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

FORM 10-Q

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

For the quarterly period ended March 31, 2019

OR

o **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	**98-014-1974**
(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 Offices)	(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, Inc.
Series C 6.08% Preference Shares, Par Value $1.00 per share	RNR PRC	New York Stock Exchange, Inc.
Series E 5.375% Preference Shares, Par Value $1.00 per share	RNR PRE	New York Stock Exchange, Inc.
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, Inc.

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 Q No o

Indicate by check mark whether the registrant has submitted electronically, if any, 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 Q No o

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 Q, Accelerated filer o, Non-accelerated filer o (do not check if a smaller reporting company), Smaller reporting company o, Emerging growth company o

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. o

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

The number of Common Shares, par value US $1.00 per share, outstanding at May 3, 2019 was 44,159,306.

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 frequency and severity of catastrophic and other events we cover;
- the effectiveness of our claims and claim expense reserving process;
- risks that the TMR Stock Purchase (as defined herein) disrupts or distracts from current plans and operations;
- the ability to recognize the benefits of the TMR Stock Purchase;
- the amount of the costs, fees, expenses and charges related to the TMR Stock Purchase;
- our ability to maintain our financial strength ratings;
- the effect of climate change on our business;
- collection on claimed retrocessional coverage, and new retrocessional reinsurance being available on acceptable terms and providing the coverage that we intended to obtain;
- the effects of United States (“U.S.”) tax reform legislation and possible future tax reform legislation and regulations, including changes to the tax treatment of our shareholders or investors in our joint ventures or other entities we manage;
- the effect of emerging claims and coverage issues;
- soft reinsurance underwriting market conditions;
- 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;
- a contention by the 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 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;
- the performance of our investment portfolio;

- 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 the 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 effectively manage capital on behalf of investors in joint ventures or other entities we manage;
- foreign currency exchange rate fluctuations;
- 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;
- 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;
- 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; and
- our need to make many estimates and judgments in the preparation of our financial statements.

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, 2018, should not be construed as exhaustive. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to revise or update forward-looking statements to reflect new information, events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

PART I FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

	March 31, 2019 (Unaudited)	December 31, 2018 (Audited)
Assets		
Fixed maturity investments trading, at fair value – amortized cost \$9,442,370 at March 31, 2019 (December 31, 2018 – \$8,163,962)	\$ 9,473,160	\$ 8,088,870
Short term investments, at fair value	4,012,815	2,586,520
Equity investments trading, at fair value	389,937	310,252
Other investments, at fair value	878,373	784,933
Investments in other ventures, under equity method	98,563	115,172
Total investments	14,852,848	11,885,747
Cash and cash equivalents	1,021,275	1,107,922
Premiums receivable	2,753,098	1,537,188
Prepaid reinsurance premiums	1,086,027	616,185
Reinsurance recoverable	2,908,343	2,372,221
Accrued investment income	64,615	51,311
Deferred acquisition costs and value of business acquired	841,528	476,661
Receivable for investments sold	411,172	256,416
Other assets	353,543	135,127
Goodwill and other intangible assets	267,151	237,418
Total assets	\$ 24,559,600	\$ 18,676,196
Liabilities, Noncontrolling Interests and Shareholders' Equity		
Liabilities		
Reserve for claims and claim expenses	\$ 8,391,484	\$ 6,076,271
Unearned premiums	3,188,678	1,716,021
Debt	1,191,499	991,127
Reinsurance balances payable	3,009,492	1,902,056
Payable for investments purchased	679,596	380,332
Other liabilities	435,418	513,609
Total liabilities	16,896,167	11,579,416
Commitments and Contingencies		
Redeemable noncontrolling interests	2,109,400	2,051,700
Shareholders' Equity		
Preference shares: \$1.00 par value – 16,010,000 shares issued and outstanding at March 31, 2019 (December 31, 2018 – 16,010,000)	650,000	650,000
Common shares: \$1.00 par value – 44,159,375 shares issued and outstanding at March 31, 2019 (December 31, 2018 – 42,207,390)	44,159	42,207
Additional paid-in capital	543,889	296,099
Accumulated other comprehensive loss	(1,470)	(1,433)
Retained earnings	4,317,455	4,058,207
Total shareholders' equity attributable to RenaissanceRe	5,554,033	5,045,080
Total liabilities, noncontrolling interests and shareholders' equity	\$ 24,559,600	\$ 18,676,196

See accompanying notes to the consolidated financial statements

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

	Three months ended	
	March 31, 2019	March 31, 2018
Revenues		
Gross premiums written	$ 1,564,295	$ 1,159,652
Net premiums written	$ 929,031	$ 663,044
Increase in unearned premiums	(379,003)	(222,762)
Net premiums earned	550,028	440,282
Net investment income	81,462	56,476
Net foreign exchange (losses) gains	(2,846)	3,757
Equity in earnings of other ventures	4,661	857
Other income (loss)	3,171	(1,242)
Net realized and unrealized gains (losses) on investments	170,645	(82,144)
Total revenues	807,121	417,986
Expenses		
Net claims and claim expenses incurred	227,035	171,703
Acquisition expenses	123,951	97,711
Operational expenses	44,933	41,272
Corporate expenses	38,789	6,733
Interest expense	11,754	11,767
Total expenses	446,462	329,186
Income before taxes	360,659	88,800
Income tax (expense) benefit	(7,531)	3,407
Net income	353,128	92,207
Net income attributable to redeemable noncontrolling interests	(70,222)	(29,899)
Net income attributable to RenaissanceRe	282,906	62,308
Dividends on preference shares	(9,189)	(5,595)
Net income available to RenaissanceRe common shareholders	$ 273,717	$ 56,713
Net income available to RenaissanceRe common shareholders per common share – basic	$ 6.43	$ 1.42
Net income available to RenaissanceRe common shareholders per common share – diluted	$ 6.43	$ 1.42
Dividends per common share	$ 0.34	$ 0.33

