financing activities	400,657	—	665,683	1,066,340
Effect of exchange rate changes on foreign currency cash	—	—	(5,098)	(5,098)
Net (decrease) increase in cash and cash equivalents	(11,122)	8,135	(250,683)	(253,670)
Cash and cash equivalents, beginning of year	14,656	1,469	1,345,467	1,361,592
Cash and cash equivalents, end of year	\$ 3,534	\$ 9,604	\$ 1,094,784	\$ 1,107,922

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

NOTE 24. SUBSEQUENT EVENTS

During the first quarter of 2021, the Company resumed repurchases of its common shares and subsequent to December 31, 2020 through the period ended February 4, 2021, the Company repurchased 250,169 common shares in open market transactions at an aggregate cost of \$38.7 million and an average share price of \$154.75.

Effective January 1, 2021, DaVinciRe completed an equity capital raise of \$250.0 million, comprised of \$150.9 million from third-party investors and \$99.1 million from RenaissanceRe. In addition, RenaissanceRe sold an aggregate of \$40.0 million of its shares in DaVinciRe to third-party investors and purchased an aggregate of \$156.7 million of shares from third-party investors. The Company's noncontrolling economic ownership in DaVinciRe subsequent to these transactions was 28.7%, effective January 1, 2021.

Effective January 1, 2021, Upsilon RFO issued \$470.3 million of non-voting preference shares to investors, including \$32.3 million to the Company. Of the total amount, \$620.3 million was received by the Company prior to December 31, 2020, with \$150.0 million of that amount returned in January 2021. At December 31, 2020, \$550.0 million, representing the amount received from investors other than the Company prior to December 31, 2020, is included in other liabilities on the Company's consolidated balance sheet, and also included in other operating cash flows on the Company's consolidated statements of cash flows for the year ended December 31, 2020. Effective January 1, 2021, the Company's participation in the risks assumed by Upsilon RFO was 12.4%.

RENAISSANCERE HOLDINGS LTD. AND SUBSIDIARIES
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Schedules other than those listed above are omitted for the reason that they are not applicable.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of RenaissanceRe Holdings Ltd.

We have audited the consolidated financial statements of RenaissanceRe Holdings Ltd. and subsidiaries (the Company) as of December 31, 2020 and 2019, for each of the three years in the period ended December 31, 2020, and have issued our report thereon dated February 5, 2021 included elsewhere in this Form 10-K. Our audits of the consolidated financial statements included the financial statement schedules listed in Item 15 of this Form 10-K (the schedules). These schedules are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's schedules, based on our audits.

In our opinion, the schedules present fairly, in all material respects, the information set forth therein when considered in conjunction with the consolidated financial statements.

/s/ Ernst & Young Ltd.

Hamilton, Bermuda
February 5, 2021

SCHEDULE I
RENAISSANCERE HOLDINGS LTD. AND SUBSIDIARIES
SUMMARY OF INVESTMENTS
OTHER THAN INVESTMENTS IN RELATED PARTIES
(THOUSANDS OF UNITED STATES DOLLARS)

	December 31, 2020		
	Amortized Cost or Cost	Fair Value	Amount at Which Shown in the Balance Sheet
<u>Type of investment:</u>			
Fixed maturity investments			
U.S. treasuries	\$ 4,867,681	\$ 4,960,409	\$ 4,960,409
Agencies	365,387	368,032	368,032
Non-U.S. government	485,972	491,531	491,531
Non-U.S. government-backed corporate	333,996	338,014	338,014
Corporate	4,069,396	4,261,025	4,261,025
Agency mortgage-backed	1,095,525	1,113,792	1,113,792
Non-agency mortgage-backed	286,942	291,444	291,444
Commercial mortgage-backed	762,899	791,272	791,272
Asset-backed	887,237	890,984	890,984
Total fixed maturity investments	<u>\$ 13,155,035</u>	13,506,503	13,506,503
Short term investments		4,993,735	4,993,735
Equity investments		702,617	702,617
Other investments		1,256,948	1,256,948
Investments in other ventures, under equity method		98,373	98,373
Total investments		<u>\$ 20,558,176</u>	<u>\$ 20,558,176</u>

SCHEDULE II
RENAISSANCERE HOLDINGS LTD.
CONDENSED FINANCIAL INFORMATION OF REGISTRANT
RENAISSANCERE HOLDINGS LTD.
BALANCE SHEETS
AT DECEMBER 31, 2020 AND 2019
(PARENT COMPANY)
(THOUSANDS OF UNITED STATES DOLLARS)

	At December 31,	
	2020	2019
Assets		
Fixed maturity investments trading, at fair value - amortized cost \$14,840 at December 31, 2020 (2019 - \$998)	\$ 14,790	\$ 1,005
Short term investments, at fair value	125,392	189,446
Cash and cash equivalents	29,830	26,460
Investments in subsidiaries	6,757,962	5,204,260
Due from subsidiaries	2,435	10,725
Accrued investment income	34	—
Receivable for investments sold	18	173
Other assets	932,153	847,406
Goodwill and other intangible assets	112,110	116,212
Total assets	\$ 7,974,724	\$ 6,395,687
Liabilities and Shareholders' Equity		
Liabilities		
Notes and bank loans payable	\$ 392,391	\$ 391,475
Due to subsidiaries	—	6,708
Other liabilities	22,085	26,137
Total liabilities	414,476	424,320
Shareholders' Equity		
Preference shares: \$1.00 par value – 11,010,000 shares issued and outstanding at December 31, 2020 (2019 – 16,010,000)	525,000	650,000
Common shares: \$1.00 par value – 50,810,618 shares issued and outstanding at December 31, 2020 (2019 – 44,148,116)	50,811	44,148
Additional paid-in capital	1,623,206	568,277
Accumulated other comprehensive loss	(12,642)	(1,939)
Retained earnings	5,373,873	4,710,881
Total shareholders' equity	7,560,248	5,971,367
Total liabilities and shareholders' equity	\$ 7,974,724	\$ 6,395,687

