UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

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

For the quarterly period ended March 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 Number: 001-14428

RENAISSANCERE HOLDINGS LTD.

(Exact Name Of Registrant As Specified In Its Charter)

Bermuda	**98-0141974**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

Renaissance House, 12 Crow Lane, Pembroke, Bermuda **HM 19**
(Address of Principal Executive Office) (Zip Code)

(441) 295-4513
(Registrant's telephone number, including area code)

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

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
Depositary 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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the 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 is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The number of Common Shares, par value US $1.00 per share, outstanding at May 4, 2020 was 44,033,618.

RENAISSANCERE HOLDINGS LTD.
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NOTE ON FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q (this “Form 10-Q”) 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-Q 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 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 and our ability to conduct our business;
- the impact of the COVID-19 pandemic on the value of our investments and access to capital;
- 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;
- soft reinsurance underwriting market conditions;
- the performance of our investment portfolio;
- 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 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;
- 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;
- the effect of cybersecurity risks, including technology breaches or failure, on our business;
- 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 servicing 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;
- the effect of the vote by the United Kingdom (the “U.K.”) to leave the EU;
- 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
- risks that the ongoing integration of TMR (as defined herein) disrupts or distracts from current plans and operations.

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 our filings with the U.S. Securities and Exchange Commission ("SEC"), including our Annual Report on Form 10-K ("Form 10-K") for the year ended December 31, 2019 and under Part II, Item 1A of this Quarterly Report on Form 10-Q, should not be construed as exhaustive. The effects of the events and circumstances described in the risk factors contained in this Form 10-Q may have the effect of heightening many of the risks contained in our Form 10-K. 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 FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Balance Sheets
(in thousands of United States Dollars, except share and per share amounts)

	March 31, 2020	December 31, 2019
Assets	(Unaudited)	(Audited)
Fixed maturity investments trading, at fair value – amortized cost $10,941,672 at March 31, 2020 (December 31, 2019 – $11,067,414)	$ 11,045,801	$ 11,171,655
Short term investments, at fair value	5,263,242	4,566,277
Equity investments trading, at fair value	360,444	436,931
Other investments, at fair value	1,058,714	1,087,377
Investments in other ventures, under equity method	90,396	106,549
Total investments	17,818,597	17,368,789
Cash and cash equivalents	896,216	1,379,068
Premiums receivable	3,105,441	2,599,896
Prepaid reinsurance premiums	1,151,926	767,781
Reinsurance recoverable	2,765,583	2,791,297
Accrued investment income	73,496	72,461
Deferred acquisition costs and value of business acquired	739,875	663,991
Receivable for investments sold	341,786	78,369
Other assets	312,523	346,216
Goodwill and other intangible assets	260,076	262,226
Total assets	$ 27,465,519	$ 26,330,094
Liabilities, Noncontrolling Interests and Shareholders' Equity		
Liabilities		
Reserve for claims and claim expenses	$ 9,406,707	$ 9,384,349
Unearned premiums	3,245,914	2,530,975
Debt	1,134,695	1,384,105
Reinsurance balances payable	3,775,375	2,830,691
Payable for investments purchased	636,136	225,275
Other liabilities	351,320	932,024
Total liabilities	18,550,147	17,287,419
Commitments and Contingencies		
Redeemable noncontrolling interests	3,231,846	3,071,308
Shareholders' Equity		
Preference shares: $1.00 par value – 11,010,000 shares issued and outstanding at March 31, 2020 (December 31, 2019 – 16,010,000)	525,000	650,000
Common shares: $1.00 par value – 44,033,618 shares issued and outstanding at March 31, 2020 (December 31, 2019 – 44,148,116)	44,034	44,148
Additional paid-in capital	502,608	568,277
Accumulated other comprehensive loss	(1,664)	(1,939)
Retained earnings	4,613,548	4,710,881
Total shareholders' equity attributable to RenaissanceRe	5,683,526	5,971,367
Total liabilities, noncontrolling interests and shareholders' equity	$ 27,465,519	$ 26,330,094

See accompanying notes to the consolidated financial statements

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

	Three months ended	
	March 31, 2020	March 31, 2019
Revenues		
Gross premiums written	$ 2,025,721	$ 1,564,295
Net premiums written	$ 1,269,808	$ 929,031
Increase in unearned premiums	(356,710)	(379,003)
Net premiums earned	913,098	550,028
Net investment income	99,473	82,094
Net foreign exchange losses	(5,728)	(2,846)
Equity in earnings of other ventures	4,564	4,661
Other (loss) income	(4,436)	3,171
Net realized and unrealized (losses) gains on investments	(110,707)	170,013
Total revenues	896,264	807,121
Expenses		
Net claims and claim expenses incurred	570,954	227,035
Acquisition expenses	210,604	123,951
Operational expenses	67,461	44,933
Corporate expenses	15,991	38,789
Interest expense	14,927	11,754
Total expenses	879,937	446,462
Income before taxes	16,327	360,659
Income tax benefit (expense)	8,846	(7,531)
Net income	25,173	353,128
Net income attributable to redeemable noncontrolling interests	(98,091)	(70,222)
Net (loss) income attributable to RenaissanceRe	(72,918)	282,906
Dividends on preference shares	(9,056)	(9,189)
Net (loss) income (attributable) available to RenaissanceRe common shareholders	$ (81,974)	$ 273,717
Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share – basic	$ (1.89)	$ 6.43
Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share – diluted	$ (1.89)	$ 6.43
Dividends per common share	$ 0.35	$ 0.34

See accompanying notes to the consolidated financial statements

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Statements of Comprehensive (Loss) Income
For the three months ended March 31, 2020 and 2019
(in thousands of United States Dollars) (Unaudited)

	Three months ended	
	March 31, 2020	March 31, 2019
Comprehensive (loss) income		
Net income	$ 25,173	$ 353,128
Change in net unrealized losses on investments, net of tax	(657)	(37)
Foreign currency translation adjustments, net of tax	932	—
Comprehensive income	25,448	353,091
Net income attributable to redeemable noncontrolling interests	(98,091)	(70,222)
Comprehensive income attributable to redeemable noncontrolling interests	(98,091)	(70,222)
Comprehensive (loss) income attributable to RenaissanceRe	$ (72,643)	$ 282,869

See accompanying notes to the consolidated financial statements

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Statements of Changes in Shareholders' Equity
For the three months ended March 31, 2020 and 2019
(in thousands of United States Dollars) (Unaudited)

	Three months ended	
	March 31, 2020	March 31, 2019
Preference shares		
Beginning balance	$ 650,000	$ 650,000
Repurchase of shares	(125,000)	—
Ending balance	525,000	650,000
Common shares		
Beginning balance	44,148	42,207
Issuance of shares	—	1,739
Repurchase of shares	(406)	—
Exercise of options and issuance of restricted stock awards	292	213
Ending balance	44,034	44,159
Additional paid-in capital		
Beginning balance	568,277	296,099
Issuance of shares	—	248,259
Repurchase of shares	(62,215)	—
Change in redeemable noncontrolling interests	(349)	(3)
Exercise of options and issuance of restricted stock awards	(3,105)	(466)
Ending balance	502,608	543,889
Accumulated other comprehensive loss		
Beginning balance	(1,939)	(1,433)
Change in net unrealized losses on investments, net of tax	(657)	(37)
Foreign currency translation adjustments, net of tax	932	—
Ending balance	(1,664)	(1,470)
Retained earnings		
Beginning balance	4,710,881	4,058,207
Net income	25,173	353,128
Net income attributable to redeemable noncontrolling interests	(98,091)	(70,222)
Dividends on common shares	(15,359)	(14,469)
Dividends on preference shares	(9,056)	(9,189)
Ending balance	4,613,548	4,317,455
Total shareholders' equity	$ 5,683,526	$ 5,554,033

See accompanying notes to the consolidated financial statements

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Statements of Cash Flows
For the three months ended March 31, 2020 and 2019
(in thousands of United States Dollars) (Unaudited)

	Three months ended	
	March 31, 2020	March 31, 2019
Cash flows provided by operating activities		
Net income	$ 25,173	$ 353,128
Adjustments to reconcile net income to net cash provided by operating activities		
Amortization, accretion and depreciation	(4,405)	(3,606)
Equity in undistributed earnings of other ventures	7,398	5,965
Net realized and unrealized losses (gains) on investments	110,707	(170,013)
Change in:		
Premiums receivable	(505,545)	(578,175)
Prepaid reinsurance premiums	(384,145)	(330,044)
Reinsurance recoverable	25,714	12,619
Deferred acquisition costs	(75,884)	(58,861)
Reserve for claims and claim expenses	22,358	(92,303)
Unearned premiums	714,939	709,046
Reinsurance balances payable	944,684	837,333
Other	(405,528)	(307,940)
Net cash provided by operating activities	475,466	377,149
Cash flows used in investing activities		
Proceeds from sales and maturities of fixed maturity investments trading	3,661,294	4,600,808
Purchases of fixed maturity investments trading	(3,370,394)	(3,519,277)
Net purchases of equity investments trading	(44,514)	(4,601)
Net purchases of short term investments	(704,226)	(1,374,632)
Net purchases of other investments	(79,711)	(51,811)
Net purchases of investments in other ventures	(1,888)	(1,573)
Return of investment from investment in other ventures	9,157	11,250
Net purchase of TMR	—	(276,206)
Net cash used in investing activities	(530,282)	(616,042)
Cash flows (used in) provided by financing activities		
Dividends paid – RenaissanceRe common shares	(15,359)	(14,469)
Dividends paid – preference shares	(9,056)	(9,189)
RenaissanceRe common share repurchases	(62,621)	—
Repayment of debt	(250,000)	—
Repayment of RenaissanceRe Revolving Credit Facility	—	200,000
Redemption of 6.08% Series C preference shares	(125,000)	—
Net third party redeemable noncontrolling interest share transactions	42,599	(16,847)
Taxes paid on withholding shares	(10,180)	(6,957)
Net cash (used in) provided by financing activities	(429,617)	152,538
Effect of exchange rate changes on foreign currency cash	1,581	(292)
Net decrease in cash and cash equivalents	(482,852)	(86,647)
Cash and cash equivalents, beginning of period	1,379,068	1,107,922
Cash and cash equivalents, end of period	$ 896,216	$ 1,021,275

See accompanying notes to the consolidated financial statements

NOTE 1. ORGANIZATION

This report on Form 10-Q should be read in conjunction with RenaissanceRe's Annual Report on Form 10-K ("Form 10-K") for the fiscal year ended December 31, 2019.

RenaissanceRe was formed under the laws of Bermuda on June 7, 1993. Together with its wholly owned and majority-owned subsidiaries and joint ventures, the Company provides property, casualty and specialty reinsurance and certain insurance solutions to its customers.

- 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 Europe"), 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"). See "Note 3. Acquisition of Tokio Millennium Re" in the Company's "Notes to the Consolidated Financial Statements" included in the Company's Form 10-K for the year ended December 31, 2019 for additional information regarding the TMR Stock Purchase.
- 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 Underwriting Managers U.S. LLC, a specialty reinsurance agency domiciled in the state of Connecticut, provides specialty treaty reinsurance solutions on both a quota share and excess of loss basis; and writes business on behalf of RenaissanceRe Specialty U.S. Ltd. ("RenaissanceRe Specialty U.S."), a Bermuda-domiciled reinsurer, which operates subject to U.S. federal income tax, and RenaissanceRe Syndicate 1458 ("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.
- RenaissanceRe Europe, 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 UK, a U.K.-domiciled reinsurance company in run-off, provided property, casualty and specialty reinsurance coverages on a worldwide basis. RenaissanceRe UK was placed into run-off effective July 1, 2015, from which date all new and renewal business was written by the U.K. branch of RenaissanceRe Europe. On February 4, 2020, RenaissanceRe Specialty Holdings entered into an agreement to sell RenaissanceRe UK to an investment vehicle managed by AXA Liabilities Managers, an affiliate of AXA XL. The sale is subject to regulatory approval and is expected to close in 2020.
- The Company also manages property, casualty and specialty reinsurance business written on behalf of joint ventures, which include Top Layer Reinsurance Ltd. ("Top Layer Re"), recorded under the equity method of accounting, and DaVinci Reinsurance Ltd. ("DaVinci"). Because the Company owns

a noncontrolling equity interest in, but controls a majority of the outstanding voting power of, DaVinci's parent, DaVinciRe Holdings Ltd. ("DaVinciRe"), the results of DaVinci and DaVinciRe are consolidated in the Company's consolidated financial statements and all significant intercompany transactions have been eliminated. Redeemable noncontrolling interest - DaVinciRe represents the interests of external parties with respect to the net income and shareholders' equity of DaVinciRe. Renaissance Underwriting Managers, Ltd. ("RUM"), a wholly owned subsidiary of RenaissanceRe, acts as exclusive underwriting manager for these joint ventures in return for fee-based income and profit participation.

- RenaissanceRe Medici Fund Ltd. ("Medici") is an exempted fund, incorporated under the laws of Bermuda. Medici's objective is to seek to invest substantially all of its assets in various insurance-based investment instruments that have returns primarily tied to property catastrophe risk. Third-party investors have subscribed for a portion of the participating, non-voting common shares of Medici. Because the Company owns a noncontrolling equity interest in, but controls a majority of the outstanding voting power of Medici, through its wholly-owned parent, RenaissanceRe Fund Holdings Ltd. ("Fund Holdings"), the results of Medici and Fund Holdings are consolidated in the Company's consolidated financial statements and all significant inter-company transactions have been eliminated. Redeemable noncontrolling interest - Medici represents the interests of external parties with respect to the net income and shareholders' equity of Medici.
- Upsilon RFO Re Ltd., formerly known as Upsilon Reinsurance II Ltd. ("Upsilon RFO"), a Bermuda domiciled special purpose insurer ("SPI"), is a managed joint venture 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. Upsilon RFO is considered a variable interest entity ("VIE") and the Company is considered the primary beneficiary. As a result, Upsilon RFO is consolidated by the Company and all significant inter-company transactions have been eliminated.
- RenaissanceRe Upsilon Fund Ltd. ("Upsilon Fund"), an exempted Bermuda segregated accounts company, was formed by the Company to provide a fund structure through which third-party investors can invest in reinsurance risk managed by the Company. As a segregated accounts company, Upsilon Fund 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 structured to be ring-fenced from any claims from the creditors of Upsilon Fund's general account and from the creditors of other segregated accounts within Upsilon Fund. 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 an investment company and is considered a VIE. The Company is not considered the primary beneficiary of Upsilon Fund and, as a result, the Company does not consolidate the financial position and results of operations of Upsilon Fund.
- The Company formed Vermeer Reinsurance Ltd. ("Vermeer"), an exempted Bermuda reinsurer, with 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. The Company maintains a majority voting control of Vermeer, while PGGM retains economic benefits. Vermeer is considered 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. The Company does not currently expect its voting or economic interest in Vermeer to fluctuate.
- 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. Fibonacci Re is considered a VIE. The Company is not considered the primary beneficiary of Fibonacci Re and, as a result, the Company does not consolidate the financial position and results of operations of Fibonacci Re.
- The Company and Reinsurance Group of America, Incorporated closed an initiative ("Langhorne") to source third-party capital to support reinsurers targeting large in-force life and annuity blocks. Langhorne Holdings LLC ("Langhorne Holdings") is a company that owns and manages certain reinsurance entities within Langhorne. Langhorne Partners LLC ("Langhorne Partners") is the

general partner for Langhorne and the entity which manages the third-parties investing in Langhorne Holdings. The Company concluded that Langhorne Holdings meets the definition of a VIE. The Company is not the primary beneficiary of Langhorne Holdings and as a result, the Company does not consolidate the financial position or results of operations of Langhorne Holdings. The Company concluded that Langhorne Partners is not a VIE. The Company will account for its investments in Langhorne Holdings and Langhorne Partners under the equity method of accounting, one quarter in arrears.

- 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. 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 is not the primary beneficiary of Mona Lisa Re as it does not have power over the activities that most significantly impact the economic performance of Mona Lisa Re. As a result, the financial position and results of operations of Mona Lisa Re are not consolidated by the Company.
- In connection with the acquisition of TMR, the Company manages Shima Reinsurance Ltd. ("Shima Re"), Norwood Re Ltd. ("Norwood Re") and Blizzard Re Ltd. ("Blizzard Re") (together, the "TMR managed third-party capital vehicles"), which provide third-party investors with access to reinsurance risk formerly managed by TMR. Following the closing of the acquisition, the retrocessionaires providing reinsurance to TMR on certain TMR managed third-party capital vehicles' legacy portfolios of in-force and expired contracts were replaced. The TMR managed third-party capital vehicles no longer write new business.

NOTE 2. SIGNIFICANT ACCOUNTING POLICIES

There have been no material changes to the Company's significant accounting policies as described in its Form 10-K for the year ended December 31, 2019, except as described below.

BASIS OF PRESENTATION

These consolidated financial statements have been prepared on the basis of accounting principles generally accepted in the U.S. ("GAAP") for interim financial information and in conformity with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete consolidated financial statements. In the opinion of management, these unaudited consolidated financial statements reflect all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation of the Company's financial position and results of operations as at the end of and for the periods presented. All significant intercompany accounts and transactions have been eliminated from these statements.

Certain comparative information has been reclassified to conform to the current presentation. Because of the seasonality of the Company's business, the results of operations and cash flows for any interim period will not necessarily be indicative of the results of operations and cash flows for the full fiscal year or subsequent quarters.

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 recoverables, including allowances for reinsurance recoverables deemed uncollectible; 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.

INVESTMENTS

Other Investments

The Company accounts for its other investments at fair value in accordance with FASB ASC Topic *Financial Instruments* with interest, dividend income, income distributions included in net investment income and realized and unrealized gains and losses included in net realized and unrealized (losses) gains 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 most recently available 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 preliminary estimates reported to the Company by its fund managers, obtaining the valuation of underlying portfolio investments where such underlying investments are publicly traded and therefore have a readily observable price, using information that is available to the Company with respect to the underlying investments, reviewing various indices for similar investments or asset classes, as well as estimating returns based on the results of similar types of investments for which the Company has obtained reported results, or other valuation methods, where possible. 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.

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 would not be impacted by the adoption of ASU 2016-13. The Company has other financial assets, such as reinsurance recoverables, that could be impacted by the adoption of ASU 2016-13. ASU 2016-13 is 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.

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 is 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 a material 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 is 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.

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 intraperiod 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. INVESTMENTS

Fixed Maturity Investments Trading

The following table summarizes the fair value of fixed maturity investments trading:

	March 31, 2020	December 31, 2019
U.S. treasuries	$ 3,915,130	$ 4,467,345
Agencies	537,490	343,031
Non-U.S. government	635,282	497,392
Non-U.S. government-backed corporate	283,577	321,356
Corporate	3,259,780	3,075,660
Agency mortgage-backed	1,056,272	1,148,499
Non-agency mortgage-backed	275,026	294,604
Commercial mortgage-backed	540,502	468,698
Asset-backed	542,742	555,070
Total fixed maturity investments trading	$ 11,045,801	$ 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.

March 31, 2020	Amortized Cost	Fair Value
Due in less than one year	$ 718,359	$ 723,397
Due after one through five years	4,984,696	5,039,456
Due after five through ten years	2,549,975	2,612,031
Due after ten years	254,762	256,375
Mortgage-backed	1,862,064	1,871,800
Asset-backed	571,816	542,742
Total	$ 10,941,672	$ 11,045,801

Equity Investments Trading

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

	March 31, 2020	December 31, 2019
Financials	$ 162,904	$ 248,189
Communications and technology	88,882	79,206
Consumer	36,920	35,987
Industrial, utilities and energy	33,859	38,583
Healthcare	32,850	29,510
Basic materials	5,029	5,456
Total	$ 360,444	$ 436,931

Pledged Investments

At March 31, 2020, $6.9 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 (December 31, 2019 - $7.0 billion). Of this amount, $1.8 billion is on deposit with, or in trust accounts for the benefit of, U.S. state regulatory authorities (December 31, 2019 - $2.0 billion).

Reverse Repurchase Agreements

At March 31, 2020, the Company held $158.6 million (December 31, 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:

	Three months ended	
	March 31, 2020	March 31, 2019
Fixed maturity investments	$ 73,338	$ 61,483
Short term investments	12,092	11,844
Equity investments	1,551	1,027
Other investments		
Catastrophe bonds	14,139	8,691
Other	1,629	1,640
Cash and cash equivalents	1,504	1,517
	104,253	86,202
Investment expenses	(4,780)	(4,108)
Net investment income	$ 99,473	$ 82,094

Net Realized and Unrealized (Losses) Gains on Investments

Net realized and unrealized (losses) gains on investments are as follows:

	Three months ended	
	March 31, 2020	March 31, 2019
Gross realized gains	$ 68,847	$ 24,373
Gross realized losses	(11,360)	(22,943)
Net realized gains on fixed maturity investments	57,487	1,430
Net unrealized (losses) gains on fixed maturity investments trading	(20,345)	103,922
Net realized and unrealized gains on investments-related derivatives	33,181	13,796
Net realized losses on equity investments trading sold during the period	(15,047)	(1,161)
Net unrealized (losses) gains on equity investments trading still held at reporting date	(105,937)	52,658
Net realized and unrealized (losses) gains on equity investments trading	(120,984)	51,497
Net realized and unrealized losses on other investments - catastrophe bonds	(14,352)	(2,210)
Net realized and unrealized (losses) gains on other investments - other	(45,694)	1,578
Net realized and unrealized (losses) gains on investments	$ (110,707)	$ 170,013

NOTE 4. 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 March 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	$ 3,915,130	$ 3,915,130	$ —	$ —
Agencies	537,490	—	537,490	—
Non-U.S. government	635,282	—	635,282	—
Non-U.S. government-backed corporate	283,577	—	283,577	—
Corporate	3,259,780	—	3,259,780	—
Agency mortgage-backed	1,056,272	—	1,056,272	—
Non-agency mortgage-backed	275,026	—	275,026	—
Commercial mortgage-backed	540,502	—	540,502	—
Asset-backed	542,742	—	542,742	—
Total fixed maturity investments	11,045,801	3,915,130	7,130,671	—
Short term investments	5,263,242	—	5,263,242	—
Equity investments trading	360,444	360,444	—	—
Other investments				
Catastrophe bonds	786,531	—	786,531	—
Private equity investments (1)	240,277	—	—	72,620
Senior secured bank loan funds (1)	22,579	—	—	—
Hedge funds (1)	9,327	—	—	—
Total other investments	1,058,714	—	786,531	72,620
Other assets and (liabilities)				
Assumed and ceded (re)insurance contracts (2)	1,223	—	—	1,223
Derivatives (3)	1,855	(2,328)	4,183	—
Total other assets and (liabilities)	3,078	(2,328)	4,183	1,223
	$ 17,731,279	$ 4,273,246	$ 13,184,627	$ 73,843

(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 March 31, 2020 was $26.4 million of other assets and $25.2 million of other liabilities.

(3) See "Note 13. 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
	$ 17,283,908	$ 4,903,256	$ 12,070,185	$ 79,365

(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) See “Note 13. 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, municipal, 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 March 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 (December 31, 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 March 31, 2020, the Company’s agency fixed maturity investments had a weighted average yield to maturity of 1.0% and a weighted average credit quality of AA (December 31, 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 March 31, 2020, the Company’s non-U.S. government fixed maturity investments had a weighted average yield to maturity of 0.8% and a weighted average credit quality of AAA (December 31, 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 March 31, 2020, the Company’s non-U.S. government-backed corporate fixed maturity investments had a weighted average yield to maturity of 1.2% and a weighted average credit quality of AAA (December 31, 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 March 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 3.8% and a weighted average credit quality of BBB (December 31, 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 March 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 1.4%, a weighted average credit quality of AA and a weighted average life of 3.5 years (December 31, 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 March 31, 2020, the Company’s non-agency prime residential mortgage-backed fixed maturity investments had a weighted average yield to maturity of 5.6%, a weighted average credit quality of BBB and a weighted average life of 4.4 years (December 31, 2019 - 3.3%, BBB and 4.8 years, respectively). The Company’s non-agency Alt-A fixed maturity investments held at March 31, 2020 had a weighted average yield to maturity of 6.3%, a weighted average credit quality of non-investment grade and a weighted average life of 5.9 years (December 31, 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 March 31, 2020, the Company’s commercial mortgage-backed fixed maturity investments had a weighted average yield to maturity of 3.1%, a weighted average credit quality of AAA, and a weighted average life of 5.8 years (December 31, 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 March 31, 2020, the Company’s asset-backed fixed maturity investments had a weighted average yield to maturity of 4.4%, a weighted average credit quality of AAA and a weighted average life of 3.0 years (December 31, 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 March 31, 2020, the Company’s short term investments had a weighted average yield to maturity of 0.5% and a weighted average credit quality of AAA (December 31, 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:

At March 31, 2020	Fair Value (Level 3)	Valuation Technique	Unobservable Inputs	Low	High	Weighted Average or Actual
Other investments						
Private equity investment	$ 1,822	External valuation model	Manager pricing	$ 151.69	$ 158.90	$ 151.69
Private equity investments	70,798	Internal valuation model	Discount rate	8.0%	10.0%	8.0%
			Liquidity discount	n/a	n/a	15.0%
Total other investments	72,620					
Other assets and (liabilities)						
Assumed and ceded (re)insurance contracts	(1,232)	Internal valuation model	Bond price	$ 90.99	$ 98.19	$ 94.46
			Liquidity discount	n/a	n/a	1.3%
Assumed and ceded (re)insurance contracts	(8,556)	Internal valuation model	Net undiscounted cash flows	n/a	n/a	$ 11,371
			Expected loss ratio	n/a	n/a	30.5%
			Discount rate	n/a	n/a	0.4%
Assumed and ceded (re)insurance contracts	11,011	Internal valuation model	Expected loss ratio	n/a	n/a	0.0%
Total other assets and (liabilities)	1,223					
Total assets and (liabilities) measured at fair value on a recurring basis using Level 3 inputs	$ 73,843					

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.

	Other investments	Other assets and (liabilities)	Total
Balance - January 1, 2020	$ 74,634	$ 4,731	$ 79,365
Total realized and unrealized losses			
Included in net realized and unrealized (losses) gains on investments	(14,156)	—	(14,156)
Included in other (loss) income	—	(2,897)	(2,897)
Total foreign exchange losses	(21)	—	(21)
Purchases	20,962	(611)	20,351
Sales	(8,799)	—	(8,799)
Balance - March 31, 2020	$ 72,620	$ 1,223	$ 73,843

	Other investments		Other assets and (liabilities)		Total	
Balance - January 1, 2019	$	54,545	$	(8,359)	$	46,186
Total realized and unrealized (losses) gains						
Included in net realized and unrealized (losses) gains on investments		(1,111)		—		(1,111)
Included in other (loss) income		—		1,093		1,093
Total foreign exchange losses		(1)		—		(1)
Purchases		10,262		(897)		9,365
Settlements		—		20		20
Amounts acquired (1)		—		19,970		19,970
Balance - March 31, 2019	$	63,695	$	11,827	$	75,522

(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. See “Note 3. Acquisition of Tokio Millennium Re” in the Company’s “Notes to the Consolidated Financial Statements” included in the Company’s Form 10-K for the year ended December 31, 2019 for additional information related to the acquisition of TMR.

Other investments

Private equity investments

Level 3 - At March 31, 2020, the Company’s other investments included a $1.8 million private equity investment which is recorded at fair value, with the fair value obtained through the receipt of an indicative pricing obtained from the insurance manager of the security. The Company considers the price obtained to be unobservable, as there is little, if any, market activity for this security. This unobservable input in isolation can cause significant increases or decreases in fair value. Generally, an increase in the indicative pricing would result in an increase in the fair value of this private equity investment.

Level 3 - At March 31, 2020, the Company’s other investments included $70.8 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 March 31, 2020, the Company had a $1.2 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 March 31, 2020, the Company had a $8.6 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 an internal valuation model. The inputs to the internal valuation model 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 March 31, 2020, the Company had a $11.0 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.

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 March 31, 2020 were debt obligations of $1.1 billion (December 31, 2019 - $1.4 billion). At March 31, 2020, the fair value of the Company's debt obligations was $1.2 billion (December 31, 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 7. 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:

	March 31, 2020	December 31, 2019
Other investments	$ 1,058,714	$ 1,087,377
Other assets	$ 26,442	$ 32,944
Other liabilities	$ 25,219	$ 28,213

Included in net realized and unrealized (losses) gains on investments for the three months ended March 31, 2020 were net unrealized losses of $60.1 million, related to the changes in fair value of other investments (2019 – net unrealized gains of $1.3 million). Included in other (loss) income for the three months ended March 31, 2020 were net unrealized gains of $Nil related to the changes in the fair value of other assets and liabilities (2019 - $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:

At March 31, 2020	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period (Minimum Days)	Redemption Notice Period (Maximum Days)
Private equity investments	$ 167,657	$ 417,393	See below	See below	See below
Senior secured bank loan funds	22,579	7,141	See below	See below	See below
Hedge funds	9,327	—	See below	See below	See below
Total other investments measured using net asset valuations	$ 199,563	$ 424,534			

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 asset classes including U.S. and global leveraged buyouts, mezzanine investments, distressed securities, real estate, and oil, gas and power. 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 March 31, 2020, the Company had $22.6 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 March 31, 2020, the Company had $9.3 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 5. 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 loss recoveries, 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:

	Three months ended	
	March 31, 2020	March 31, 2019
Premiums written		
Direct	$ 147,692	$ 110,968
Assumed	1,878,029	1,453,327
Ceded	(755,913)	(635,264)
Net premiums written	$ 1,269,808	$ 929,031
Premiums earned		
Direct	$ 134,229	$ 89,814
Assumed	1,149,733	765,433
Ceded	(370,864)	(305,219)
Net premiums earned	$ 913,098	$ 550,028
Claims and claim expenses		
Gross claims and claim expenses incurred	$ 747,715	$ 338,119
Claims and claim expenses recovered	(176,761)	(111,084)
Net claims and claim expenses incurred	$ 570,954	$ 227,035

The Company adopted ASU 2016-13 effective January 1, 2020. In assessing an allowance for reinsurance assets, which includes reinsurance balances receivable and reinsurance recoverables, 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 evaluated the valuation allowance under the probability of default and loss given default method. The Company utilizes its internal capital and risk models which uses counterparty ratings from major rating agencies, as well as assessing the current market conditions for the likelihood of default. 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.

At March 31, 2020, the Company's reinsurance recoverable balance was $2.8 billion (December 31, 2019 - $2.8 billion). Of the Company's reinsurance recoverable balance at March 31, 2020, 52.1% is fully collateralized by our reinsurers, 46.0% is recoverable from reinsurers rated A- or higher by major rating agencies and 1.9% is recoverable from reinsurers rated lower than A- by major rating agencies (December 31, 2019 - 57.5%, 41.0% and 1.5%, respectively). The reinsurers with the three largest balances accounted for 15.4%, 8.2% and 7.3%, respectively, of the Company's reinsurance recoverable balance at March 31, 2020 (December 31, 2019 - 12.7%, 7.2% and 7.0%, respectively). The valuation allowance recorded against reinsurance recoverable was $7.3 million at March 31, 2020 (December 31, 2019 - $7.3 million). The three largest company-specific components of the valuation allowance represented 18.1%, 7.9% and 7.2%, respectively, of the Company's total valuation allowance at March 31, 2020 (December 31, 2019 - 18.1%, 7.9% and 7.2%, respectively).

NOTE 6. 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 following table summarizes the Company's claims and claim expense reserves by segment, allocated between case reserves, additional case reserves and IBNR:

At March 31, 2020	Case Reserves	Additional Case Reserves	IBNR	Total
Property	$ 1,095,840	$ 1,707,754	$ 958,827	$ 3,762,421
Casualty and Specialty	1,644,402	105,505	3,894,049	5,643,956
Other	330	—	—	330
Total	$ 2,740,572	$ 1,813,259	$ 4,852,876	$ 9,406,707
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	$ 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:

Three months ended March 31,	2020	2019
Net reserves as of beginning of period	$ 6,593,052	$ 3,704,050
Net incurred related to:		
Current year	557,054	231,341
Prior years	13,900	(4,306)
Total net incurred	570,954	227,035
Net paid related to:		
Current year	31,201	8,149
Prior years	436,286	300,120
Total net paid	467,487	308,269
Amounts acquired (1)	—	1,858,775
Foreign exchange (2)	(55,395)	1,550
Net reserves as of end of period	6,641,124	5,483,141
Reinsurance recoverable as of end of period	2,765,583	2,908,343
Gross reserves as of end of period	$ 9,406,707	$ 8,391,484

(1) Represents the fair value of TMR's reserves for claims and claim expenses, net of reinsurance recoverables, acquired at March 22, 2019.

(2) Reflects the impact of the foreign exchange revaluation of net reserves denominated in non-U.S. dollars as at the balance sheet date.

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 recoverables, 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 development by segment of its liability for unpaid claims and claim expenses:

Three months ended March 31,	2020 (Favorable) adverse development	2019 (Favorable) adverse development
Property	$ 14,008	$ 1,877
Casualty and Specialty	(1)	(6,202)
Other	(107)	19
Total net adverse (favorable) development of prior accident years net claims and claim expenses	$ 13,900	$ (4,306)

Changes to prior year estimated claims reserves decreased net income by $13.9 million during the three months ended March 31, 2020 (2019 - increased net income by $4.3 million), excluding the consideration of changes in reinstatement, adjustment or other premium items, profit commissions, redeemable noncontrolling interests and income tax.