SCHEDULE II
RENAISSANCERE HOLDINGS LTD.
CONDENSED FINANCIAL INFORMATION OF REGISTRANT – CONTINUED

RENAISSANCERE HOLDINGS LTD.
STATEMENTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019 AND 2018
(PARENT COMPANY)
(THOUSANDS OF UNITED STATES DOLLARS)

	Year ended December 31,		
	2020	2019	2018
Revenues			
Net investment income	\$ 40,502	\$ 39,629	\$ 24,791
Net foreign exchange gains (losses)	10,729	7,342	(3)
Net realized and unrealized (losses) gains on investments	(4,556)	12,393	633
Total revenues	46,675	59,364	25,421
Expenses			
Interest expense	15,583	18,086	5,683
Operational expenses	8,016	7,506	7,679
Corporate expenses	47,223	58,393	25,190
Total expenses	70,822	83,985	38,552
Loss before equity in net income of subsidiaries	(24,147)	(24,621)	(13,131)
Equity in net income of subsidiaries	786,552	773,419	240,495
Net income	762,405	748,798	227,364
Dividends on preference shares	(30,923)	(36,756)	(30,088)
Net income available to RenaissanceRe common shareholders	\$ 731,482	\$ 712,042	\$ 197,276

RENAISSANCERE HOLDINGS LTD.
STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019 AND 2018
(PARENT COMPANY)
(THOUSANDS OF UNITED STATES DOLLARS)

	Year ended December 31,		
	2020	2019	2018
Comprehensive income			
Net income	\$ 762,405	\$ 748,798	\$ 227,364
Change in net unrealized gains on investments, net of tax	606	2,173	(1,657)
Foreign currency translation adjustments, net of tax	(11,309)	(2,679)	—
Comprehensive income attributable to RenaissanceRe	\$ 751,702	\$ 748,292	\$ 225,707

SCHEDULE II
RENAISSANCERE HOLDINGS LTD.
CONDENSED FINANCIAL INFORMATION OF REGISTRANT – CONTINUED

RENAISSANCERE HOLDINGS LTD.
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019 AND 2018
(PARENT COMPANY)
(THOUSANDS OF UNITED STATES DOLLARS)

	Year ended December 31,		
	2020	2019	2018
Cash flows provided by (used in) operating activities:			
Net income	\$ 762,405	\$ 748,798	\$ 227,364
Less: equity in net income of subsidiaries	(786,552)	(773,419)	(240,495)
	(24,147)	(24,621)	(13,131)
Adjustments to reconcile net income to net cash used in operating activities			
Net realized and unrealized losses (gains) on investments	4,556	(12,393)	(633)
Other	37,782	34,153	30,951
Net cash provided by (used in) operating activities	18,191	(2,861)	17,187
Cash flows used in investing activities:			
Proceeds from maturities and sales of fixed maturity investments trading	370,905	306,579	384,818
Purchases of fixed maturity investments trading	(384,415)	(66,740)	(520,935)
Net sales (purchases) of short term investments	64,209	(116,499)	48,600
Dividends and return of capital from subsidiaries	827,626	1,400,944	672,098
Contributions to subsidiaries	(1,623,708)	(1,165,607)	(785,785)
Due (to) from subsidiary	(65,438)	(625,924)	(227,762)
Net cash used in investing activities	(810,821)	(267,247)	(428,966)
Cash flows provided by financing activities:			
Dividends paid – RenaissanceRe common shares	(68,490)	(59,368)	(52,841)
Dividends paid – preference shares	(30,923)	(36,756)	(30,088)
Issuance of debt, net of expenses	—	396,411	—
RenaissanceRe common share repurchases	(62,621)	—	—
RenaissanceRe common share issuance	1,095,507	—	250,000
Redemption of preference shares	(125,000)	—	—
Issuance of preference shares, net of expenses	—	—	241,448
Taxes paid on withholding shares	(12,330)	(7,253)	(7,862)
Net cash provided by financing activities	796,143	293,034	400,657
Effect of exchange rate changes on foreign currency cash	(143)	—	—
Net increase (decrease) in cash and cash equivalents	3,370	22,926	(11,122)
Cash and cash equivalents, beginning of year	26,460	3,534	14,656
Cash and cash equivalents, end of year	\$ 29,830	\$ 26,460	\$ 3,534

SCHEDULE III
RENAISSANCERE HOLDINGS LTD. AND SUBSIDIARIES
SUPPLEMENTARY INSURANCE INFORMATION
(THOUSANDS OF UNITED STATES DOLLARS)

	December 31, 2020			Year ended December 31, 2020					
	Deferred Policy Acquisition Costs	Future Policy Benefits, Losses, Claims and Loss Expenses	Unearned Premiums	Premium Revenue	Net Investment Income	Benefits, Claims, Losses and Settlement Expenses	Amortization of Deferred Policy Acquisition Costs	Other Operating Expenses	Net Written Premiums
Property	\$ 118,327	\$ 4,371,745	\$ 659,236	\$ 1,936,215	\$ —	\$ 1,435,735	\$ 353,700	\$ 135,547	\$ 2,037,200
Casualty and Specialty	515,194	6,008,685	2,104,363	2,016,247	—	1,488,662	543,977	71,140	2,059,133
Other	—	708	—	—	354,038	212	—	—	—
Total	\$ 633,521	\$ 10,381,138	\$ 2,763,599	\$ 3,952,462	\$ 354,038	\$ 2,924,609	\$ 897,677	\$ 206,687	\$ 4,096,333