Property Segment

The following tables detail the development of the Company's liability for 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:

Three months ended March 31,	2020 (Favorable) adverse development
Catastrophe net claims and claim expenses	
Large catastrophe events	
2019 Large Loss Events	$ (19,681)
2018 Large Loss Events	(14,200)
2017 Large Loss Events	(6,237)
Other	8,027
Total large catastrophe events	(32,091)
Small catastrophe events and attritional loss movements	
Other small catastrophe events and attritional loss movements	46,099
Total small catastrophe events and attritional loss movements	46,099
Total net adverse development of prior accident years net claims and claim expenses	$ 14,008

The net adverse development of prior accident years net claims and claim expenses within the Company's Property segment in the three months ended March 31, 2020 of $14.0 million was comprised of net adverse development of $54.1 million primarily within the Company's other property class of business and principally driven by higher than expected attritional losses related to lines of business where the Company principally estimates net claims and claim expenses using traditional actuarial methods, combined with the impact of certain of the Company's whole account ceded protections. Partially offsetting this adverse development was favorable development on prior accident years net claims and claim expenses associated with the following large catastrophe events:

- $19.7 million associated with Hurricane Dorian and Typhoon Faxai, Typhoon Hagibis and losses associated with aggregate loss contracts (collectively, the “2019 Large Loss Events”);
- $14.2 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
- $6.2 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”).

Three months ended March 31,	2019 (Favorable) adverse development
Catastrophe net claims and claim expenses	
Large catastrophe events	
2017 Large Loss Events	$ (10,918)
Other	(1,374)
Total large catastrophe events	(12,292)
Small catastrophe events and attritional loss movements	
Other small catastrophe events and attritional loss movements	14,169
Total small catastrophe events and attritional loss movements	14,169
Total catastrophe and attritional net claims and claim expenses	1,877
Total net adverse development of prior accident years net claims and claim expenses	$ 1,877

The net adverse development of prior accident years net claims and claim expenses within the Company’s Property segment in the three months ended March 31, 2019 of $1.9 million was principally comprised of net adverse development of $14.2 million related to small catastrophe events and attritional loss movements and partially offset by net favorable development of $10.9 million related to the 2017 Large Loss Events.

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:

Three months ended March 31,	2020 (Favorable) adverse development	2019 (Favorable) adverse development
Actuarial methods	$ (1)	$ (6,202)
Total net favorable development of prior accident years net claims and claim expenses	$ (1)	$ (6,202)

The net favorable development of prior accident years net claims and claim expenses within the Company’s Casualty and Specialty segment of $1 thousand in the three months ended March 31, 2020 was due to reported losses generally coming in as expected on attritional net claims and claim expenses.

The net favorable development of prior accident years net claims and claim expenses within the Company’s Casualty and Specialty segment was $6.2 million in the three months ended March 31, 2019 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.

NOTE 7. DEBT AND CREDIT FACILITIES

There have been no material changes to the Company's debt obligations and credit facilities as described in its Form 10-K for the year ended December 31, 2019, except as described below.

Debt Obligations

A summary of the Company's debt obligations on its consolidated balance sheets is set forth below:

	March 31, 2020		December 31, 2019	
	Fair Value	Carrying Value	Fair Value	Carrying Value
3.600% Senior Notes due 2029	$ 421,260	$ 391,703	$ 424,920	$ 391,475
3.450% Senior Notes due 2027	317,685	296,415	314,070	296,292
3.700% Senior Notes due 2025	316,560	298,150	318,567	298,057
5.750% Senior Notes due 2020	—	—	251,030	249,931
4.750% Senior Notes due 2025 (DaVinciRe) (1)	145,842	148,427	160,031	148,350
Total debt	$ 1,201,347	$ 1,134,695	$ 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.

5.75% *Senior Notes due 2020 of RenRe North America Holdings Inc. and RenaissanceRe Finance*

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.

Credit Facilities

The outstanding amounts issued or drawn under each of the Company's significant credit facilities is set forth below:

At March 31, 2020	Issued or Drawn
Revolving Credit Facility (1)	$ —
Bilateral Letter of Credit Facilities	
Secured	324,147
Unsecured	373,951
Funds at Lloyd's Letter of Credit Facility	290,000
TMR Letters of Credit (2)	75
	$ 988,173

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

(2) These letters of credit were transferred to the Company in connection with the acquisition of TMR and were terminated during the quarter ended March 31, 2020, except for certain immaterial amounts. Refer to "Note 3. Acquisition of Tokio Millennium Re" in the Company's "Notes to the Consolidated Financial Statements" included in the Company's Form 10-K for the year ended December 31, 2019 for additional information related to the acquisition of TMR.

TMR Letters of Credit

During the quarter ended March 31, 2020, the following letters of credit and facilities that were transferred to the Company in connection with the acquisition of TMR were terminated: (a) certain letters of credit for the account of RenaissanceRe Europe issued by Mizuho Bank, Ltd. pursuant to a Letter of Credit and Reimbursement Agreement, dated as of May 14, 2012, as amended, (b) certain letters of credit for the account of RenaissanceRe Europe issued by The Bank of Tokyo-Mitsubishi UFJ Ltd., Düsseldorf Branch pursuant to a Committed Revolving Standby Letter of Credit Agreement, dated as of September 29, 2017, and (c) certain letters of credit for the account of RenaissanceRe UK issued by The Bank of Tokyo-Mitsubishi UFJ, Ltd. pursuant to a Facility Letter, dated as of December 21, 2006. The parties had previously agreed that no new letters of credit would be issued under these facilities.

NOTE 8. NONCONTROLLING INTERESTS

A summary of the Company's redeemable noncontrolling interests on its consolidated balance sheets is set forth below:

	March 31, 2020	December 31, 2019
Redeemable noncontrolling interest - DaVinciRe	$ 1,533,085	$ 1,435,581
Redeemable noncontrolling interest - Medici	677,283	632,112
Redeemable noncontrolling interest - Vermeer	1,021,478	1,003,615
Redeemable noncontrolling interests	$ 3,231,846	$ 3,071,308

A summary of the Company's redeemable noncontrolling interests on its consolidated statements of operations is set forth below:

	Three months ended	
	March 31, 2020	March 31, 2019
Redeemable noncontrolling interest - DaVinciRe	$ 84,906	$ 62,533
Redeemable noncontrolling interest - Medici	(4,678)	2,481
Redeemable noncontrolling interest - Vermeer	17,863	5,208
Net income attributable to redeemable noncontrolling interests	$ 98,091	$ 70,222

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. 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 March 31, 2020 (December 31, 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 $10.0 million of its shares in DaVinciRe to an existing third-party investor. The Company's noncontrolling economic ownership in DaVinciRe subsequent to these transactions was 21.4%.

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:

	Three months ended	
	March 31, 2020	March 31, 2019
Beginning balance	$ 1,435,581	$ 1,034,946
Redemption of shares from redeemable noncontrolling interest, net of adjustments	2,607	(234)
Sale of shares to redeemable noncontrolling interests	9,991	—
Net income attributable to redeemable noncontrolling interest	84,906	62,533
Ending balance	$ 1,533,085	$ 1,097,245

Redeemable Noncontrolling Interest - RenaissanceRe Medici Fund Ltd.

Medici is an exempted company incorporated under the laws of Bermuda and its objective is to seek to invest substantially all of its assets in various insurance-based investment instruments that have returns primarily tied to property catastrophe risk. 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 the three months ended March 31, 2020, third-party investors subscribed for $54.6 million and redeemed $4.8 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 11.2% at March 31, 2020.

2019

During the three months ended March 31, 2019, third-party investors subscribed for $3.6 million and redeemed $15.9 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 17.1% at March 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:

	Three months ended	
	March 31, 2020	March 31, 2019
Beginning balance	$ 632,112	$ 416,765
Redemption of shares from redeemable noncontrolling interest, net of adjustments	(4,764)	(15,884)
Sale of shares to redeemable noncontrolling interests	54,613	3,596
Net (loss) income attributable to redeemable noncontrolling interest	(4,678)	2,481
Ending balance	$ 677,283	$ 406,958

Redeemable Noncontrolling Interest – Vermeer

Vermeer is an exempted Bermuda reinsurer that 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. The Company maintains majority voting control of Vermeer, while the sole third-party investor, PGGM, retains all of the economic benefits. The Company 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. The portion of Vermeer's earnings owned by PGGM is recorded in the consolidated statements 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.

2019

During the three months ended December 31, 2018, PGGM subscribed for $600.0 million of the participating, non-voting common shares of Vermeer and the Company subscribed for $1 thousand of all the voting, non-participating 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:

	Three months ended	
	March 31, 2020	March 31, 2019
Beginning balance	$ 1,003,615	$ 599,989
Net income attributable to redeemable noncontrolling interest	17,863	5,208
Ending balance	$ 1,021,478	$ 605,197

NOTE 9. VARIABLE INTEREST ENTITIES

Upsilon RFO

Upsilon RFO is a managed joint venture and a Bermuda domiciled SPI that was formed by the Company principally to provide additional capacity to the worldwide aggregate and per-occurrence retrocessional property catastrophe excess of loss market.

The shareholders (other than the Class A shareholder) participate in substantially all of the profits or losses of Upsilon RFO while their shares remain outstanding. The shareholders (other than the Class A shareholder) 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 the 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 the three months ended March 31, 2020, Upsilon RFO returned $81.8 million of capital to its investors, including $29.9 million to the Company. In addition, during the three months ended March 31, 2020, $620.9 million of Upsilon RFO non-voting preference shares were issued to existing investors, including $75.4 million to the Company. At March 31, 2020, the Company's participation in the risks assumed by Upsilon RFO was 14.2%.

At March 31, 2020, the Company's consolidated balance sheet included total assets and total liabilities of Upsilon RFO of $3.4 billion and $3.4 billion, respectively (December 31, 2019 - $3.1 billion and $3.1 billion, respectively).

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 2019 that were received by the Company prior to January 1, 2019 were included in other liabilities on the Company's consolidated balance sheet at December 31, 2018, and in other operating cash flows on the Company's consolidated statements of cash flows for 2018. During 2019, 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, 2019.

Vermeer

Vermeer is an exempted Bermuda reinsurer that provides capacity focused on risk remote layers in the U.S. property catastrophe market. Vermeer is considered a VIE as it has voting rights that are not proportional to its participating rights. The Company is the primary beneficiary of Vermeer as it has power over the activities that most significantly impact the economic performance of Vermeer and has the obligation to absorb expected losses and the right to receive expected benefits that could be significant to Vermeer, in accordance with the accounting guidance. The portion of Vermeer's earnings owned by PGGM is recorded in the consolidated statements of operations as net income attributable to redeemable noncontrolling interests. See "Note 8. Noncontrolling Interests" for additional information regarding Vermeer. Other than the Company's minimal equity investment, it has not provided any financial or other support to Vermeer that it was not contractually required to provide.

At March 31, 2020, the Company's consolidated balance sheet included total assets and total liabilities of Vermeer of $1.0 billion and $27.3 million, respectively (December 31, 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 $1.0 billion at March 31, 2020 (December 31, 2019 - $1.0 billion).

Mona Lisa Re

Mona Lisa Re is licensed as a Bermuda domiciled SPI to provide 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.

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 is not the primary beneficiary of Mona Lisa Re as it does not have power over the activities that most significantly impact the economic performance of Mona Lisa Re. As a result, the financial position and results of operations of Mona Lisa Re are not consolidated by the Company.

On July 6, 2018, all previously outstanding series of notes issued by Mona Lisa Re were redeemed and the proceeds were returned to the holders of such notes. Effective January 10, 2020, Mona Lisa Re issued two series of principal-at-risk variable rate notes to investors for a total principal amount of $400.0 million. At March 31, 2020, the total assets and total liabilities of Mona Lisa Re were $424.7 million and $424.7 million, respectively (2019 - $6 thousand and $6 thousand, respectively).

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.

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 $2.9 million at March 31, 2020.

Renaissance Reinsurance and DaVinci have together entered into ceded reinsurance contracts with Mona Lisa Re with gross premiums ceded of $29.2 million and $7.3 million, respectively, during the three months ended March 31, 2020 (2019 - $Nil and $Nil, respectively). In addition, Renaissance Reinsurance and DaVinci recognized ceded premiums earned related to the ceded reinsurance contracts with Mona Lisa Re of $7.3 million and $1.8 million, respectively, during the three months ended March 31, 2020 (2019 - $Nil and $Nil, respectively).

Fibonacci Re

Fibonacci Re, a Bermuda-domiciled SPI, was formed to provide collateralized capacity to Renaissance Reinsurance and its affiliates. Upon issuance of a series of notes by Fibonacci 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 underlying such series of notes. The outstanding principal amount of each series of notes generally is expected to 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 is expected to 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. RUM receives an origination and structuring fee in connection with the formation and operation of Fibonacci Re.

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 will be recorded in the Company's consolidated financial statements will be 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.

The fair value of the Company's investment in the participating notes of Fibonacci Re is included in other investments. Net of third-party investors, the fair value of the Company's investment in Fibonacci Re was $0.4 million at March 31, 2020 (December 31, 2019 - $0.4 million).

Renaissance Reinsurance entered into ceded reinsurance contracts with Fibonacci Re with ceded premiums written of $Nil and ceded premiums earned of $Nil during the three months ended March 31, 2020 (2019 - $6 thousand and $6 thousand, respectively). During the three months ended March 31, 2020, Renaissance Reinsurance reduced its net claims and claim expenses ceded to Fibonacci by $1.1 million (2019 - ceded net claims and claim expenses of $7.5 million) and as of March 31, 2020 had a net reinsurance recoverable of $6.4 million from Fibonacci Re (December 31, 2019 - $7.5 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 March 31, 2020 the Company has invested $1.8 million in Langhorne Holdings

(December 31, 2019 - $1.7 million), a company that owns and manages certain reinsurance entities within Langhorne. In addition, as of March 31, 2020 the Company has invested $0.1 million in Langhorne Partners (December 31, 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. See “Note 3. Acquisition of Tokio Millennium Re” in the Company’s “Notes to the Consolidated Financial Statements” included in the Company’s Form 10-K for the year ended December 31, 2019 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 formerly managed by TMR. Following the closing of the acquisition, the retrocessionaires providing reinsurance to TMR on certain of the TMR managed third-party capital vehicles’ legacy portfolios of in-force and expired contracts were replaced. The maximum remaining exposure of each segregated account is fully collateralized and is funded by cash and term deposits 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.

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

A subsidiary of RenaissanceRe Europe that the Company acquired in the acquisition of TMR manages Norwood Re. See “Note 3. Acquisition of Tokio Millennium Re” in the Company’s “Notes to the Consolidated Financial Statements” included in the Company’s Form 10-K for the year ended December 31, 2019 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 - RenaissanceRe Europe 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 will expire no later than May 31, 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 10. SHAREHOLDERS' EQUITY

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, and the Company paid the dividends on March 31, 2020.

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 is 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). 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 the three months ended March 31, 2020, the Company paid $9.1 million in preference share dividends (2019 - $9.2 million) and $15.4 million in common share dividends (2019 - $14.5 million).

Series C 6.08% Preference Shares Redemption

In February 2020, RenaissanceRe announced a redemption of all 5 million of its outstanding Series C 6.08% Preference Shares. The Series C 6.08% Preference Shares were redeemed on March 26, 2020 for $125.0 million plus accrued and unpaid dividends thereon. Following the redemption, no Series C 6.08% Preference Shares remain outstanding.

Common Shares

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. See "Note 3. Acquisition of Tokio Millennium Re" in the Company's "Notes to the Consolidated Financial Statements" included in the Company's Form 10-K for the year ended December 31, 2019 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.

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 November 10, 2017, 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 the first quarter of 2020, the Company repurchased 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. At March 31, 2020, $437.4 million remained available for repurchase under the share repurchase program. Given the current economic environment and to preserve capital for both risk and opportunity, the Company suspended share repurchases in March 2020. The Company has not engaged in any share repurchase activity during April 2020 or May 2020 to date. In the near term, the Company intends to prioritize capital for deployment into its business; however, we may resume repurchases at any time when we believe it is prudent to do so and without further notice.

NOTE 11. EARNINGS PER SHARE

The following table sets forth the computation of basic and diluted earnings per common share:

	Three months ended	
(common shares in thousands)	March 31, 2020	March 31, 2019
Numerator:		
Net (loss) income (attributable) available to RenaissanceRe common shareholders	$ (81,974)	$ 273,717
Amount allocated to participating common shareholders (1)	(146)	(3,121)
Net (loss) income allocated to RenaissanceRe common shareholders	$ (82,120)	$ 270,596
Denominator:		
Denominator for basic (loss) income per RenaissanceRe common share - weighted average common shares	43,441	42,065
Per common share equivalents of employee stock options and non-vested shares	—	26
Denominator for diluted (loss) income per RenaissanceRe common share - adjusted weighted average common shares and assumed conversions	43,441	42,091
Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share – basic	$ (1.89)	$ 6.43
Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share – diluted	$ (1.89)	$ 6.43

(1) Represents earnings and dividends attributable to holders of unvested shares issued pursuant to the Company's stock compensation plans.

NOTE 12. 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 joint ventures 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 joint ventures 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, certain expenses related to acquisitions and the remnants of its former Bermuda-based insurance operations.

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:

Three months ended March 31, 2020	Property	Casualty and Specialty	Other	Total
Gross premiums written	$ 1,220,526	$ 805,195	$ —	$ 2,025,721
Net premiums written	$ 674,581	$ 595,227	$ —	$ 1,269,808
Net premiums earned	$ 421,335	$ 491,763	$ —	$ 913,098
Net claims and claim expenses incurred	144,852	426,209	(107)	570,954
Acquisition expenses	85,351	125,253	—	210,604
Operational expenses	44,007	23,454	—	67,461
Underwriting income (loss)	$ 147,125	$ (83,153)	$ 107	64,079
Net investment income			99,473	99,473
Net foreign exchange losses			(5,728)	(5,728)
Equity in earnings of other ventures			4,564	4,564
Other loss			(4,436)	(4,436)
Net realized and unrealized losses on investments			(110,707)	(110,707)
Corporate expenses			(15,991)	(15,991)
Interest expense			(14,927)	(14,927)
Income before taxes				16,327
Income tax benefit			8,846	8,846
Net income attributable to redeemable noncontrolling interests			(98,091)	(98,091)
Dividends on preference shares			(9,056)	(9,056)
Net loss attributable to RenaissanceRe common shareholders				$ (81,974)
Net claims and claim expenses incurred – current accident year	$ 130,844	$ 426,210	$ —	$ 557,054
Net claims and claim expenses incurred – prior accident years	14,008	(1)	(107)	13,900
Net claims and claim expenses incurred – total	$ 144,852	$ 426,209	$ (107)	$ 570,954
Net claims and claim expense ratio – current accident year	31.1%	86.7%		61.0%
Net claims and claim expense ratio – prior accident years	3.3%	—%		1.5%
Net claims and claim expense ratio – calendar year	34.4%	86.7%		62.5%
Underwriting expense ratio	30.7%	30.2%		30.5%
Combined ratio	65.1%	116.9%		93.0%

Three months ended March 31, 2019	Property	Casualty and Specialty	Other	Total
Gross premiums written	$ 1,032,384	$ 531,911	$ —	$ 1,564,295
Net premiums written	$ 564,230	$ 364,801	$ —	$ 929,031
Net premiums earned	$ 290,745	$ 259,283	$ —	$ 550,028
Net claims and claim expenses incurred	56,083	170,933	19	227,035
Acquisition expenses	53,739	70,212	—	123,951
Operational expenses	28,544	16,389	—	44,933
Underwriting income (loss)	$ 152,379	$ 1,749	$ (19)	154,109
Net investment income			82,094	82,094
Net foreign exchange losses			(2,846)	(2,846)
Equity in earnings of other ventures			4,661	4,661
Other income			3,171	3,171
Net realized and unrealized gains on investments			170,013	170,013
Corporate expenses			(38,789)	(38,789)
Interest expense			(11,754)	(11,754)
Income before taxes				360,659
Income tax expense			(7,531)	(7,531)
Net income attributable to redeemable noncontrolling interests			(70,222)	(70,222)
Dividends on preference shares			(9,189)	(9,189)
Net income available to RenaissanceRe common shareholders				$ 273,717
Net claims and claim expenses incurred – current accident year	$ 54,206	$ 177,135	$ —	$ 231,341
Net claims and claim expenses incurred – prior accident years	1,877	(6,202)	19	(4,306)
Net claims and claim expenses incurred – total	$ 56,083	$ 170,933	$ 19	$ 227,035
Net claims and claim expense ratio – current accident year	18.6%	68.3 %		42.1 %
Net claims and claim expense ratio – prior accident years	0.7%	(2.4)%		(0.8)%
Net claims and claim expense ratio – calendar year	19.3%	65.9 %		41.3 %
Underwriting expense ratio	28.3%	33.4 %		30.7 %
Combined ratio	47.6%	99.3 %		72.0 %

NOTE 13. 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. Commencing in the second quarter of 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.

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 March 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	$ 139	$ (789)	$ 928	Other assets	$ —	$ 928
Foreign currency forward contracts (1)	17,824	2,416	15,408	Other assets	—	15,408
Foreign currency forward contracts (2)	6,645	439	6,206	Other assets	—	6,206
Credit default swaps	30	—	30	Other assets	—	30
Total derivative instruments not designated as hedges	24,638	2,066	22,572		—	22,572
Derivative instruments designated as hedges						
Foreign currency forward contracts (3)	4,154	—	4,154	Other assets	—	4,154
Total	$ 28,792	$ 2,066	$ 26,726		$ —	$ 26,726

At March 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	$ 1,654	$ (789)	$ 2,443	Other liabilities	$ 2,443	$ —
Interest rate swaps	114	—	114	Other assets	114	—
Foreign currency forward contracts (1)	9,700	4,810	4,890	Other liabilities	—	4,890
Foreign currency forward contracts (2)	440	439	1	Other liabilities	—	1
Credit default swaps	332	—	332	Other assets	332	—
Total return swaps	17,767	—	17,767	Other assets	17,767	—
Equity futures	813	—	813	Other liabilities	813	—
Total derivative instruments not designated as hedges	30,820	4,460	26,360		21,469	4,891
Derivative instruments designated as hedges						
Foreign currency forward contracts (3)	—	1,489	(1,489)	Other liabilities	—	(1,489)
Total	$ 30,820	$ 5,949	$ 24,871		$ 21,469	$ 3,402

(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.

At December 31, 2019	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	$ 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

At December 31, 2019	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	$ 1,545	$ 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.

See “Note 3. 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:

	Location of gain (loss) recognized on derivatives	Amount of gain (loss) recognized on derivatives	
Three months ended March 31,		**2020**	**2019**
Derivative instruments not designated as hedges			
Interest rate futures	Net realized and unrealized (losses) gains on investments	$ 88,006	$ 6,056
Interest rate swaps	Net realized and unrealized (losses) gains on investments	2,107	349
Foreign currency forward contracts (1)	Net foreign exchange losses	(330)	4,442
Foreign currency forward contracts (2)	Net foreign exchange losses	6,400	1,145
Credit default swaps	Net realized and unrealized (losses) gains on investments	(4,897)	4,410
Total return swaps	Net realized and unrealized (losses) gains on investments	(21,137)	534
Equity futures	Net realized and unrealized (losses) gains on investments	(30,898)	2,447
Total derivative instruments not designated as hedges		39,251	19,383
Derivative instruments designated as hedges			
Foreign currency forward contracts (3)	Accumulated other comprehensive loss	10,844	—
Total		$ 50,095	$ 19,383

(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 March 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 March 31, 2020, the Company had $2.2 billion of notional long positions and $935.7 million of notional short positions of primarily Eurodollar and U.S. treasury futures contracts (December 31, 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 March 31, 2020, the Company had $2.0 million of notional positions paying a fixed rate and $25.5 million receiving a fixed rate denominated in U.S. dollar swap contracts (December 31, 2019 - $27.9 million and $25.5 million, respectively).

Foreign Currency Derivatives

The Company's reporting currency is the U.S. dollar. In addition, the functional currency of the Company, and the majority of the Company's subsidiaries, is the U.S. dollar. However, 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 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. The Company's 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 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 March 31, 2020, the Company had outstanding underwriting related foreign currency contracts of $502.4 million in notional long positions and $651.5 million in notional short positions, denominated in U.S. dollars (December 31, 2019 - $722.6 million and $1.2 billion, 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 March 31, 2020, the Company had outstanding investment portfolio related foreign currency contracts of $384.8 million in notional long positions and $255.5 million in notional short positions, denominated in U.S. dollars (December 31, 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's 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 March 31, 2020, the Company had outstanding credit default swaps of $0.5 million in notional positions to hedge credit risk and $117.1 million in notional positions to assume credit risk, denominated in U.S. dollars (December 31, 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 March 31, 2020, the

Company had $173.5 million of notional long positions (long credit) and $Nil of notional short positions (short credit), denominated in U.S. dollars (December 31, 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 March 31, 2020, the Company had $50.4 million notional long position and $Nil notional short position of equity futures, denominated in U.S. dollars (December 31, 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, including RenaissanceRe Europe, Australia Branch, which has an Australian dollar functional currency. The Company has entered into foreign exchange forwards to hedge the Australian dollar net investment in foreign operations, on an after-tax basis, from changes in the exchange rate between the U.S. dollar and the Australian dollar.

The Company utilizes foreign exchange forward contracts to hedge the fair value of its net investment in a foreign operation. During 2020 and 2019, the Company entered into foreign exchange forward contracts that were formally designated as hedges of its investment in RenaissanceRe Europe, Australia Branch. 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:

	Three months ended	
	March 31, 2020	March 31, 2019
Weighted average of U.S. dollar equivalent of foreign denominated net assets	$ 76,804	$ —
Derivative gains (1)	$ 10,844	$ —

(1) Derivative 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 loss on the Company's consolidated statements of changes in shareholders' equity.

NOTE 14. COMMITMENTS, CONTINGENCIES AND OTHER ITEMS

There are no material changes from the commitments, contingencies and other items previously disclosed in the Company's Form 10-K for the year ended December 31, 2019.

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 15. ASSETS AND LIABILITIES HELD FOR SALE

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 is subject to regulatory approval and is expected to close in 2020. The estimated purchase price was calculated based on preliminary book value. The ultimate purchase price will be determined following receipt of regulatory approval, based on the closing book value. The Company classified the assets and liabilities of RenaissanceRe UK as held for sale. The financial results of RenaissanceRe UK are recorded in the Company's consolidated statements of operations as part of net (loss) income (attributable) available to RenaissanceRe common shareholders for the three months ended March 31, 2020. The underwriting activities of RenaissanceRe UK are principally all within the Company's Casualty and Specialty segment.

The carrying value of the major classes of assets and liabilities held for sale at March 31, 2020 and December 31, 2019 are as follows:

	March 31, 2020	December 31, 2019
Assets of RenaissanceRe UK held for sale		
Total investments	$ 440,418	$ 458,731
Other assets	24,165	40,284
Total assets held for sale	$ 464,583	$ 499,015
Liabilities of RenaissanceRe UK held for sale		
Reserve for claims and claim expenses	$ 175,506	$ 199,436
Other liabilities	2,863	925
Total liabilities held for sale	$ 178,369	$ 200,361

NOTE 16. 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 March 31, 2020 and December 31, 2019, condensed consolidating statements of operations and condensed consolidating statements of comprehensive income for the three months ended March 31, 2020 and 2019, and condensed consolidating statements of cash flows for the three months ended March 31, 2020 and 2019. RenaissanceRe Finance Inc. 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 8. Debt and Credit Facilities" in the "Notes to the Consolidated Financial Statements" in the Company's Form 10-K for the year ended December 31, 2019 and "Note 7. Debt and Credit Facilities" in the "Notes to the Consolidated Financial Statements" included herein.

Condensed Consolidating Balance Sheet at March 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	$ 275,173	$ 24,564	$ 17,518,860	$ —	$ 17,818,597
Cash and cash equivalents	3,066	16,089	877,061	—	896,216
Investments in subsidiaries	5,017,427	1,392,419	641,103	(7,050,949)	—
Due from subsidiaries and affiliates	11,712	—	(11,712)	—	—
Premiums receivable	—	—	3,105,441	—	3,105,441
Prepaid reinsurance premiums	—	—	1,151,926	—	1,151,926
Reinsurance recoverable	—	—	2,765,583	—	2,765,583
Accrued investment income	—	43	73,453	—	73,496
Deferred acquisition costs	—	—	739,875	—	739,875
Receivable for investments sold	2,186	—	339,600	—	341,786
Other assets	784,513	9,937	300,107	(782,034)	312,523
Goodwill and other intangible assets	115,186	—	144,890	—	260,076
Total assets	$ 6,209,263	$ 1,443,052	$ 27,646,187	$ (7,832,983)	$ 27,465,519
Liabilities, Noncontrolling Interests and Shareholders' Equity					
Liabilities					
Reserve for claims and claim expenses	$ —	$ —	$ 9,406,707	$ —	$ 9,406,707
Unearned premiums	—	—	3,245,914	—	3,245,914
Debt	483,203	721,867	711,040	(781,415)	1,134,695
Amounts due to subsidiaries and affiliates	21,756	117,770	(139,526)	—	—
Reinsurance balances payable	—	—	3,775,375	—	3,775,375
Payable for investments purchased	1,100	—	635,036	—	636,136
Other liabilities	19,678	11,366	1,534,530	(1,214,254)	351,320
Total liabilities	525,737	851,003	19,169,076	(1,995,669)	18,550,147
Redeemable noncontrolling interests	—	—	3,231,846	—	3,231,846
Shareholders' Equity					
Total shareholders' equity	5,683,526	592,049	5,245,265	(5,837,314)	5,683,526
Total liabilities, noncontrolling interests and shareholders' equity	$ 6,209,263	$ 1,443,052	$ 27,646,187	$ (7,832,983)	$ 27,465,519

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.
(2) Includes Parent 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, 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 and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Operations for the three months ended March 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	$ —	$ —	$ 913,098	$ —	$ 913,098
Net investment income	10,488	883	98,542	(10,440)	99,473
Net foreign exchange (losses) gains	(7,330)	—	1,602	—	(5,728)
Equity in earnings of other ventures	—	389	4,175	—	4,564
Other income (loss)	372	—	11,073	(15,881)	(4,436)
Net realized and unrealized (losses) gains on investments	(21,118)	116	(89,705)	—	(110,707)
Total revenues	(17,588)	1,388	938,785	(26,321)	896,264
Expenses					
Net claims and claim expenses incurred	—	—	570,954	—	570,954
Acquisition expenses	—	—	210,604	—	210,604
Operational expenses	2,732	17,318	62,919	(15,508)	67,461
Corporate expenses	8,679	—	7,312	—	15,991
Interest expense	3,828	9,969	11,517	(10,387)	14,927
Total expenses	15,239	27,287	863,306	(25,895)	879,937
(Loss) income before equity in net (loss) income of subsidiaries and taxes	(32,827)	(25,899)	75,479	(426)	16,327
Equity in net (loss) income of subsidiaries	(39,673)	(33,669)	16,639	56,703	—
(Loss) income before taxes	(72,500)	(59,568)	92,118	56,277	16,327
Income tax (expense) benefit	(418)	2,186	7,078	—	8,846
Net (loss) income	(72,918)	(57,382)	99,196	56,277	25,173
Net income attributable to redeemable noncontrolling interests	—	—	(98,091)	—	(98,091)
Net (loss) income attributable to RenaissanceRe	(72,918)	(57,382)	1,105	56,277	(72,918)
Dividends on preference shares	(9,056)	—	—	—	(9,056)
Net (loss) income (attributable) available to RenaissanceRe common shareholders	$ (81,974)	$ (57,382)	$ 1,105	$ 56,277	$ (81,974)

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.
(2) Includes Parent Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Comprehensive (Loss) Income for the three months ended March 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 (loss) income					
Net (loss) income	$ (72,918)	$ (57,382)	$ 99,196	$ 56,277	$ 25,173
Change in net unrealized gains on investments, net of tax	(657)	745	(14,562)	13,817	(657)
Foreign currency translation adjustments, net of tax	932	—		—	932
Comprehensive (loss) income	(72,643)	(56,637)	84,634	70,094	25,448
Net income attributable to redeemable noncontrolling interests	—	—	(98,091)	—	(98,091)
Comprehensive income attributable to noncontrolling interests	—	—	(98,091)	—	(98,091)
Comprehensive (loss) income attributable to RenaissanceRe	$ (72,643)	$ (56,637)	$ (13,457)	$ 70,094	$ (72,643)

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.
(2) Includes Parent Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Operations for the year ended March 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
Revenues					
Net premiums earned	$ —	$ —	$ 550,028	$ —	$ 550,028
Net investment income	8,277	2,060	80,559	(8,802)	82,094
Net foreign exchange losses	(1)	—	(2,845)	—	(2,846)
Equity in earnings of other ventures	—	965	3,696	—	4,661
Other income	—	—	3,171	—	3,171
Net realized and unrealized gains on investments	1,002	109	168,902	—	170,013
Total revenues	9,278	3,134	803,511	(8,802)	807,121
Expenses					
Net claims and claim expenses incurred	—	—	227,035	—	227,035
Acquisition expenses	—	—	123,951	—	123,951
Operational expenses	469	12,333	42,620	(10,489)	44,933
Corporate expenses	38,828	—	(1,922)	1,883	38,789
Interest expense	1,883	9,252	619	—	11,754
Total expenses	41,180	21,585	392,303	(8,606)	446,462
(Loss) income before equity in net income of subsidiaries and taxes	(31,902)	(18,451)	411,208	(196)	360,659
Equity in net income of subsidiaries	314,887	33,532	828	(349,247)	—
Income before taxes	282,985	15,081	412,036	(349,443)	360,659
Income tax (expense) benefit	(79)	1,662	(9,114)	—	(7,531)
Net income	282,906	16,743	402,922	(349,443)	353,128
Net income attributable to redeemable noncontrolling interests	—	—	(70,222)	—	(70,222)
Net income attributable to RenaissanceRe	282,906	16,743	332,700	(349,443)	282,906
Dividends on preference shares	(9,189)	—	—	—	(9,189)
Net income available to RenaissanceRe common shareholders	$ 273,717	$ 16,743	$ 332,700	$ (349,443)	$ 273,717

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.
(2) Includes Parent Guarantor and Subsidiary Issuer consolidating adjustments.