	December 31, 2019			Year ended December 31, 2019					
	Deferred Policy Acquisition Costs	Future Policy Benefits, Losses, Claims and Loss Expenses	Unearned Premiums	Premium Revenue	Net Investment Income	Benefits, Claims, Losses and Settlement Expenses	Amortization of Deferred Policy Acquisition Costs	Other Operating Expenses	Net Written Premiums
Property	\$ 79,795	\$ 4,073,850	\$ 539,183	\$ 1,627,494	\$ —	\$ 965,424	\$ 313,761	\$ 139,015	\$ 1,654,259
Casualty and Specialty	584,196	5,310,059	1,991,792	1,710,909	—	1,131,637	448,678	84,546	1,727,234
Other	—	440	—	—	424,207	(40)	(207)	(828)	—
Total	\$ 663,991	\$ 9,384,349	\$ 2,530,975	\$ 3,338,403	\$ 424,207	\$ 2,097,021	\$ 762,232	\$ 222,733	\$ 3,381,493

	December 31, 2018			Year ended December 31, 2018					
	Deferred Policy Acquisition Costs	Future Policy Benefits, Losses, Claims and Loss Expenses	Unearned Premiums	Premium Revenue	Net Investment Income	Benefits, Claims, Losses and Settlement Expenses	Amortization of Deferred Policy Acquisition Costs	Other Operating Expenses	Net Written Premiums
Property	\$ 66,656	\$ 3,086,254	\$ 379,943	\$ 1,050,831	\$ —	\$ 497,895	\$ 177,912	\$ 112,954	\$ 1,055,188
Casualty and Specialty	410,005	2,985,393	1,336,078	925,298	—	622,320	255,079	64,883	1,076,714
Other	—	4,624	—	—	269,965	(197)	(2)	430	—
Total	\$ 476,661	\$ 6,076,271	\$ 1,716,021	\$ 1,976,129	\$ 269,965	\$ 1,120,018	\$ 432,989	\$ 178,267	\$ 2,131,902

SCHEDULE IV
RENAISSANCERE HOLDINGS LTD. AND SUBSIDIARIES
SUPPLEMENTAL SCHEDULE OF REINSURANCE PREMIUMS
(THOUSANDS OF UNITED STATES DOLLARS)

	Gross Amounts	Ceded to Other Companies	Assumed From Other Companies	Net Amount	Percentage of Amount Assumed to Net
Year ended December 31, 2020					
Property and liability premiums earned	\$ 536,595	\$ 1,662,815	\$ 5,078,682	\$ 3,952,462	128 %
Year ended December 31, 2019					
Property and liability premiums earned	\$ 404,525	\$ 1,414,383	\$ 4,348,261	\$ 3,338,403	130 %
Year ended December 31, 2018					
Property and liability premiums earned	\$ 292,219	\$ 1,095,886	\$ 2,779,796	\$ 1,976,129	141 %

SCHEDULE VI
RENAISSANCERE HOLDINGS LTD. AND SUBSIDIARIES
SUPPLEMENTARY INSURANCE INFORMATION CONCERNING
PROPERTY-CASUALTY INSURANCE OPERATIONS
(THOUSANDS OF UNITED STATES DOLLARS)

Affiliation with Registrant	Deferred Policy Acquisition Costs	Reserves for Unpaid Claims and Claim Adjustment Expenses	Discount, if any, Deducted	Unearned Premiums	Earned Premiums	Net Investment Income
Consolidated Subsidiaries						
Year ended December 31, 2020	\$ 633,521	\$ 10,381,138	\$ —	\$ 2,763,599	\$ 3,952,462	\$ 354,038
Year ended December 31, 2019	\$ 663,991	\$ 9,384,349	\$ —	\$ 2,530,975	\$ 3,338,403	\$ 424,207
Year ended December 31, 2018	\$ 476,661	\$ 6,076,271	\$ —	\$ 1,716,021	\$ 1,976,129	\$ 269,965

Affiliation with Registrant	Claims and Claim Adjustment Expenses Incurred Related to		Amortization of Deferred Policy Acquisition Costs	Paid Claims and Claim Adjustment Expenses	Net Premiums Written
Consolidated Subsidiaries	Current Year	Prior Year			
Year ended December 31, 2020	\$ 3,108,421	\$ (183,812)	\$ 897,677	\$ 2,004,628	\$ 4,096,333
Year ended December 31, 2019	\$ 2,123,876	\$ (26,855)	\$ 762,232	\$ 1,098,054	\$ 3,381,493
Year ended December 31, 2018	\$ 1,390,767	\$ (270,749)	\$ 432,989	\$ 894,769	\$ 2,131,902

**DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

The following description sets forth certain material terms and provisions of our securities that are registered under Section 12 of the Securities Exchange Act of 1934, as amended. This description also summarizes certain provisions of our Memorandum of Association (the "Memorandum") and Amended and Restated Bye-Laws (the "Bye-Laws"), and the applicable Certificate of Designation, Preferences and Rights for our Series E Preference Shares and Series F Preference Shares. Because this summary is not complete, you should refer to our Memorandum and Bye-Laws and the applicable certificate of designation for complete information regarding the provisions of these governing documents, including the definitions of some of the terms used below. Copies of these governing documents are incorporated by reference as exhibits to the Annual Report on Form 10-K of which this Exhibit 4.6 is a part. Whenever we refer to particular sections or defined terms of the Memorandum, the Bye-Laws or the certificates of designation, such sections or defined terms are incorporated herein by reference and the statement in connection with such reference is made is qualified in its entirety by such reference. References to "we," "us" or "our" mean RenaissanceRe Holdings Ltd., excluding, unless otherwise expressly stated or the context requires, our subsidiaries.

COMMON SHARES

Our Common Shares are listed on the New York Stock Exchange under the symbol "RNR." The Common Shares currently issued and outstanding are fully paid and nonassessable within the meaning of applicable Bermuda law. We have authorized the issuance of 225,000,000 Common Shares. There are no provisions of Bermuda law or our Memorandum and Bye-Laws which impose any limitation on the rights of shareholders to hold or vote Common Shares by reason of their not being residents of Bermuda.

Holders of Common Shares have no pre-emptive, redemption, conversion or sinking fund rights. Subject to the voting restrictions set forth below, holders of Common Shares are entitled to one vote per share on all matters submitted to a vote of holders of Common Shares and do not have any cumulative voting rights. In the event of a liquidation, dissolution, or winding-up of the Company, the holders of Common Shares are entitled to share equally and ratably in the assets of the Company, if any, remaining after the payment of all debts and liabilities of the Company and the liquidation preference of any outstanding preference shares. Authorized but unissued Common Shares may be issued at any time and at the discretion of the board of directors of the Company (the "Board") without the approval of the shareholders of the Company with such rights, preferences and limitations as the Board may determine. Holders of Common Shares have one vote for each Common Share held on all matters submitted to a vote on a poll of such holders. Most matters to be approved by holders of Common Shares require approval by a simple majority vote. All matters relating to a liquidation or sale of all or substantially all of the assets of the Company shall require the affirmative vote of a majority of the voting rights attached to all issued and outstanding capital shares of the Company entitled to vote thereon. All matters relating to an amalgamation or other reorganization of the Company with or into another

company (other than “short-form” amalgamations pursuant to section 107 of the Companies Act 1981 of Bermuda) shall require the affirmative vote of a majority of all issued and outstanding capital shares of the Company. All matters relating to a merger by the Company into another company (other than “short-form” mergers pursuant to section 107 of the Companies Act 1981 of Bermuda) shall require the approval of the holders of three-fourths of the Common Shares present in person or by proxy at a meeting and voting thereon.

The holders of Common Shares will receive such dividends, if any, as may be declared by the Board out of funds legally available for such purposes. Under Bermuda law, a company may not declare or pay a dividend, or make a distribution out of contributed surplus, if there are reasonable grounds for believing that (i) the company is, or would after the payment be, unable to pay its liabilities as they become due or (ii) the realizable value of the company’s assets would thereby be less than the aggregate of its liabilities and its issued share capital and share premium accounts.

Our registrar and transfer agent for our Common Shares is Computershare Shareowner Services LLC.

SERIES E PREFERENCE SHARES

Currently, 11,000,000 of our 5.375% Series E Preference Shares are outstanding. The Series E Preference Shares are listed on the New York Stock Exchange under the symbol “RNRPRE.” The Series E Preference Shares currently issued and outstanding are fully paid and nonassessable within the meaning of applicable Bermuda law. Because the following summary of the terms of the Series E Preference Shares is not complete, you should refer to the Memorandum, the Bye-Laws and the applicable Certificate of Designation, Preferences and Rights for complete information regarding the terms of the Series E Preference Shares.

General. The holders of Series E Preference Shares have no preemptive rights with respect to any of our common shares or any of our other securities convertible into or carrying rights or options to purchase any such shares. The Series E Preference Shares are not subject to any sinking fund or other obligation on our part to redeem or retire the Series E Preference Shares. Unless we redeem them, the Series E Preference Shares will have a perpetual term with no maturity. The Series E Preference Shares rank pari passu to our Depositary Shares (each representing 1/1000th interest in a Series F Preference Share), and senior to our common shares with respect to payment of dividends and amounts upon liquidation, dissolution or winding-up.

Dividends. Dividends on the Series E Preference Shares are payable from the date of original issuance on a non-cumulative basis, only when, as and if declared by our Board of Directors, quarterly in arrears, in an amount per share equal to 5.375% of the liquidation preference per annum.

No dividends will be paid upon any shares of any class or series of our shares ranking on a parity with the Series E Preference Shares with respect to the payment of dividends and amounts upon our liquidation, dissolution or winding up (for purposes of this section, “Parity

Shares”) (other than partial dividends to be shared pro rata by the holders of Parity Shares and Series E Preference Shares) for any period unless there will have been paid or declared and set apart for payment dividends to be paid to the holders of the Series E Preference Shares for the current dividend period. No dividends will be paid upon any class or series of our shares ranking junior to the Series E Preference Shares with respect to either the payment of dividends or amounts upon our liquidation, dissolution or winding up (for purposes of this section, “Junior Shares”) for any period unless there will have been paid or declared and set apart for payment dividends to be paid to the holders of the Series E Preference Shares and Parity Shares for the current dividend period, subject to certain exceptions.

Liquidation. In case of our voluntary or involuntary liquidation, dissolution or winding up, the holders of Series E Preference Shares will be entitled to receive from our assets legally available for distribution to shareholders a liquidation preference of \$25 per share, plus declared and unpaid dividends, if any, to the date of liquidation, without accumulation of any undeclared dividends and without interest.

It is possible that, in case of our voluntary or involuntary liquidation, dissolution or winding up, our assets could be insufficient to pay the holders of all of the classes or series of preference shares then outstanding the full, or any, amounts to which they may be entitled. In that circumstance, the holders of Series E Preference Shares and any Parity Shares will share ratably in such assets in accordance with the respective amounts that would be payable on such Series E Preference Shares and such Parity Shares if all amounts payable thereon were paid in full.

Our amalgamation, consolidation or merger with or into any other corporation, or a sale of all or substantially all of our assets, or a statutory share exchange, will not be deemed to constitute a liquidation, dissolution or winding up.