Condensed Consolidating Statement of Comprehensive Income for the three months ended March 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
Comprehensive income					
Net income	$ 282,906	$ 16,743	$ 402,922	$ (349,443)	$ 353,128
Change in net unrealized losses on investments	—	—	(37)	—	(37)
Comprehensive income	282,906	16,743	402,885	(349,443)	353,091
Net income attributable to redeemable noncontrolling interests	—	—	(70,222)	—	(70,222)
Comprehensive income attributable to noncontrolling interests	—	—	(70,222)	—	(70,222)
Comprehensive income attributable to RenaissanceRe	$ 282,906	$ 16,743	$ 332,663	$ (349,443)	$ 282,869

(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 three months ended March 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 provided by (used in) operating activities				
Net cash provided by (used in) operating activities	$ 6,839	$ (21,068)	$ 489,695	$ 475,466
Cash flows provided by (used in) investing activities				
Proceeds from sales and maturities of fixed maturity investments trading	—	2,493	3,658,801	3,661,294
Purchases of fixed maturity investments trading	—	(17,602)	(3,352,792)	(3,370,394)
Net purchases of equity investments trading	—	—	(44,514)	(44,514)
Net (purchases) sales of short term investments	(85,628)	278,258	(896,856)	(704,226)
Net purchases of other investments	—	—	(79,711)	(79,711)
Net purchases of investments in other ventures	—	—	(1,888)	(1,888)
Return of investment from investments in other ventures	—	—	9,157	9,157
Dividends and return of capital from subsidiaries	216,243	—	(216,243)	—
Contributions to subsidiaries	(64,952)	—	64,952	—
Due to (from) subsidiary	126,320	15,277	(141,597)	—
Net cash provided by (used in) investing activities	191,983	278,426	(1,000,691)	(530,282)
Cash flows (used in) provided by financing activities				
Dividends paid – RenaissanceRe common shares	(15,359)	—	—	(15,359)
Dividends paid – preference shares	(9,056)	—	—	(9,056)
RenaissanceRe common share repurchases	(62,621)	—	—	(62,621)
Redemption of 6.08% Series C preference shares	(125,000)	—	—	(125,000)
Repayment of debt	—	(250,000)	—	(250,000)
Net third party redeemable noncontrolling interest share transactions	—	—	42,599	42,599
Taxes paid on withholding shares	(10,180)	—	—	(10,180)
Net cash (used in) provided by financing activities	(222,216)	(250,000)	42,599	(429,617)
Effect of exchange rate changes on foreign currency cash	—	—	1,581	1,581
Net (decrease) increase in cash and cash equivalents	(23,394)	7,358	(466,816)	(482,852)
Cash and cash equivalents, beginning of period	26,460	8,731	1,343,877	1,379,068
Cash and cash equivalents, end of period	$ 3,066	$ 16,089	$ 877,061	$ 896,216

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

Condensed Consolidating Statement of Cash Flows for the three months ended March 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	$ (317,296)	$ (21,202)	$ 715,647	$ 377,149
Cash flows provided by (used in) investing activities				
Proceeds from sales and maturities of fixed maturity investments trading	277,030	29,861	4,293,917	4,600,808
Purchases of fixed maturity investments trading	(35,909)	(14,098)	(3,469,270)	(3,519,277)
Net purchases of equity investments trading	—	—	(4,601)	(4,601)
Net purchases of short term investments	(54,622)	(4,946)	(1,315,064)	(1,374,632)
Net purchases of other investments	—	—	(51,811)	(51,811)
Net purchases of investment in other venture	—	—	(1,573)	(1,573)
Return of investment from investment in other ventures	—	—	11,250	11,250
Dividends and return of capital from subsidiaries	487,264	—	(487,264)	—
Contributions to subsidiaries	(528,416)	—	528,416	—
Due (from) to subsidiaries	2,100	6,629	(8,729)	—
Net purchase of TMR	—	—	(276,206)	(276,206)
Net cash provided by (used in) investing activities	147,447	17,446	(780,935)	(616,042)
Cash flows provided by (used in) financing activities				
Dividends paid – RenaissanceRe common shares	(14,469)	—	—	(14,469)
Dividends paid – preference shares	(9,189)	—	—	(9,189)
Drawdown of RenaissanceRe Revolving Credit Facility	200,000	—	—	200,000
Net third party redeemable noncontrolling interest share transactions	—	—	(16,847)	(16,847)
Taxes paid on withholding shares	(6,957)	—	—	(6,957)
Net cash provided by (used in) financing activities	169,385	—	(16,847)	152,538
Effect of exchange rate changes on foreign currency cash	—	—	(292)	(292)
Net decrease in cash and cash equivalents	(464)	(3,756)	(82,427)	(86,647)
Cash and cash equivalents, beginning of period	3,534	9,604	1,094,784	1,107,922
Cash and cash equivalents, end of period	$ 3,070	$ 5,848	$ 1,012,357	$ 1,021,275

(1) Includes all other subsidiaries of RenaissanceRe Holdings Ltd. and eliminations.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following is a discussion and analysis of our results of operations for the three months ended March 31, 2020 and 2019, respectively, as well as our liquidity and capital resources at March 31, 2020. This discussion and analysis should be read in conjunction with the unaudited consolidated financial statements and notes thereto included in this filing and the audited consolidated financial statements and notes thereto contained in our Form 10-K for the fiscal year ended December 31, 2019.

On March 22, 2019, we acquired RenaissanceRe Europe AG (formerly known as Tokio Millennium Re AG) ("RenaissanceRe Europe"), RenaissanceRe (UK) Limited (formerly known as Tokio Millennium Re (UK) Limited) ("RenaissanceRe UK"), and their respective subsidiaries (collectively, "TMR"), and our results of operations and financial condition include TMR from the acquisition date. The operating activities of TMR from the acquisition date through March 31, 2019 were not material to us and, as a result, were not included in our consolidated statements of operations for the three months ended March 31, 2019. The following discussion and analysis of our results of operations for the three months ended March 31, 2020 compared to the three months ended March 31, 2019 should be read in that context.

Refer to "Note 3. Acquisition of Tokio Millennium Re" in our "Notes to the Consolidated Financial Statements" included in our Form 10-K for the year ended December 31, 2019 for additional information with respect to the acquisition of TMR.

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."

In this Form 10-Q, 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-Q are in U.S. dollars unless otherwise indicated.

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

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

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, RenaissanceRe UK, Renaissance Reinsurance of Europe Unlimited Company ("Renaissance Reinsurance of Europe") and RenaissanceRe Syndicate 1458 ("Syndicate 1458"). We also underwrite reinsurance on behalf of joint ventures, including DaVinci Reinsurance Ltd. ("DaVinci"), Fibonacci Reinsurance Ltd. ("Fibonacci Re"), 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.

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 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 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. We also pursue a number of other opportunities through our ventures unit, which has responsibility for creating and managing our joint ventures, 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 the acquisition of, or the investment in, other companies or books of business of other companies.

To best serve our clients in the places they do business, we have operating subsidiaries, branches, joint ventures and underwriting platforms around the world, including DaVinci, Fibonacci Re, Renaissance Reinsurance, Top Layer Re, Upsilon RFO and Vermeer in Bermuda, Renaissance Reinsurance U.S. in the U.S., Syndicate 1458 in the U.K. and RenaissanceRe Europe in Switzerland, which has branches in Australia, Bermuda, the U.K. and the U.S. We write property and casualty and specialty reinsurance through our wholly owned operating subsidiaries, joint ventures and Syndicate 1458 and certain insurance products primarily through Syndicate 1458. 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.

Since 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 such 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. 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. We view our exposure to casualty and specialty lines of business as an efficient use of capital given these risks are generally less correlated with our property lines of business. This has allowed 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, 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 Holdings Ltd. ("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.

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 joint ventures 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. 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, certain expenses related to acquisitions and the remnants of our former Bermuda-based insurance operations.

Ventures

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

New Business

From time to time we consider diversification into new ventures, either through organic growth, the formation of new joint ventures, or the acquisition of or the 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, in order for us to seek to model estimated probabilities of losses and returns in respect of our then current portfolio of risks.

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.

SUMMARY OF CRITICAL ACCOUNTING ESTIMATES

Our critical accounting estimates include “Claims and Claim Expense Reserves,” “Premiums and Related Expenses,” “Reinsurance Recoverables,” “Fair Value Measurements and Impairments” and “Income Taxes,” and are discussed in Management’s Discussion and Analysis of Financial Condition and Results of Operations in our Form 10-K for the year ended December 31, 2019. There have been no material changes to our critical accounting estimates as disclosed in our Form 10-K for the year ended December 31, 2019.

SUMMARY OF RESULTS OF OPERATIONS

Below is a discussion of the results of operations for the first quarter of 2020, compared to the first quarter of 2019.

Three months ended March 31,	2020	2019	Change
(in thousands, except per share amounts and percentages)			
Statement of operations highlights			
Gross premiums written	$ 2,025,721	$ 1,564,295	$ 461,426
Net premiums written	$ 1,269,808	$ 929,031	$ 340,777
Net premiums earned	$ 913,098	$ 550,028	$ 363,070
Net claims and claim expenses incurred	570,954	227,035	343,919
Acquisition expenses	210,604	123,951	86,653
Operational expenses	67,461	44,933	22,528
Underwriting income	$ 64,079	$ 154,109	$ (90,030)
Net investment income	$ 99,473	$ 82,094	$ 17,379
Net realized and unrealized (losses) gains on investments	(110,707)	170,013	(280,720)
Total investment result	$ (11,234)	$ 252,107	$ (263,341)
Net income	$ 25,173	$ 353,128	$ (327,955)
Net (loss) income (attributable) available to RenaissanceRe common shareholders	$ (81,974)	$ 273,717	$ (355,691)
Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share – diluted	$ (1.89)	$ 6.43	$ (8.32)
Dividends per common share	$ 0.35	$ 0.34	$ 0.01
Key ratios			
Net claims and claim expense ratio – current accident year	61.0 %	42.1 %	18.9 %
Net claims and claim expense ratio – prior accident years	1.5 %	(0.8)%	2.3 %
Net claims and claim expense ratio – calendar year	62.5 %	41.3 %	21.2 %
Underwriting expense ratio	30.5 %	30.7 %	(0.2)%
Combined ratio	93.0 %	72.0 %	21.0 %
Return on average common equity - annualized	(6.3)%	23.5 %	(29.8)%
Book value	March 31, 2020	December 31, 2019	Change
Book value per common share	$ 117.15	$ 120.53	$ (3.38)
Accumulated dividends per common share	21.03	20.68	0.35
Book value per common share plus accumulated dividends	$ 138.18	$ 141.21	$ (3.03)
Change in book value per common share plus change in accumulated dividends	(2.5)%		

Net loss attributable to RenaissanceRe common shareholders was $82.0 million in the first quarter of 2020, compared to net income available to RenaissanceRe common shareholders of $273.7 million in the first quarter of 2019, a decrease of $355.7 million. As a result of our net loss attributable to RenaissanceRe common shareholders in the first quarter of 2020, we generated an annualized return on average common equity of negative 6.3% and our book value per common share decreased from $120.53 at December 31, 2019 to $117.15 at March 31, 2020, a 2.5% decrease, after considering the change in accumulated dividends paid to our common shareholders.

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

- *Underwriting Results* - we generated underwriting income of $64.1 million and a combined ratio of 93.0% in the first quarter of 2020, compared to $154.1 million and 72.0%, respectively in the first quarter of 2019. Our underwriting income in the first quarter of 2020 was comprised of our Property segment, which generated underwriting income of $147.1 million and had a combined ratio of 65.1%, partially offset by our Casualty and Specialty segment, which generated an underwriting loss of $83.2 million and had a combined ratio of 116.9%. The Casualty and Specialty segment was principally impacted by net claims and claim expenses associated with the COVID-19 pandemic of $103.8 million, which added 21.1 percentage points to the Casualty and Specialty segment combined ratio. The losses primarily represent the cost of claims incurred but not yet reported, with respect to exposures such as event contingency and event-based casualty covers. In comparison, our underwriting income in the first quarter of 2019 was comprised of our Property segment, which generated underwriting income of $152.4 million, and our Casualty and Specialty segment, which generated underwriting income of $1.7 million;
- *Gross Premiums Written* - our gross premiums written increased by $461.4 million, or 29.5%, to $2.0 billion, in the first quarter of 2020, compared to the first quarter of 2019. This was comprised of an increase of $273.3 million in our Casualty and Specialty segment and an increase of $188.1 million in our Property segment, driven by growth from existing relationships, new opportunities across a number of our underwriting platforms, and business acquired in connection with the acquisition of TMR;
- *Investment Results* - our total investment result, which includes the sum of net investment income and net realized and unrealized (losses) gains on investments, was a loss of $11.2 million in the first quarter of 2020, compared to a gain of $252.1 million in the first quarter of 2019, a decrease of $263.3 million. The primary driver of the decrease in the total investment result was net realized and unrealized losses on equity investments trading, combined with net realized and unrealized losses on other investments and lower net realized and unrealized gains on fixed maturity investments, due in part to the recent disruption in global financial markets associated with the COVID-19 pandemic, partially offset by higher returns on investments-related derivatives;
- *Net Income Attributable to Redeemable Noncontrolling Interests* - our net income attributable to redeemable noncontrolling interests was $98.1 million in the first quarter of 2020, compared to $70.2 million in the first quarter of 2019. The increase was primarily driven by higher net income from DaVinciRe and Vermeer in the first quarter of 2020; and
- *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 the first quarter of 2020, compared to the first quarter of 2019, should be viewed in that context.

COVID-19

In late 2019 an outbreak of a novel strain of coronavirus originated in China and has since spread globally. In January 2020, the World Health Organization declared the outbreak a global health emergency, and on March 11, 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. 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, the Company is continuing to evaluate the impact of COVID-19 on its business, operations and financial condition, including its potential loss exposures.

The Company expects 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. Our loss estimate as of March 31, 2020 represents our best estimate based on currently available information, including communications received to date from cedants and brokers, portfolio and contract reviews, and other risk assessment procedures. Actual losses may vary materially from this initial estimate. Additionally, losses incurred in respect of the COVID-19 pandemic subsequent to March 31, 2020 will be reflected in the periods in which those losses are incurred.

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

While the Company believes it has been able to operate effectively with most of its 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 its business. For additional information see "Current Outlook" and "Part II, Item 1A, Risk Factors."

Underwriting Results by Segment

Property

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

Three months ended March 31, (in thousands, except percentages)	2020	2019	Change
Gross premiums written	$ 1,220,526	$ 1,032,384	$ 188,142
Net premiums written	$ 674,581	$ 564,230	$ 110,351
Net premiums earned	$ 421,335	$ 290,745	$ 130,590
Net claims and claim expenses incurred	144,852	56,083	88,769
Acquisition expenses	85,351	53,739	31,612
Operational expenses	44,007	28,544	15,463
Underwriting income	$ 147,125	$ 152,379	$ (5,254)
Net claims and claim expenses incurred – current accident year	$ 130,844	$ 54,206	$ 76,638
Net claims and claim expenses incurred – prior accident years	14,008	1,877	12,131
Net claims and claim expenses incurred – total	$ 144,852	$ 56,083	$ 88,769
Net claims and claim expense ratio – current accident year	31.1%	18.6%	12.5%
Net claims and claim expense ratio – prior accident years	3.3%	0.7%	2.6%
Net claims and claim expense ratio – calendar year	34.4%	19.3%	15.1%
Underwriting expense ratio	30.7%	28.3%	2.4%
Combined ratio	65.1%	47.6%	17.5%

Property Gross Premiums Written

In the first quarter of 2020, our Property segment gross premiums written increased by $188.1 million, or 18.2%, to $1.2 billion, compared to $1.0 billion in the first quarter of 2019.

Gross premiums written in the catastrophe class of business were $936.2 million in the first quarter of 2020, an increase of $91.0 million, or 10.8%, compared to the first quarter of 2019. This increase was driven by expanded participation on existing transactions, certain new transactions, rate improvements, and the acquisition of TMR.

Gross premiums written in the other property class of business were $284.3 million in the first quarter of 2020, an increase of $97.2 million, or 51.9%, compared to the first quarter of 2019. This increase was driven by growth from existing relationships, new opportunities across a number of the Company's underwriting platforms, and business acquired in connection with the acquisition of TMR.