Redemption. We may redeem the Series E Preference Shares, in whole or in part, at any time upon not less than 30 nor more than 60 days’ written notice, at a redemption price of \$25 per share, plus an amount equal to the portion of the quarterly dividend attributable to the then-current dividend period to, but excluding, the date of redemption. The Series E Preference Shares have no stated maturity, are not subject to any sinking fund or mandatory redemption and are not convertible into or exchangeable for any of our other securities. We may not redeem the Series E Preference Shares before June 1, 2018, except that we may redeem the Series E Preference Shares before that date at a redemption price of \$26 per share, plus declared and unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends and without interest, if we submit a proposal to our common shareholders concerning an amalgamation or submit any proposal for any other matter that requires, as a result of a change in Bermuda law, the approval of the holders of the Series E Preference Shares, whether voting as a separate series or together with any other series of preference shares as a single class. In addition, at any time upon not less than 30 nor more than 60 days’ written notice following the occurrence of a “tax event” or within 90 days under certain circumstances following the occurrence of a “capital redemption trigger date,” we may redeem the Series E Preference Shares, in whole or in part, at a redemption price of \$25 per share, plus declared and

unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends and without interest.

Unless there will have been paid or declared and set apart for payment full dividends for the holders of the Series E Preference Shares and the holders of any Parity Shares for the latest completed dividend period:

(1) we may not purchase any Series E Preference Shares or Parity Shares except in accordance with a purchase offer made in writing to all holders of Series E Preference Shares and Parity Shares upon such terms as the Board, in its sole discretion after consideration of the respective annual dividend rate and other relative rights and preferences of the respective classes or series, will determine (which determination will be final and conclusive) will result in fair and equitable treatment among the respective classes or series; and

(2) we may not redeem, purchase or otherwise acquire, or permit any subsidiary to purchase or acquire, any Junior Shares, subject to certain exceptions.

Reissuance of Shares. Any Series E Preference Shares reacquired in any manner by us will have the status of authorized but unissued preference shares, and may be reissued as part of the same class or series or may be reclassified and reissued by the Board in the same manner as any other authorized and unissued preference shares.

Voting. Except as indicated below or as otherwise required by applicable law, the holders of Series E Preference Shares will have no voting rights.

Pursuant to the terms of the Certificate of Designation, Preferences and Rights of the Series E Preference Shares, whenever dividends payable on the Series E Preference Shares or on any Parity Shares are in arrears in an aggregate amount equivalent to six full quarterly dividends on all of such Series E Preference Shares or Parity Shares, as applicable, then outstanding, the holders of Series E Preference Shares, together with the holders of Parity Shares, will have the right, voting together as a single class regardless of class or series, to elect two directors of our Board. We will use our best efforts to increase the number of directors constituting the Board to the extent necessary to effectuate such right. Whenever all arrearages in dividends on the Series E Preference Shares and the Parity Shares shall have been paid and dividends thereon for the current quarterly dividend period shall have been declared and paid or set apart for payment, the rights of such holders of Series E Preference Shares and the Parity Shares to elect members of the Board will cease, subject to revesting in the event of each and every subsequent default in an aggregate amount equivalent to six full quarterly dividends.

Pursuant to the terms of the Certificate of Designation, Preferences and Rights of the Series E Preference Shares, the rights attached to the Series E Preference Shares may only be varied with the consent in writing of the holders of three-quarters of the outstanding Series E Preference Shares, or with the sanction of a special resolution approved by at least a majority of the votes cast by the holders of the Series E Preference Shares at a separate meeting in which a quorum is present; provided, however, that the terms of the Series E Preference Shares may also

be varied under certain circumstances in connection with a “tax event” or a “capital redemption disqualification event”. The rights attached to Series E Preference Shares will not be deemed to be varied by the creation or issue of any shares or any securities convertible into or evidencing the right to purchase shares ranking prior to or equally with the Series E Preference Shares with respect to the payment of dividends or of assets upon liquidation, dissolution or winding up. Holders of Series E Preference Shares are not entitled to vote on any sale of all or substantially all of our assets.

On any item on which the holders of the Series E Preference Shares are entitled to vote pursuant to the terms of its Certificate of Designation, Preferences and Rights, such holders will be entitled to one vote for each Series E Preference Share held.

Currently, under Bermuda law each share (including preference shares) of an amalgamating or merging company carries the right to vote in respect of an amalgamation or merger whether or not it otherwise carries the right to vote. The provisions of Bermuda law, and thus these voting rights as to amalgamations and mergers, are subject to change at any time.

A more detailed description of the Series E Preference Shares is set forth in our registration statement filed under the Exchange Act on Form 8-A on May 28, 2013, including any amendment or report for the purpose of updating such description. If we issue preference shares in the future, they may, or may not, be on terms similar to the Series E Preference Shares.

SERIES F PREFERENCE SHARES

Currently, 10,000 of our 5.750% Series F Preference Shares (equivalent to 10,000,000 Depositary Shares) are outstanding. The 10,000,000 Depositary Shares, each representing 1/1,000th of an interest in a share of 5.750% Series F Preference Shares, are listed on the New York Stock Exchange under the symbol “RNRPRF.” The Series F Preference Shares (and the Depositary Shares) currently issued and outstanding are fully paid and nonassessable within the meaning of applicable Bermuda law.

Because the following summary of the terms of the Series F Preference Shares is not complete, you should refer to the Memorandum, the Bye-Laws and the applicable Certificate of Designation, Preferences and Rights for complete information regarding the terms of the Series F Preference Shares.

General. The holders of Series F Preference Shares have no preemptive rights with respect to any of our common shares or any of our other securities convertible into or carrying rights or options to purchase any such shares. The Series F Preference Shares are not subject to any sinking fund or other obligation on our part to redeem or retire the Series F Preference Shares. Unless we redeem them, the Series F Preference Shares will have a perpetual term with no maturity. The Series F Preference Shares rank pari passu to our Series E Preference Shares and senior to our common shares with respect to payment of dividends and amounts upon liquidation, dissolution or winding-up.

Dividends. Dividends on the Series F Preference Shares (and the Depositary Shares) are payable from the date of original issuance on a non-cumulative basis, only when, as and if declared by our Board of Directors, quarterly in arrears, in an amount per share equal to 5.750% of the liquidation preference per annum.

No dividends will be paid upon any shares of any class or series of our shares ranking on a parity with the Series F Preference Shares with respect to the payment of dividends and amounts upon our liquidation, dissolution or winding up (for purposes of this section, "Parity Shares") (other than partial dividends to be shared pro rata by the holders of Parity Shares and Series F Preference Shares) for any period unless there will have been paid or declared and set apart for payment dividends to be paid to the holders of the Series F Preference Shares for the current dividend period. No dividends will be paid upon any class or series of our shares ranking junior to the Series F Preference Shares with respect to either the payment of dividends or amounts upon our liquidation, dissolution or winding up (for purposes of this section, "Junior Shares") for any period unless there will have been paid or declared and set apart for payment dividends to be paid to the holders of the Series F Preference Shares and Parity Shares for the current dividend period, subject to certain exceptions.

Liquidation. In case of our voluntary or involuntary liquidation, dissolution or winding up, the holders of Series F Preference Shares will be entitled to receive from our assets legally available for distribution to shareholders a liquidation preference of \$25,000 per 5.750% Series F Preference Share (equivalent to \$25 per Depositary Share), plus declared and unpaid dividends, if any, to the date of liquidation, without accumulation of any undeclared dividends and without interest.

It is possible that, in case of our voluntary or involuntary liquidation, dissolution or winding up, our assets could be insufficient to pay the holders of all of the classes or series of preference shares then outstanding the full, or any, amounts to which they may be entitled. In that circumstance, the holders of Series F Preference Shares and any Parity Shares will share ratably in such assets in accordance with the respective amounts that would be payable on such Series F Preference Shares and such Parity Shares if all amounts payable thereon were paid in full.

Our amalgamation, consolidation or merger with or into any other corporation, or a sale of all or substantially all of our assets, or a statutory share exchange, will not be deemed to constitute a liquidation, dissolution or winding up.

Redemption. On and after June 30, 2023, we may redeem the Series F Preference Shares, in whole or in part, at any time upon not less than 30 nor more than 60 days' written notice, at a redemption price of \$25,000 per 5.750% Series F Preference Share (equivalent to \$25 per Depositary Share), plus an amount equal to the portion of the quarterly dividend attributable to the then-current dividend period to, but excluding, the date of redemption; provided that no redemption may occur prior to June 30, 2028 unless (1) we have sufficient funds in order to meet the Bermuda Monetary Authority's (the "BMA") Enhanced Capital Requirement and the BMA (or its successor, if any) approves of the redemption or (2) we replace the capital represented by

preference shares to be redeemed with capital having equal or better capital treatment as the preference shares under the Enhanced Capital Requirement. The Series F Preference Shares have no stated maturity, are not subject to any sinking fund or mandatory redemption and are not convertible into or exchangeable for any of our other securities. We may not redeem the Series F Preference Shares before June 30, 2023, except that we may redeem the Series F Preference Shares before that date at a redemption price of \$26,000 per share (equivalent to \$26 per Depositary Share), plus declared and unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends and without interest, if we submit a proposal to our common shareholders concerning an amalgamation or submit any proposal for any other matter that requires, as a result of a change in Bermuda law, the approval of the holders of the Series F Preference Shares, whether voting as a separate series or together with any other series of preference shares as a single class. In addition, at any time upon not less than 30 nor more than 60 days' written notice following the occurrence of a "tax event" or within 90 days under certain circumstances following the occurrence of a "capital redemption trigger date," we may redeem the Series F Preference Shares, in whole or in part, at a redemption price of \$25,000 per 5.750% Series F Preference Share (equivalent to \$25 per Depositary Share), plus declared and unpaid dividends, if any, to, but excluding, the date of redemption, without accumulation of any undeclared dividends and without interest.

Unless there will have been paid or declared and set apart for payment full dividends for the holders of the Series F Preference Shares and the holders of any Parity Shares for the latest completed dividend period:

(1) we may not purchase any Series F Preference Shares or Parity Shares except in accordance with a purchase offer made in writing to all holders of Series F Preference Shares and Parity Shares upon such terms as the Board, in its sole discretion after consideration of the respective annual dividend rate and other relative rights and preferences of the respective classes or series, will determine (which determination will be final and conclusive) will result in fair and equitable treatment among the respective classes or series; and

(2) we may not redeem, purchase or otherwise acquire, or permit any subsidiary to purchase or acquire, any Junior Shares, subject to certain exceptions.

Reissuance of Shares. Any Series F Preference Shares reacquired in any manner by us will have the status of authorized but unissued preference shares, and may be reissued as part of the same class or series or may be reclassified and reissued by the Board in the same manner as any other authorized and unissued preference shares.

Voting. Except as indicated below or as otherwise required by applicable law, the holders of Series F Preference Shares will have no voting rights.

Pursuant to the terms of the Certificate of Designation, Preferences and Rights of the Series F Preference Shares, whenever dividends payable on the Series F Preference Shares or on any Parity Shares are in arrears in an aggregate amount equivalent to six full quarterly dividends on all of such Series F Preference Shares or Parity Shares, as applicable, then outstanding, the

holders of Series F Preference Shares, together with the holders of Parity Shares, will have the right, voting together as a single class regardless of class or series, to elect two directors of our Board. We will use our best efforts to increase the number of directors constituting the Board to the extent necessary to effectuate such right. Whenever all arrearages in dividends on the Series F Preference Shares and the Parity Shares shall have been paid and dividends thereon for the current quarterly dividend period shall have been declared and paid or set apart for payment, the rights of such holders of Series E Preference Shares and the Parity Shares to elect members of the Board will cease, subject to revesting in the event of each and every subsequent default in an aggregate amount equivalent to six full quarterly dividends.