Property Ceded Premiums Written

Three months ended March 31,	**2020**	**2019**	**Change**
(in thousands)			
Ceded premiums written - Property	$ 545,945	$ 468,154	$ 77,791

Ceded premiums written in our Property segment were $545.9 million in the first quarter of 2020, an increase of $77.8 million, or 16.6%, compared to the first quarter of 2019. The increase in ceded premiums written was principally due to certain of the increases in gross premiums written in the catastrophe class of business noted above being ceded to third-party investors in the Company's managed vehicles, primarily Upsilon and Mona Lisa Re Ltd., as well as an overall increase in ceded purchases made as part of the Company's gross-to-net strategy, which is core to the construction of its net portfolios of risk.

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 $147.1 million in the first quarter of 2020, compared to $152.4 million in the first quarter of 2019. In the first quarter of 2020, our Property segment generated a net claims and claim expense ratio of 34.4%, an underwriting expense ratio of 30.7% and a combined ratio of 65.1%, compared to 19.3%, 28.3% and 47.6%, respectively, in the first quarter of 2019.

Principally impacting the Property segment underwriting result and combined ratio in the first quarter of 2020 was higher current accident year net claims and claim expenses primarily driven by a higher level of attritional losses associated with a larger proportion of the other property class of business earning through, as well as a relatively higher number of small insured catastrophe events, compared to the first quarter of 2019. In addition, there was net adverse development on prior accident years net claims and claim expenses of $14.0 million, or 3.3 percentage points, during the first quarter of 2020, primarily driven by higher than expected attritional losses in the other property class of business, combined with the impact of certain of our whole account ceded protections.

Casualty and Specialty Segment

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

Three months ended March 31,	**2020**	**2019**	**Change**
(in thousands, except percentages)			
Gross premiums written	$ 805,195	$ 531,911	$ 273,284
Net premiums written	$ 595,227	$ 364,801	$ 230,426
Net premiums earned	$ 491,763	$ 259,283	$ 232,480
Net claims and claim expenses incurred	426,209	170,933	255,276
Acquisition expenses	125,253	70,212	55,041
Operational expenses	23,454	16,389	7,065
Underwriting (loss) income	$ (83,153)	$ 1,749	$ (84,902)
Net claims and claim expenses incurred – current accident year	$ 426,210	$ 177,135	$ 249,075
Net claims and claim expenses incurred – prior accident years	(1)	(6,202)	6,201
Net claims and claim expenses incurred – total	$ 426,209	$ 170,933	$ 255,276
Net claims and claim expense ratio – current accident year	86.7%	68.3 %	18.4 %
Net claims and claim expense ratio – prior accident years	—%	(2.4)%	2.4 %
Net claims and claim expense ratio – calendar year	86.7%	65.9 %	20.8 %
Underwriting expense ratio	30.2%	33.4 %	(3.2)%
Combined ratio	116.9%	99.3 %	17.6 %

Casualty and Specialty Gross Premiums Written

In the first quarter of 2020, our Casualty and Specialty segment gross premiums written increased by $273.3 million, or 51.4%, to $805.2 million, compared to $531.9 million in the first quarter of 2019. The increase was 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.

Casualty and Specialty Ceded Premiums Written

Three months ended March 31,	**2020**	**2019**	**Change**
(in thousands)			
Ceded premiums written - Casualty and Specialty	$ 209,968	$ 167,110	$ 42,858

Ceded premiums written in our Casualty and Specialty segment were $210.0 million in the first quarter of 2020, compared to $167.1 million in the first quarter of 2019, an increase of $42.9 million. The increase was primarily a result of increased gross premiums written subject to our retrocessional quota share reinsurance programs.

Casualty and Specialty Underwriting Results

Our Casualty and Specialty segment incurred an underwriting loss of $83.2 million in the first quarter of 2020, compared to underwriting income of $1.7 million in the first quarter of 2019. In the first quarter of 2020, our Casualty and Specialty segment generated a net claims and claim expense ratio of 86.7%, an underwriting expense ratio of 30.2% and a combined ratio of 116.9% compared to 65.9%, 33.4% and 99.3%, respectively, in the first quarter of 2019. The underwriting loss in the first quarter of 2020 was principally impacted by net claims and claim expenses of $103.8 million associated with the COVID-19 pandemic, which added 21.1 percentage points to the combined ratio.

The increase in the Casualty and Specialty segment combined ratio in the first quarter of 2020 was driven by an increase of 20.8 percentage points in the net claims and claim expense ratio, driven by higher current accident year losses as a result of the impact of losses associated with the COVID-19 pandemic. The losses primarily represent the cost of claims incurred but not yet reported, with respect to exposures such as event contingency and event-based casualty covers. The underwriting expense ratio in the Casualty and Specialty segment decreased 3.2 percentage points due to a decrease in the operating expense ratio as a result of improved operating leverage, as well as a decrease in the acquisition ratio.

Our loss estimate as of March 31, 2020 represents our best estimate based on currently available information, including communications received to date from cedants and brokers, portfolio and contract reviews, and other risk assessment procedures. Actual losses may vary materially from this initial estimate. Additionally, losses incurred in respect of the COVID-19 pandemic subsequent to March 31, 2020 will be reflected in the periods in which those losses are incurred.

Fee Income

Three months ended March 31,	2020	2019	Change
(in thousands)			
Management fee income			
Joint ventures	$ 11,781	$ 9,735	$ 2,046
Structured reinsurance products and other	8,597	8,245	352
Managed funds	6,418	3,797	2,621
Total management fee income	26,796	21,777	5,019
Performance fee income			
Structured reinsurance products and other	8,375	4,191	4,184
Joint ventures	7,828	2,538	5,290
Managed funds	2,363	298	2,065
Total performance fee income	18,566	7,027	11,539
Total fee income	$ 45,362	$ 28,804	$ 16,558

The table above shows total fee income earned through third-party capital management, as well as various joint ventures 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 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. Managed funds include Upsilon Fund and Medici. Structured reinsurance products and other includes certain vehicles and reinsurance contracts which transfer risk to capital. The TMR third-party capital vehicles which we manage in connection with the acquisition of TMR also generate management fee income, though this fee income was not material to our results of operations in the three months ended March 31, 2020. 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 the three months ended March 31, 2020, total fee income earned through third-party capital management increased $16.6 million, to $45.4 million, compared to $28.8 million in the three months ended March 31, 2019, primarily driven by an increase in the dollar value of capital being managed combined with improved underlying performance.

In addition to the fee income earned through third-party capital management, various joint ventures and certain structured retrocession agreements to which we are a party, as detailed in the table above, we also earn 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, as described above and including fee income earned on certain other underwriting-related activities, earned by us in the three months ended March 31, 2020 that were recorded as a reduction to operating expenses or acquisition expenses were $26.3 million and $3.6 million, respectively, resulting in a reduction to the combined ratio of 3.3% (2019 - $21.3 million, $1.7 million and 4.2%, respectively).

Net Investment Income

Three months ended March 31,	2020	2019	Change
(in thousands)			
Fixed maturity investments	$ 73,338	$ 61,483	$ 11,855
Short term investments	12,092	11,844	248
Equity investments trading	1,551	1,027	524
Other investments			
Catastrophe bonds	14,139	8,691	5,448
Other	1,629	1,640	(11)
Cash and cash equivalents	1,504	1,517	(13)
	104,253	86,202	18,051
Investment expenses	(4,780)	(4,108)	(672)
Net investment income	$ 99,473	$ 82,094	$ 17,379

Net investment income was $99.5 million in the first quarter of 2020, compared to $82.1 million in the first quarter of 2019, an increase of $17.4 million. Impacting our net investment income for the first quarter of 2020 was higher returns in our fixed maturity and catastrophe bond portfolios, primarily as a result of higher net invested assets across these portfolios.

Net Realized and Unrealized (Losses) Gains on Investments

Three months ended March 31,	2020	2019	Change
(in thousands)			
Gross realized gains	$ 68,847	$ 24,373	$ 44,474
Gross realized losses	(11,360)	(22,943)	11,583
Net realized gains on fixed maturity investments trading	57,487	1,430	56,057
Net unrealized (losses) gains on fixed maturity investments trading	(20,345)	103,922	(124,267)
Net realized and unrealized gains on investments-related derivatives	33,181	13,796	19,385
Net realized losses on equity investments trading	(15,047)	(1,161)	(13,886)
Net unrealized (losses) gains on equity investments trading	(105,937)	52,658	(158,595)
Net realized and unrealized losses on other investments - catastrophe bonds	(14,352)	(2,210)	(12,142)
Net realized and unrealized (losses) gains on other investments - other	(45,694)	1,578	(47,272)
Net realized and unrealized (losses) gains on investments	$ (110,707)	$ 170,013	$ (280,720)

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 and credit spreads. Therefore, everything else being constant, as interest rates or credit spreads decline, we will tend to have realized and unrealized gains from our fixed maturity investments portfolio, and as interest rates and credit spreads rise, we will tend to have realized and unrealized losses from our fixed maturity investments portfolio.

Net realized and unrealized losses on investments were $110.7 million in the first quarter of 2020, compared to net realized and unrealized gains of $170.0 million in the first quarter of 2019, a decrease of $280.7 million. Principally impacting our net realized and unrealized losses on investments was net realized and unrealized losses on equity investments trading, combined with net realized and unrealized losses on other investments and lower net realized and unrealized gains on fixed maturity investments, due in part to the recent disruption in global financial markets associated with the COVID-19 pandemic, partially offset by higher returns on investments-related derivatives. The primary driver was the decrease in the value of the equity investments trading, which includes our strategic investments in Essent Group Ltd. and Trupanion Inc. Equity investments trading represents 2.0% of the Company's total investment portfolio of $17.8 billion as of March 31, 2020. The Company was favorably positioned during the recent disruption in global financial markets associated with the COVID-19 pandemic as a significant portion of the Company's investment portfolio is weighted towards high-quality fixed maturity investments.

Net Foreign Exchange Losses

Three months ended March 31,	2020	2019	Change
(in thousands)			
Net foreign exchange losses	$ (5,728)	$ (2,846)	$ (2,882)

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" in our Form 10-K for the year ended December 31, 2019 for additional information related to our exposure to foreign currency risk and "Note 13. 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

Three months ended March 31,	2020	2019	Change
(in thousands)			
Top Layer Re	$ 2,406	$ 2,265	$ 141
Tower Hill Companies	409	501	(92)
Other	1,749	1,895	(146)
Total equity in earnings of other ventures	$ 4,564	$ 4,661	$ (97)

Equity in earnings of other ventures primarily represents our pro-rata share of the net income from our investments 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") 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 $4.6 million in the first quarter of 2020, compared to $4.7 million in the first quarter of 2019, a decrease of $0.1 million.

Other (Loss) Income

Three months ended March 31,	2020	2019	Change
(in thousands)			
Assumed and ceded reinsurance contracts accounted for as derivatives and deposits	$ (5,007)	$ 3,106	$ (8,113)
Other items	571	65	506
Total other (loss) income	$ (4,436)	$ 3,171	$ (7,607)

In the first quarter of 2020, we incurred an other loss of $4.4 million, compared to other income of $3.2 million in the first quarter of 2019, a decrease of $7.6 million, primarily related to our assumed and ceded reinsurance contracts accounted for as derivatives and deposits.

Corporate Expenses

Three months ended March 31,	2020	2019	Change
(in thousands)			
Corporate expenses	$ 15,991	$ 38,789	$ (22,798)

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 decreased to $16.0 million in the first quarter of 2020, compared to $38.8 million in the first quarter of 2019, primarily due to $25.5 million of corporate expenses associated with the acquisition of TMR during the first quarter of 2019, compared to $4.4 million of integration and compensation related costs associated with TMR in the first quarter of 2020.

Income Tax Benefit (Expense)

Three months ended March 31,	2020	2019	Change
(in thousands)			
Income tax benefit (expense)	$ 8,846	$ (7,531)	$ 16,377

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

We recognized an income tax benefit of $8.8 million in the first quarter of 2020, compared to an expense of $7.5 million in the first quarter of 2019, primarily driven by losses in the Company's U.S. operations due to losses in the investment portfolio and underwriting losses associated with the COVID-19 pandemic.

Net Income Attributable to Redeemable Noncontrolling Interests

Three months ended March 31,	2020	2019	Change
(in thousands)			
Net income attributable to redeemable noncontrolling interests	$ (98,091)	$ (70,222)	$ (27,869)

Our net income attributable to redeemable noncontrolling interests was $98.1 million in the first quarter of 2020, compared to $70.2 million in the first quarter of 2019, a change of $27.9 million. The increase was primarily driven by DaVinciRe and Vermeer generating net income of $108.0 million and $17.9 million, respectively, in the first quarter of 2020, compared to $80.3 million and $5.2 million, respectively, in the first quarter of 2019.

FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

The Company's liquidity and capital resources were not materially impacted by the COVID-19 pandemic and related volatility and slowdown in the global financial markets during the first quarter of 2020. For further discussion regarding the potential future impacts of the COVID-19 pandemic and related economic conditions on the Company's liquidity and capital resources, see "Current Outlook" and "Part II, Item 1A, Risk Factors."

Financial Condition

As a Bermuda-domiciled holding company, RenaissanceRe has limited operations of its own. Its assets consist primarily of investments in subsidiaries, and, to a degree, 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 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 March 31, 2020. Certain of our subsidiaries and branches are required to file financial condition reports, or 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” in our Form 10-K for the year ended December 31, 2019.

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 (UK) Limited 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 addition, from time to time we invest in new managed joint ventures, increase our investments in certain of our managed joint ventures 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 losses and operating expenses of 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.

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 claims and claims expenses to be reported and ultimately settled, requiring the establishment of reserves for claims and claim expenses. Therefore, the amount of claims paid in any one year is not necessarily related to the amount of net claims 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.

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 an unlimited amount of debt and equity securities.

Credit Facilities

In addition, we maintain letter of 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:

At March 31, 2020	Issued or Drawn
Revolving Credit Facility (1)	$ —
Bilateral Letter of Credit Facilities	
Secured	324,147
Unsecured	373,951
Funds at Lloyd's Letter of Credit Facility	290,000
TMR Letters of Credit (2)	75
	$ 988,173

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

(2) These letters of credit were transferred to us in connection with the acquisition of TMR and were terminated during the quarter ended March 31, 2020, except for certain immaterial amounts. Refer to "Note 3. Acquisition of Tokio Millennium Re" in our "Notes to the Consolidated Financial Statements" included in the Company's Form 10-K for the year ended December 31, 2019 for additional information related to the acquisition of TMR.

During the quarter ended March 31, 2020, the letters of credit and facilities that were transferred to the Company in connection with the acquisition of TMR were terminated, except as to certain immaterial amounts. The parties had previously agreed that no new letters of credit would be issued under these facilities. There have been no other material changes to our credit facilities as disclosed in our Form 10-K for the year ended December 31, 2019.

Refer to “Note 7. Debt and Credit Facilities” in our “Notes to the Consolidated Financial Statements” for additional information related to our debt and significant 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 in the form of cash, securities or letters of credit, which are referred to as Funds at Lloyd’s. At March 31, 2020, the FAL required to support the underwriting activities at Lloyd’s through Syndicate 1458 was £526.2 million (December 31, 2019 - £524.3 million). Actual FAL posted for Syndicate 1458 at March 31, 2020 by RenaissanceRe CCL was £519.7 million (December 31, 2019 - £522.5 million), supported by a $290.0 million letter of credit and a $396.0 million deposit of cash and fixed maturity securities (December 31, 2019 - $290.0 million and $385.9 million, respectively).

Multi-Beneficiary Reinsurance Trusts and Multi-Beneficiary Reduced Collateral Reinsurance Trusts

Certain of our insurance subsidiaries use multi-beneficiary reinsurance trusts and multi-beneficiary reduced collateral reinsurance trusts to collateralize reinsurance liabilities. Refer to “Note 18. Statutory Requirements” in our “Notes to the Consolidated Financial Statements” in our Form 10-K for the year ended December 31, 2019 for additional information.

Multi-Beneficiary Reinsurance Trusts

Assets held under trust at March 31, 2020 with respect to our multi-beneficiary reinsurance trusts totaled $1.1 billion and $273.8 million for Renaissance Reinsurance and DaVinci, respectively (December 31, 2019 - $1.3 billion and $336.5 million, respectively), compared to the minimum amount required under U.S. state regulations of $921.2 million and $218.2 million, respectively, at March 31, 2020 (December 31, 2019 - $927.4 million and $249.4 million, respectively).

Multi-Beneficiary Reduced Collateral Reinsurance Trusts

Assets held under trust at March 31, 2020 with respect to our multi-beneficiary reduced collateral reinsurance trusts totaled $54.7 million and $46.5 million for Renaissance Reinsurance and DaVinci, respectively (December 31, 2019 - $51.7 million and $43.8 million, respectively), compared to the minimum amount required under U.S. state regulations of $43.1 million and $44.8 million, respectively (December 31, 2019 - $40.3 million and $40.9 million, respectively).