Pursuant to the terms of the Certificate of Designation, Preferences and Rights of the Series E Preference Shares, the rights attached to the Series F Preference Shares may only be varied with the consent in writing of the holders of three-quarters of the outstanding Series F Preference Shares, or with the sanction of a special resolution approved by at least a majority of the votes cast by the holders of the Series E Preference Shares at a separate meeting in which a quorum is present; provided, however, that the terms of the Series F Preference Shares may also be varied under certain circumstances in connection with a “tax event” or a “capital redemption disqualification event”. The rights attached to Series F Preference Shares will not be deemed to be varied by the creation or issue of any shares or any securities convertible into or evidencing the right to purchase shares ranking prior to or equally with the Series F Preference Shares with respect to the payment of dividends or of assets upon liquidation, dissolution or winding up. Holders of Series F Preference Shares are not entitled to vote on any sale of all or substantially all of our assets.

On any item on which the holders of the Series F Preference Shares are entitled to vote pursuant to the terms of its Certificate of Designation, Preferences and Rights, such holders will be entitled to one vote for each Series F Preference Share held.

Currently, under Bermuda law each share (including preference shares) of an amalgamating or merging company carries the right to vote in respect of an amalgamation or merger whether or not it otherwise carries the right to vote. The provisions of Bermuda law, and thus these voting rights as to amalgamations and mergers, are subject to change at any time.

A more detailed description of the Series F Preference Shares is set forth in our registration statement filed under the Exchange Act on Form 8-A on June 18, 2018, including any amendment or report for the purpose of updating such description. If we issue preference shares in the future, they may, or may not, be on terms similar to the Series F Preference Shares.

TRANSFER OF SHARES

Our Bye-Laws contain various provisions affecting the transferability of our shares. Under the Bye-Laws, the Board has absolute discretion to decline to register a transfer of shares:

(1) unless the appropriate instrument of transfer is submitted along with such evidence as the Board may reasonably require showing the right of the transferor to make the transfer; or

(2) unless all applicable consents and authorizations of any governmental body or agency in Bermuda have been obtained.

In addition, our Bye-laws provide that no Person shall be permitted to own or control our shares to the extent such ownership would result in such Person or any other any Person being considered to own or control Controlled Shares, as our Board may determine in its sole discretion, and such ownership of Controlled Shares (i) would render any Person a Ten Percent Shareholder, (ii) cause us to become a “controlled foreign corporation” within the meaning of section 957 of the U.S. Internal Revenue Code of 1986, as amended (the “Code”), or (iii) cause us to become a “foreign personal holding company” within the meaning of section 552 of the Code. Our Board has the right to waive these restrictions in its sole discretion and may decline to register any transfer of shares if the transfer, in the discretion of the Board, would have any of the effects described in clauses (i)-(iii) above. These limits may have the effect of deterring purchases of large blocks of common shares or proposals to acquire us, even if some or a majority of the shareholders might deem these purchases or acquisition proposals to be in their best interests.

“Controlled Shares” in reference to any Person means (i) all of our capital shares such Person is deemed to own directly, indirectly or by attribution (within the meaning of Section 958 of the Code) and (ii) all of our capital shares directly, indirectly or beneficially owned by such Person (within the meaning of section 13(d) of the Exchange Act).

“Ten Percent Shareholder” means a Person who our Board of Directors determines, in its sole and absolute discretion, owns or controls Controlled Shares representing more than 9.9% of the total voting rights of all of our issued and outstanding capital shares.

“Person” means an individual, partnership, joint-stock company, corporation, trust or unincorporated organization, limited liability company, a government, agency or political subdivision thereof, an entity or arrangement treated as one of the foregoing for U.S. income tax purposes, or a “group” within the meaning of section 13(d) of the Exchange Act.

Our Bermuda counsel has advised us that, while the precise form of the restrictions on transfers contained in the Bye-Laws is untested, as a matter of general principle, restrictions on transfers are enforceable under Bermuda law and are not uncommon.

SUBSIDIARIES OF RENAISSANCERE HOLDINGS LTD.

Name	Jurisdiction	Ownership Interest Held Directly or Indirectly by RenaissanceRe Holdings Ltd.
DaVinci Reinsurance Ltd.	Bermuda	(1)
DaVinciRe Holdings Ltd.	Bermuda	(1)
Renaissance Investment Holdings Ltd.	Bermuda	100%
Renaissance Investment Holdings II Ltd.	Bermuda	100%
Renaissance Investment Management Company Limited	Bermuda	100%
Renaissance Other Investments Holdings Ltd.	Bermuda	100%
Renaissance Other Investments Holdings II Ltd.	Bermuda	100%
Renaissance Other Investments Holdings III Ltd.	Bermuda	100%
Renaissance Reinsurance Ltd.	Bermuda	100%
Renaissance Reinsurance of Europe Unlimited Company	Ireland	100%
Renaissance Reinsurance U.S. Inc.	Maryland	100%
Renaissance Services of Europe Unlimited Company	Ireland	100%
Renaissance Underwriting Managers, Ltd.	Bermuda	100%
RenaissanceRe Corporate Capital (UK) Limited (2)	U.K.	100%
RenaissanceRe Europe AG	Switzerland	100%
RenaissanceRe Finance Inc.	Delaware	100%
RenaissanceRe Fund Holdings Ltd.	Bermuda	100%
RenaissanceRe Fund Management Ltd.	Bermuda	100%
RenaissanceRe IP (US) LLC	Delaware	100%
RenaissanceRe Medici Fund Ltd.	Bermuda	(3)
RenaissanceRe Services Ltd.	Bermuda	100%
RenaissanceRe Specialty Holdings (UK) Limited	Bermuda	100%
RenaissanceRe Specialty U.S. Ltd.	Bermuda	100%
RenaissanceRe Syndicate Management Limited	U.K.	100%
RenaissanceRe Underwriting Managers U.S. Ltd.	Delaware	100%
RenaissanceRe Ventures Ltd.	Bermuda	100%
RenRe Insurance Holdings Ltd.	Bermuda	100%
RenRe North America Holdings Inc.	Delaware	100%
Top Layer Reinsurance Ltd.	Bermuda	50%
Upsilon RFO Re Ltd.	Bermuda	(4)
Vermeer Reinsurance Ltd.	Bermuda	(5)
RenaissanceRe Risk Sciences Inc. (6)	Virginia	100%
Weather Predict Inc.	Delaware	100%