Cash Flows

Three months ended March 31, (in thousands)	2020	2019
Net cash provided by operating activities	$ 475,466	$ 377,149
Net cash used in investing activities	(530,282)	(616,042)
Net cash (used in) provided by financing activities	(429,617)	152,538
Effect of exchange rate changes on foreign currency cash	1,581	(292)
Net decrease in cash and cash equivalents	(482,852)	(86,647)
Cash and cash equivalents, beginning of period	1,379,068	1,107,922
Cash and cash equivalents, end of period	$ 896,216	$ 1,021,275

2020

During the three months ended March 31, 2020, our cash and cash equivalents decreased by $482.9 million, to $896.2 million at March 31, 2020, compared to $1.4 billion at December 31, 2019.

Cash flows provided by operating activities. Cash flows provided by operating activities during the three months ended March 31, 2020 were $475.5 million, compared to $377.1 million during the three months ended March 31, 2019. Cash flows provided by operating activities during the three months ended March 31, 2020 were primarily the result of certain adjustments to reconcile our net income of $25.2 million to net cash provided by operating activities, including:

- an increase in reinsurance balances payable of $944.7 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. See "Note 9. 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 $714.9 million due to the growth in gross premiums written across both our Property and Casualty and Specialty segments;
- net realized and unrealized losses on investments of $110.7 million principally due to negative performances from our equity investments trading and other investments, due in part to the recent disruption in global financial markets associated with the COVID-19 pandemic; partially offset by
- increase in premiums receivable of $505.5 million due to the timing of receipts and increase in our gross premiums written;
- an increase of $384.1 million in our prepaid reinsurance premiums due to the timing of payments and increase in ceded premiums written; and
- a decrease in other operating cash flows of $405.5 million primarily reflecting subscriptions received in advance of the issuance of Upsilon RFO's non-voting preference shares effective January 1, 2020, which were recorded in other liabilities at December 31, 2019. During the three months ended March 31, 2020, in connection with the issuance of the non-voting preference shares of Upsilon RFO, other liabilities were reduced by the subscriptions received in advance, 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, as noted above, on our consolidated statements of cash flows for the three months ended March 31, 2020. See "Note 9. 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 the three months ended March 31, 2020, our cash flows used in investing activities were $530.3 million, principally reflecting net purchases of short term investments, other investments and equity investments trading of $704.2 million, $79.7 million and $44.5 million, respectively. Partially offsetting these net purchases was proceeds from net sales and maturities of fixed maturity investments trading of $290.9 million, which, along with cash flows provided by operating activities, were primarily used to fund our cash flows used in financing activities as described below. The net purchase of short term investments was funded in part by the capital received from investors in Upsilon RFO, and other net cash flows provided by operating activities. The net purchase of other investments during the three months ended March 31, 2020, was primarily driven by an increased allocation to catastrophe bonds.

Cash flows used in financing activities. Our cash flows used in financing activities in the three months ended March 31, 2020 were $429.6 million, and were principally the result of:

- the repayment in full at maturity 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;
- dividends paid on our common and preference shares of $15.4 million and $9.1 million, respectively; partially offset by

- net inflows of $42.6 million primarily related to net third party redeemable noncontrolling interest share transactions in DaVinciRe and Medici.

2019

During the three months ended March 31, 2019, our cash and cash equivalents decreased by $86.6 million, to $1.0 billion at March 31, 2019, compared to $1.1 billion at December 31, 2018.

Cash flows provided by operating activities. Cash flows provided by operating activities during the three months ended March 31, 2019 were $377.1 million, compared to cash flows used by operating activities of $37.3 million during the three months ended March 31, 2018. Cash flows provided by operating activities during the three months ended March 31, 2019 were primarily the result of certain adjustments to reconcile our net income of $353.1 million to net cash provided by operating activities, including:

- an increase in reinsurance balances payable of $837.3 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. See “Note 9. 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 $709.0 million due the growth in gross premiums written across both our Property and Casualty and Specialty segments, combined with the timing of the January 1 renewals; partially offset by
- a decrease in other operating cash flows of $304.3 million primarily reflecting subscriptions received in advance of the issuance of Upsilon RFO’s non-voting preference shares effective January 1, 2019, which were recorded in other liabilities at December 31, 2018. During the first quarter of 2019, in connection with the issuance of the non-voting preference shares of Upsilon RFO, other liabilities were reduced by the subscriptions received in advance, 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, as noted above, on our consolidated statements of cash flows for the first quarter of 2019. See “Note 9. Variable Interest Entities” in our “Notes to the Consolidated Financial Statements” for additional information related to Upsilon RFO’s non-voting preference shares;
- increases in premiums receivable and deferred acquisition costs of $578.2 million and $58.9 million, respectively, due to the timing of payments of our gross premiums written and amortization of deferred acquisition costs, respectively;
- an increase of $330.0 million in our prepaid reinsurance premiums due to ceded premiums written associated with the January 1 renewals;
- a decrease in our reserve for claims and claim expenses of $92.3 million as a result of claims and claims expenses incurred of $338.1 million during the three months ended March 31, 2019, more than offset by claims payments of $412.7 million, largely associated with the 2017 Large Loss Events; and
- net realized and unrealized gains on investments of $170.0 million principally due to improved performances from our fixed maturity investments, public equity and investments-related derivative portfolios.

Cash flows used in investing activities. During the three months ended March 31, 2019, our cash flows used in investing activities were $616.0 million, principally reflecting net purchases of short term investments of $1.4 billion, partially offset by net sales of fixed maturity investments of $1.1 billion. The net purchase of short term investments was funded in part by the capital received from investors in Upsilon RFO and the net sales of fixed maturity investments, as discussed above. 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 the TMR of $537.4 million. See “Note 3. Acquisition of Tokio Millennium Re” in the Company’s “Notes to the Consolidated Financial Statements” included in the Company’s Form 10-K for the year ended December 31, 2019 for additional information related to the acquisition of the TMR.

Cash flows provided by financing activities. Our cash flows provided by financing activities in the three months ended March 31, 2019 were $152.5 million, and were principally the result of:

- net inflows of $200.0 million from the drawdown of the RenaissanceRe Revolving Credit Facility which was used to partially fund the purchase price for TMR;
- net inflows of $16.8 million related to a net contribution of capital from third-party shareholders, principally in Medici; partially offset by
- dividends paid on our common and preference shares of $14.5 million and $9.2 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 and joint ventures. 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 in their reinsurance and insurance business.

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

(in thousands)	At March 31, 2020	At December 31, 2019	Change
Common shareholders' equity	$ 5,158,526	$ 5,321,367	$ (162,841)
Preference shares	525,000	650,000	(125,000)
Total shareholders' equity attributable to RenaissanceRe	5,683,526	5,971,367	(287,841)
3.600% Senior Notes due 2029	391,703	391,475	228
3.450% Senior Notes due 2027	296,415	296,292	123
3.700% Senior Notes due 2025	298,150	298,057	93
5.750% Senior Notes due 2020 (2)	—	249,931	(249,931)
4.750% Senior Notes due 2025 (DaVinciRe) (1)	148,427	148,350	77
Total debt	$ 1,134,695	$ 1,384,105	$ (249,410)
Total shareholders' equity attributable to RenaissanceRe and debt	$ 6,818,221	$ 7,355,472	$ (537,251)

(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.

(2) The 5.750% Senior Notes due 2020 were repaid in full at maturity on March 15, 2020.

During the three months ended March 31, 2020, our total shareholders' equity attributable to RenaissanceRe and debt decreased by $0.5 billion, to $6.8 billion.

Our shareholders' equity attributable to RenaissanceRe decreased $287.8 million during the three months ended March 31, 2020 principally as a result of:

- 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;
- our comprehensive loss attributable to RenaissanceRe of $72.6 million;

- 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
- $15.4 million and $9.1 million of dividends on our common and preference shares, respectively.

Our debt decreased $249.4 million during the three months ended March 31, 2020 principally as a result of the repayment in full at maturity of our 5.75% Senior Notes due 2020 of RenRe North America Holdings Inc. and RenaissanceRe Finance 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 7. Debt and Credit Facilities” in our “Notes to the Consolidated Financial Statements” in this Form 10-Q and “Note 9. Debt and Credit Facilities” in our “Notes to the Consolidated Financial Statements” in our Form 10-K for the year ended December 31, 2019. See “Note 10. Shareholders’ Equity” in our “Notes to the Consolidated Financial Statements” in this Form 10-Q and “Note 12. Shareholders’ Equity” in our “Notes to the Consolidated Financial Statements” in our Form 10-K for the year ended December 31, 2019 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” in our Form 10-K for the year ended December 31, 2019 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” in our Form 10-K for the year ended December 31, 2019 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:

(in thousands, except percentages)	March 31, 2020		December 31, 2019		Change
U.S. treasuries	$ 3,915,130	22.0%	$ 4,467,345	25.7%	$ (552,215)
Agencies	537,490	3.1%	343,031	1.9%	194,459
Non-U.S. government	635,282	3.6%	497,392	2.9%	137,890
Non-U.S. government-backed corporate	283,577	1.6%	321,356	1.9%	(37,779)
Corporate	3,259,780	18.3%	3,075,660	17.7%	184,120
Agency mortgage-backed	1,056,272	5.9%	1,148,499	6.6%	(92,227)
Non-agency mortgage-backed	275,026	1.6%	294,604	1.7%	(19,578)
Commercial mortgage-backed	540,502	3.0%	468,698	2.7%	71,804
Asset-backed	542,742	3.1%	555,070	3.2%	(12,328)
Total fixed maturity investments, at fair value	11,045,801	62.2%	11,171,655	64.3%	(125,854)
Short term investments, at fair value	5,263,242	29.4%	4,566,277	26.3%	696,965
Equity investments trading, at fair value	360,444	2.0%	436,931	2.5%	(76,487)
Other investments, at fair value	1,058,714	5.9%	1,087,377	6.3%	(28,663)
Total managed investment portfolio	17,728,201	99.5%	17,262,240	99.4%	465,961
Investments in other ventures, under equity method	90,396	0.5%	106,549	0.6%	(16,153)
Total investments	$ 17,818,597	100.0%	$ 17,368,789	100.0%	$ 449,808

At March 31, 2020, we held investments totaling $17.8 billion, compared to $17.4 billion at December 31, 2019. In connection with the acquisition of TMR, we acquired total investments with a fair market value of $2.3 billion on March 22, 2019, the date of acquisition. 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, see “Note 3. Investments” and “Note 4. 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).

Other Investments

The table below shows our portfolio of other investments:

(in thousands)	March 31, 2020	December 31, 2019	Change
Catastrophe bonds	$ 786,531	$ 781,641	$ 4,890
Private equity investments	240,277	271,047	(30,770)
Senior secured bank loan funds	22,579	22,598	(19)
Hedge funds	9,327	12,091	(2,764)
Total other investments	$ 1,058,714	$ 1,087,377	$ (28,663)

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, obtaining the valuation of underlying portfolio investments where such underlying investments are publicly traded and therefore have a readily observable price, using information that is available to us with respect to the underlying investments, reviewing various indices for similar investments or asset classes, and estimating returns based on the results of similar types of investments for which we have obtained reported results, or other valuation methods, where possible. 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 (losses) gains on investments for the three months ended March 31, 2020 is a loss of $1.3 million (2019 - a loss of $5.9 million) representing the change in estimate during the period related to the difference between our estimated net realized and unrealized (losses) gains due to the lag in reporting 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. See “Note 4. Fair Value Measurements” in our “Notes to the Consolidated Financial Statements” for additional information regarding the fair value of measurement of our investments.

We have committed capital to private equity investments, other investments and investments in other ventures of $1.2 billion, of which $740.6 million has been contributed at March 31, 2020. Our remaining commitments to these investments at March 31, 2020 totaled $475.2 million. In the future, we may enter into additional commitments in respect of private equity investments or individual portfolio company investment opportunities.

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 Company, Inc. ("A.M. Best"), S&P Global Ratings ("S&P"), Moody's Investors Service ("Moody's") and Fitch Ratings Ltd. ("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 Enterprise Risk Management rating of RenaissanceRe as of May 4, 2020 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 our Enterprise Risk Management ("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 RenaissanceRe Syndicate 1458's financial strength rating.

As of May 4, 2020, there were no other material changes to our ratings as disclosed in our Form 10-K for the year ended December 31, 2019.

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 March 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 as summarized in our Form 10-K for the year ended December 31, 2019. We consider these contractual obligations when assessing our liquidity requirements. As of March 31, 2020, there were no material changes in our contractual obligations as disclosed in the table of contractual obligations and related footnotes included in our Form 10-K for the year ended December 31, 2019.

CURRENT OUTLOOK

The COVID-19 Pandemic and General Economic Conditions

The global COVID-19 pandemic has had immense impacts on a global scale, resulting in significant and continuing medical, social and economic hardships. Estimating the impact of the COVID-19 pandemic is complicated and challenging, and its ultimate impact and the extent of losses is highly unpredictable and uncertain at this time. Among the uncertainties that render such estimation unusually challenging are the unknown length and severity of the pandemic, as well as the extent and duration of society’s response. From governments’ unprecedented imposition of constraints on economic and social activity, to longer term changes in societal behaviors that may result from people’s reactions to the pandemic, we believe that the COVID-19 pandemic could change demand for (re)insurance products going forward and transform the industry.

We expect that stress in the global economy will continue, possibly with a deep recession and severe unemployment, but we are unable to predict the ultimate duration and severity of the economic downturn. Given that the demand for insurance is significantly influenced by prevailing economic conditions, continued declining and weak global economic conditions may lead to a suppression of demand for insurance and reinsurance generally, although we believe there will be opportunities for the businesses that we write, including in the second half of the year. This pressure may inordinately affect the smaller competitors in the primary insurance, reinsurance and retrocessional markets. In turn, these pressures may lead to increased consolidation as larger, better capitalized competitors will be in a stronger position to withstand prolonged periods of economic downturn and sustain their business through the financial volatility. In the current environment, capital and liquidity are extremely important, and we believe our capital and liquidity positions are strong. However, as the COVID-19 pandemic drags on, 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. In addition to these potential liquidity risks, current economic conditions have, and will likely continue to, heighten our counterparty credit risk due to the strain that the COVID-19 pandemic is putting on potentially all companies, including our own customers, agents, brokers, retrocessionaires, and capital providers. If there is a sustained economic downturn resulting from the pandemic, these effects could be magnified or could manifest themselves in ways that we cannot currently predict. Economic disruption and changing market dynamics may also lead to significant changes and mismatches in the market as different insurance products compete for similar coverages. While we believe that we are well positioned to 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.

More broadly, steps taken by governments throughout the world in responding to the COVID-19 pandemic, including the reduction of interest rates in certain jurisdictions in the U.S., could lead to higher inflation over time than we had anticipated, leading to higher costs of claims and claim expenses and the need to increase our reserves. The effects of this trend could be magnified for longer-tail business lines that are more inflation sensitive, particularly our casualty business.

While much of the positive performance in our investment portfolio in the first quarter of 2020 was mark-to-market, we expect that it is highly likely that we will realize large losses in certain individual positions in our investment portfolio in future periods, particularly in our equity investments trading portfolio and in lower rated corporate credit, as a result of the economic changes from the COVID-19 pandemic. Our ability to derive investment income from our investments may also become more difficult as the economic volatility continues. The sustained environment of low interest rates in recent years lowered the yields at which we invest our assets relative to longer-term historical levels. In 2019 and the first quarter of 2020, decreases in prevailing interest rates contributed significantly to comparably high net realized and unrealized gains from our invested assets. However, as we invest cash from new premiums written or reinvest the proceeds of invested assets, we expect the yield on our portfolio to be adversely impacted by the anticipated period of low interest rates and broader economic uncertainty.

Reinsurance Market Trends and Developments

Even before the onset of the COVID-19 pandemic, rates were rising across most lines of business. We believe that the uncertainty around the potential breadth and depth of losses that could arise from the COVID-19 pandemic should continue to accelerate this rise in rates. In addition, partly as a result of expected reductions in the availability of retrocessional capacity from third party investors as third-party capital becomes less abundant, we expect that the trend of increasing rates for retrocessional coverage may accelerate. Accordingly, this trend may affect the amount of such protection we purchase in the future. However, consistent with our strategy of retaining more risk when prices are rising, we expect to manage any potential reductions in the availability of retrocessional reinsurance. We may also see additional opportunities to be a provider of retrocessional reinsurance as rates increase. Another factor that may contribute to rising rates is that we anticipate reinsurers will be less inclined to write certain classes of business in which we participate that are most impacted by social inflation trends, the risks of climate change, regional or market segment weakness, or other factors, without proper pricing adjustments if other, less risky, opportunities to deploy capital are available to them. Certain classes of business, like Florida homeowners coverage and certain forms of casualty coverage, may be impacted by more than one of these factors. Our assessment of these changes in risk exposure will impact our appetite to renew or pursue business we perceive to be adversely impacted, either absolutely or relative to other market opportunities.