- (1) As of December 31, 2020, the Company owned 21.4% of the outstanding equity of DaVinciRe Holdings Ltd.'s ("DaVinciRe") but controlled a majority of DaVinciRe's outstanding voting power, and accordingly, DaVinciRe's financial results are consolidated in the Company's financial statements. DaVinci Reinsurance Ltd. is a wholly owned subsidiary of DaVinciRe.
- (2) RenaissanceRe Corporate Capital (UK) Limited is the Lloyd's sponsor of RenaissanceRe Syndicate 1458.
- (3) As of December 31, 2020, the Company owned 15.7% of the outstanding equity of RenaissanceRe Medici Fund Ltd.'s ("RenaissanceRe Medici Fund") but controlled a majority of RenaissanceRe Medici Fund's outstanding voting power, and accordingly, RenaissanceRe Medici Fund's financial results are consolidated in the Company's financial statements.
- (4) Upsilon RFO Re Ltd. is considered a variable interest entity and the Company is considered the primary beneficiary of Upsilon RFO Re Ltd., as a result its financial results are consolidated in the Company's financial statements. As of December 31, 2020, the Company's participation in the risks assumed by Upsilon RFO Ltd. was 13.8%.
- (5) Vermeer Reinsurance Ltd. ("Vermeer") is considered a variable interest entity and the Company is considered the primary beneficiary of Vermeer, as a result its financial results are consolidated in the Company's financial statements. The Company maintains a majority voting control of Vermeer, while the sole third-party investor retains all of the economic benefits.
- (6) RenaissanceRe Risk Sciences Inc. was formerly known as Weather Predict Consulting, Inc.

The names of a number of the Company's subsidiaries and equity entities have been omitted because considered in the aggregate they would not constitute a single significant subsidiary.

Issuers of Registered Guaranteed Debt Securities

RenaissanceRe Finance Inc. ("RenaissanceRe Finance") is an indirect wholly owned subsidiary of RenaissanceRe Holdings Ltd. ("RenaissanceRe Holdings"). As of December 31, 2020, (i) RenaissanceRe Finance was the issuer of \$300.0 million principal amount of its 3.450% Senior Notes due July 1, 2027 (the "2027 Notes") and (ii) RenaissanceRe Finance was the issuer of \$300.0 million principal amount of its 3.700% Senior Notes due April 1, 2025 (the "2025 Notes"). Each of the 2027 Notes and the 2025 Notes are fully and unconditionally guaranteed by RenaissanceRe.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statements (Form S-3 Nos. 333-235294 and 333-231720) of RenaissanceRe Holdings Ltd.
- (2) Registration Statement (Form S-3 No. 333-231720-01, and Post-Effective Amendment No. 1 and Post-Effective Amendment No. 2 thereto) of RenRe North America Holdings Inc.
- (3) Registration Statement (Form S-3 No. 333-231720-02, and Post-Effective Amendment No. 1 and Post-Effective Amendment No. 2 thereto) of RenaissanceRe Capital Trust II.
- (4) Registration Statement (Form S-3 No. 333-231720-03, and Post-Effective Amendment No. 1 and Post-Effective Amendment No. 2 thereto) of RenaissanceRe Finance Inc.
- (5) Registration Statement (Form S-8 No. 333-211398) pertaining to the RenaissanceRe Holdings Ltd. 2016 Long-Term Incentive Plan.

of our reports dated February 5, 2021, with respect to the consolidated financial statements, financial statement schedules and the effectiveness of internal control over financial reporting of RenaissanceRe Holdings Ltd., included in this Annual Report (Form 10-K) for the year ended December 31, 2020.

/s/ Ernst & Young Ltd.

Hamilton, Bermuda
February 5, 2021

CERTIFICATION

I, Kevin J. O'Donnell, certify that:

1. I have reviewed this Form 10-K of RenaissanceRe Holdings Ltd.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 5, 2021

/s/ Kevin J. O'Donnell

Kevin J. O'Donnell
Chief Executive Officer

CERTIFICATION

I, Robert Qutub, certify that:

1. I have reviewed this Form 10-K of RenaissanceRe Holdings Ltd.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 5, 2021

/s/ Robert Qutub
Robert Qutub
Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Form 10-K of RenaissanceRe Holdings Ltd. (the "Company") for the year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kevin J. O'Donnell, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Kevin J. O'Donnell

Kevin J. O'Donnell
Chief Executive Officer
February 5, 2021

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Form 10-K of RenaissanceRe Holdings Ltd. (the "Company") for the year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert Qutub, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Robert Qutub

Robert Qutub

Chief Financial Officer

February 5, 2021