Property Exposed Market Developments

While the impact of COVID-19 may be the most significant driver of market dynamics in the near-term, there are other recent trends that have impacted property exposed markets. We estimate that the insurance and reinsurance markets experienced some of the largest back-to-back years for insured natural disaster losses in history from 2017 to 2019 from multiple hurricanes, typhoons, wildfires and earthquakes. The associated losses over this period affected an unusually large number of regions, insureds, reinsurance lines and reinsurers. In addition, the ultimate scale of the losses, difficulty of loss estimation, length of payout periods, social inflation risk and other factors have contributed to uncertainty around these loss events and the market has been impacted by continuing, significant adverse developments from these events. In particular, we estimate that the industry’s reported adverse developments on Typhoon Jebi and on Hurricane Irma would each represent, by themselves, historically large insured loss events.

We believe that revised views of risk as a result of these experiences and the potential reduction of capacity or risk appetite from the insurance-linked securities market, have contributed favorably to market conditions, although there can be no assurance that these developments will continue or be sustained. Based on our experience, intermediary reports and other industry commentary, in respect of the January 2020 renewal, rates for retrocessional reinsurance and some lines of primary insurance were up substantially, while rates on other layers of reinsurance, if loss free in expiring periods, were up less markedly. Loss affected reinsurance programs and lines, such as treaties exposed to the California wildfires, showed more substantially improved terms. In respect of the April 2020 renewal, which includes our Japanese property catastrophe business, the industry saw significant rate improvements in certain lines, such as wind risk, while earthquake-only risk remained flat, but at attractive levels.

These developments facilitated our growth in gross premiums written, both in our existing operations and by presenting opportunities to deploy additional third-party capital. Nonetheless, in respect of certain regions and perils we continue to assess that prevailing rate increases were not sufficient to offset increases in exposure, continuing risks from social inflation and the potential for sustained elevation in exposure due to changes in climate conditions and demographics. For example, we continue to carefully monitor ongoing, adverse trends in the Florida market with respect to claims practices, litigation risks, and exposure growth, and are prepared to continue to reduce our exposure to risks and accounts exposed to these trends. While we believe we are well positioned to compete for business we find attractive, a number of dynamics may limit the degree to which the market sustains favorable improvements in the near-term or continue to introduce or exacerbate long-term challenges in our markets.

Casualty and Specialty Exposed Market Developments

Certain of the markets in which our Casualty and Specialty segment operate experienced generally favorable rate trends in respect of the January 2020 renewals. We also saw meaningful improvements in terms and conditions, including broad-based reductions in ceding commissions. In 2019, we observed favorable conditions for accounts that exhibited elevated loss emergence or underlying rate deterioration, but we also estimate that the favorable market trends have extended more broadly. In the near term, we expect that the COVID-19 pandemic will put further pressure on rates and that current pricing trends are likely to continue, with terms and conditions for loss-affected lines of business continuing to show particular improvement and certain other areas of the casualty and specialty market potentially maintaining less pronounced but positive adjustments.

At the same time, we also estimate that underlying loss costs for many casualty and specialty lines of business will continue to rise, while the costs of capital increases and opportunities for investment income decrease. The casualty and specialty markets have continued to broadly exhibit adverse loss development and negative exposure trends, including a meaningful increase in both the incidence and severity of civil jury awards and other social inflation trends.

We plan to continue to seek unique or differentiated opportunities to provide coverage on large programs open to us on a differentiated basis or to select markets. However, we cannot assure you that positive market trends will continue, that we will succeed in identifying and expanding on attractive programs or obtain potentially attractive new programs, or that future, currently unforeseen, developments will not adversely impact the casualty and specialty markets.

Relatedly, specific renewal terms vary widely by insured account and our ability to shape our portfolio to improve its estimated risk and return characteristics is subject to a range of competitive and commercial factors. We cannot assure you that these positive dynamics will be sustained, or that we will participate fully in improving terms. We intend to seek to maintain strong underwriting discipline and, in light of prevailing market conditions, cannot provide assurance that we will succeed in growing or maintaining our current combined in-force book of business.

Legislative and Regulatory Update

As a result of the COVID-19 pandemic, we are seeing many legislative and regulatory initiatives that, if enacted, could have a significant adverse effect on our business and results of operations. For example, at the federal level, following the initial onset of the pandemic, Congress considered legislation that would have retroactively forced insurers to cover pandemic claims in business interruption policies even if specifically excluded. At the state level in the U.S., at least eight states and the District of Columbia have considered legislation to putatively require retroactive business interruption coverage, and while none have yet passed legislation, we expect that any such legislation will be challenged in court should it become law, however, any legal action challenging such legislation could take years to resolve and there can be no assurance that the outcomes would be favorable. Moreover, a number of stakeholder groups have advocated that, regardless of the passage of any such legislation, primary insurers voluntarily pay business interruption claims, even if excluded. While we are prepared to engage constructively with our cedants in respect of any such developments, we are also committed to enforcing our own contractual and legal rights, and the outcome of any of these developments is challenging to currently assess.

Congress is also considering several proposals to prepare for the next pandemic. One such proposal would establish a Pandemic Risk Insurance Act, which would establish a public-private partnership with insurers retaining 5% of the risk of a future pandemic and the federal government assuming the remainder of the risk, with businesses charged an “actuarial premium.” Another proposal would create a standing, multi-billion-dollar fund which the federal government would use to pay businesses directly for pandemic losses, rather than through an insurance product.

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. We have been a leader in several iterations of innovative governmental risk transfer initiatives, at the U.S. federal and state level, and in a number of other jurisdictions, across a range of perils. We believe we are well positioned to collaborate on, and participate in, any such new initiatives. 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 we would succeed in participating, or that the terms of any such facilities would be attractive.

Across the world, many governments have reacted to COVID-19 by proposing or enacting stimulus measures which incorporate a variety of strategies, including certain tax relief measures and incentives. In general, we do not expect to participate in, or benefit from, any such initiatives. Accordingly, at this time, we do not anticipate any tax law changes or incentives in the jurisdictions where we operate will have a beneficial impact on our results of operations or financial position. Over time, it is possible that many jurisdictions in which we operate, or markets where we provide coverages or services, may consider changes to their tax and revenue systems in light of the unprecedented stimulus, borrowing, and fiscal measures undertaken recently and which may yet be enacted as the pandemic and its impacts continue. It is possible that such measures could increase tax burdens on companies operating in such jurisdictions, or operating multilaterally, or which transact in or with respect to such jurisdictions. At this time we can not anticipate or estimate the costs of any such future initiatives.

In prior Congressional sessions, Congress has considered a range of potential legislation which would, if enacted, provide for matters such as the creation of (i) a federal reinsurance catastrophe fund; (ii) a federal consortium to facilitate qualifying state residual markets and catastrophe funds in securing reinsurance; and (iii) a federal bond guarantee program for state catastrophe funds in qualifying state residual markets. In April 2016, H.R.4947, the Natural Disaster Reinsurance Act of 2016, which would create a federal reinsurance program to cover any losses insured or reinsured by eligible state programs arising from natural catastrophes, including losses from floods, earthquakes, tropical storms, tornadoes, volcanic eruption and winter storms, was introduced. If enacted, this bill, or legislation, similar to any of these proposals, would, we believe, likely contribute to the growth of state entities offering below-market priced insurance and reinsurance in a manner adverse to us and market participants more generally. Such legislation could also encourage cessation, or even reversal, of reforms and stabilization initiatives that have been enacted in the state of Florida and other catastrophe-exposed states in recent years. While we believe such legislation will continue to be vigorously opposed, if adopted these bills would likely diminish the role of private market catastrophe reinsurers and could adversely impact our financial results, perhaps materially.

In June 2012, Congress passed the Biggert-Waters Bill, which provided for a five-year renewal of the National Flood Insurance Program (the “NFIP”) and, among other things, authorized the Federal Emergency Management Agency (“FEMA”) to carry out initiatives to determine the capacity of private insurers, reinsurers, and financial markets to assume a greater portion of the flood risk exposure in the U.S., and to assess the capacity of the private reinsurance market to assume some of the program’s risk. Commencing in January 2017, FEMA has, acting under authority contemplated by the Biggert-Waters Bill, secured annual reinsurance protection for the NFIP. Most recently, in January 2020, FEMA announced that it had renewed its reinsurance program to provide for $1.33 billion of protection in respect of 2020, covering 10.25% of NFIP’s losses between $4 billion and $6 billion, 34.7% of its losses between $6 billion and $8 billion, and 21.8% of its losses between $8 billion and $10 billion. In addition, NFIP has procured an additional $500 million of private market protection via the FloodSmart Re $500 million Series 2018-1 Notes. It is possible this program will continue and potentially expand in future periods and may encourage other U.S. federal programs to explore private market risk transfer initiatives; however, we cannot assure you that any such developments will in fact occur, or that if they do transpire we will succeed in participating.

The statutory authorization for the operation and continuation of the NFIP has expired and received a series of short-term extensions. The NFIP’s current authorization has been extended to September 30, 2020. In January 2019, the Federal Deposit Insurance Corp. and Office of the Comptroller of the Currency issued rules requiring lenders to accept private flood insurance policies that have coverage at least as comprehensive as that offered by NFIP, and providing a framework to evaluate alternative flood coverage; these rules went into effect on July 1, 2019. Congress is also considering legislative language that would direct FEMA to consider policyholders who discontinue an NFIP policy and then later return to the NFIP as having continuous coverage if they can demonstrate that a flood insurance policy from a private firm was maintained throughout the interim period. To the extent these laws, rules and regulations are adopted and enforced, they could incrementally contribute to the growth of private residential flood opportunities and the financial stabilization of the NFIP. However, we cannot assure you that legislation to reform the NFIP will indeed be enacted or that the private market for residential flood protection will be enhanced if it is.

In recent years, market conditions for insurance in the state of Florida have been significantly impacted by the increasingly prevalent utilization of a practice referred to as “assignment of benefits,” or “AOB.” We currently estimate that the impacts of AOB have contributed adversely and significantly to the ultimate economic losses borne by the insurance market in light of recent large Florida loss events, including Hurricanes Irma and Michael. An AOB is an instrument executed by a primary policyholder that is deemed to permit certain third parties, such as water extraction companies, roofers or plumbers, to “stand in the shoes” of the insured and seek direct payments from the policyholder’s insurance company.

In April 2019, SB 122: The Insurance Assignment Agreements Act (the “AOB Reform Bill”) became law in Florida, effective July 1, 2019. While we are cautiously optimistic that this law could somewhat mitigate, in respect of losses subsequent to July 2019, some of the more egregious practices that have contributed to adverse industry results in Florida, we continue to believe that the likely estimated impact to exposed loss in reinsurance treaties and programs will not be material. In addition, the AOB Reform Bill is not intended to remediate the adverse impacts of earlier events, such as the large losses in 2017 and 2018, which continue to exhibit loss development well beyond modeled expectations. In general, we continue to estimate that the dynamics and practices we refer to as “social inflation” will continue to adversely impact loss trends in Florida. Moreover, reforms of social inflation trends in Florida or other jurisdictions do not impact the increased risks attributable to changes in climate, demographics and other factors which we estimate are increasing the probability and severity of meteorologically-driven hazards.

In January 2020 media reports announced that the rating agency responsible for assigning financial stability ratings (“FSR”) to more than 40 Florida domestic insurers had warned that several carriers would be expected to receive downgrades due to deteriorating conditions in the state’s property insurance market, and that more than a dozen of such carriers could be downgraded in the next few months. Factors cited by this agency included what the firm deemed to be the cumulative impact of prolonged periods of inadequate rate revisions by these carriers, as well as state judicial rulings adversely impacting claims awards, including in respect of the natural disasters of recent years.

Further, in February 2020, legislation was introduced in the Florida Senate, Bill No. SB 1334, which would, if ultimately adopted, significantly expand the Florida Hurricane Catastrophe Fund for a statutory period of several years. We cannot assess yet its likelihood of passage or the impact it would have on the market or us if adopted. However, in general, expansion of state programs such as that contemplated by the bill reduce private market opportunities. In sum, taken together, these ongoing challenges have impacted our own risk selection criteria with respect to Florida exposures, and our estimation of the number of programs we believe are likely to be submitted at attractive risk-adjusted terms in respect of the June 2020 renewal.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are principally exposed to four types of market risk: interest rate risk; foreign currency risk; credit risk; and equity price risk. 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.

There were no material changes to these market risks, as disclosed in "Part II, Item 7A. Quantitative and Qualitative Disclosures about Market Risk" in our Form 10-K for the year ended December 31, 2019, during the three months ended March 31, 2020, except as described below. See "Part II, Item 7A. Quantitative and Qualitative Disclosures about Market Risk," in our Form 10-K for the year ended December 31, 2019 for a discussion of our exposure to these risks.

Due to the ongoing and rapidly evolving nature of the COVID-19 pandemic, a longer or more severe recession may increase the probability of credit losses in the Company's investment portfolio. Volatility in global financial markets, together with low or negative interest rates, reduced liquidity and a continued slowdown in global economic conditions, have adversely affected, and may continue to adversely affect, the Company's 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 recoverables.

ITEM 4. 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 March 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.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended March 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.

PART II OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

There have been no material changes to the legal proceedings previously disclosed in our Form 10-K for the year ended December 31, 2019.

ITEM 1A. RISK FACTORS

Except as set forth below, there have been no material changes to the risk factors previously disclosed in our Form 10-K for the year ended December 31, 2019. In addition, the effects of the events and circumstances described in the risk factors below may have the effect of heightening many of the risks contained in our Form 10-K.

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. 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 in the near term.

As a result, we expect the pandemic will have a significant effect on our business operations and current and future financial performance. We expect 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, or high unemployment levels will increase the probability of losses and may impact the demand for 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 potential insurance, reinsurance or investment exposure, or any other direct or indirect effects that the COVID-19 pandemic may have on our results of operations and financial condition. All of the foregoing events or potential outcomes, including in combination with other risk factors included in this Quarterly Report on Form 10-Q or our Annual Report on Form 10-K, 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, primarily in our casualty and specialty lines of business. Whether 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. For example, many governments and regulatory bodies are considering proposals that would retroactively change the terms of existing insurance contracts that generally exclude business interruption losses from pandemics. Should this happen, our reinsurance contracts may be interpreted to provide coverage for these business interruption losses, notwithstanding the fact that such losses fall outside of the terms and conditions of the original underlying contracts. These and ot her 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 pandemic, but these losses could be significant.

The COVID-19 pandemic has adversely impacted, and may continue to 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 has adversely impacted, and may continue to adversely impact, the value of our investment portfolio and our strategic investments. Prolonged low, or negative interest rates, reduced liquidity and a continued 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 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, including municipal bond markets. The recent market volatility has also caused significant increases in credit spreads, which may negatively impact our ability to access liquidity and capital markets financing, which may not be available or may only be available on unfavorable terms.

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 Operational Pensions Authority, the EU’s insurance regulator, has urged insurance companies to halt dividend payments in the wake of the pandemic. 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 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. An extended period of 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 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.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

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 November 10, 2017, 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 first 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 publicly announced repurchase program		Dollar maximum amount still available under repurchase program
	Shares purchased	Average price per share	Shares purchased	Average price per share	Shares purchased	Average price per share	(in thousands)
Beginning dollar amount available to be repurchased							$ 500,000
January 1 - 31, 2020	—	$ —	—	$ —	—	$ —	—
February 1 - 29, 2020	18,791	$ 197.53	18,791	$ 197.53	—	$ —	—
March 1 - 31, 2020	440,369	$ 155.62	34,687	$ 170.40	405,682	$ 154.36	(62,621)
Total	459,160	$ 157.34	53,478	$ 179.93	405,682	$ 154.36	$ 437,379

During the three months ended March 31, 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 current economic environment and to preserve capital for both risk and opportunity, the Company suspended share repurchases in March 2020. The Company has not engaged in any share repurchase activity during April 2020 or May 2020 to date. In the near term, the Company intends to prioritize capital for deployment into its business; however, we may resume repurchases at any time when we believe it is prudent to do so and without further notice.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

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	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.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and included in Exhibit 101)

SIGNATURES

Pursuant to the requirements 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.

RENAISSANCERE HOLDINGS LTD.

Date: May 7, 2020	/s/ Robert Qutub Robert Qutub Executive Vice President and Chief Financial Officer (Principal Financial Officer and Duly Authorized Officer)
Date: May 7, 2020	/s/ James C. Fraser James C. Fraser Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)

Exhibit 31.1

CERTIFICATION

I, Kevin J. O'Donnell, certify that:

1. I have reviewed this Form 10-Q 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: May 7, 2020

/s/ Kevin J. O'Donnell

Kevin J. O'Donnell

Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Robert Qutub, certify that:

1. I have reviewed this Form 10-Q 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: May 7, 2020

/s/ Robert Qutub

Robert Qutub

Chief Financial Officer

Exhibit 32.1

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-Q of RenaissanceRe Holdings Ltd. (the “Company”) for the quarter ended March 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
May 7, 2020

Exhibit 32.2

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-Q of RenaissanceRe Holdings Ltd. (the “Company”) for the quarter ended March 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
May 7, 2020