See accompanying notes to the consolidated financial statements

RenaissanceRe Holdings Ltd. and Subsidiaries
Consolidated Statements of Comprehensive Income
For the three months ended March 31, 2019 and 2018
(in thousands of United States Dollars) (Unaudited)

	Three months ended	
	March 31, 2019	March 31, 2018
Comprehensive income		
Net income	$ 353,128	$ 92,207
Change in net unrealized losses on investments	(37)	(30)
Comprehensive income	353,091	92,177
Net income attributable to redeemable noncontrolling interests	(70,222)	(29,899)
Comprehensive income attributable to redeemable noncontrolling interests	(70,222)	(29,899)
Comprehensive income attributable to RenaissanceRe	$ 282,869	$ 62,278

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, 2019 and 2018
(in thousands of United States Dollars) (Unaudited)

	Three months ended	
	March 31, 2019	March 31, 2018
Preference shares		
Balance – January 1	$ 650,000	$ 400,000
Balance – March 31	650,000	400,000
Common shares		
Balance – January 1	42,207	40,024
Issuance of shares	1,739	—
Exercise of options and issuance of restricted stock awards	213	222
Balance – March 31	44,159	40,246
Additional paid-in capital		
Balance – January 1	296,099	37,355
Issuance of shares	248,259	—
Change in redeemable noncontrolling interests	(3)	56
Exercise of options and issuance of restricted stock awards	(466)	1,141
Balance – March 31	543,889	38,552
Accumulated other comprehensive (loss) income		
Balance – January 1	(1,433)	224
Change in net unrealized (losses) gains on investments	(37)	(30)
Balance – March 31	(1,470)	194
Retained earnings		
Balance – January 1	4,058,207	3,913,772
Net income	353,128	92,207
Net income attributable to redeemable noncontrolling interests	(70,222)	(29,899)
Dividends on common shares	(14,469)	(13,224)
Dividends on preference shares	(9,189)	(5,595)
Balance – March 31	4,317,455	3,957,261
Total shareholders' equity	$ 5,554,033	$ 4,436,253

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, 2019 and 2018
(in thousands of United States Dollars) (Unaudited)

	Three months ended	
	March 31, 2019	March 31, 2018
Cash flows provided by (used in) operating activities		
Net income	$ 353,128	$ 92,207
Adjustments to reconcile net income to net cash provided by (used in) operating activities		
Amortization, accretion and depreciation	(3,606)	13,740
Equity in undistributed earnings of other ventures	5,965	(314)
Net realized and unrealized (gains) losses on investments	(170,645)	82,144
Net unrealized gains included in net investment income	(2,969)	(1,465)
Change in:		
Premiums receivable	(578,175)	(380,008)
Prepaid reinsurance premiums	(330,044)	(261,375)
Reinsurance recoverable	12,619	14,309
Deferred acquisition costs	(58,861)	(50,459)
Reserve for claims and claim expenses	(92,303)	(167,681)
Unearned premiums	709,046	484,137
Reinsurance balances payable	837,333	769,858
Other	(304,339)	(632,442)
Net cash provided by (used in) operating activities	377,149	(37,349)
Cash flows used in investing activities		
Proceeds from sales and maturities of fixed maturity investments trading	4,600,808	2,318,859
Purchases of fixed maturity investments trading	(3,519,277)	(2,312,461)
Net (purchases) sales of equity investments trading	(4,601)	137
Net purchases of short term investments	(1,374,632)	(594,641)
Net purchases of other investments	(51,811)	(98,639)
Net purchases of investments in other ventures	(1,573)	(17,974)
Return of investment from investment in other ventures	11,250	—
Net purchase of the TMR Group Entities	(276,206)	—
Net cash used in investing activities	(616,042)	(704,719)
Cash flows provided by financing activities		
Dividends paid – RenaissanceRe common shares	(14,469)	(13,224)
Dividends paid – preference shares	(9,189)	(5,595)
Drawdown of RenaissanceRe Revolving Credit Facility	200,000	—
Net third party redeemable noncontrolling interest share transactions	(16,847)	52,759
Taxes paid on withholding shares	(6,957)	(7,034)
Net cash provided by financing activities	152,538	26,906
Effect of exchange rate changes on foreign currency cash	(292)	1,543
Net decrease in cash and cash equivalents	(86,647)	(713,619)
Cash and cash equivalents, beginning of period	1,107,922	1,361,592
Cash and cash equivalents, end of period	$ 1,021,275	$ 647,973

See accompanying notes to the consolidated financial statements

NOTE 1. ORGANIZATION

This report on Form 10-Q should be read in conjunction with the RenaissanceRe's Annual Report on Form 10-K ("Form 10-K") for the fiscal year ended December 31, 2018.

RenaissanceRe was formed under the laws of Bermuda on June 7, 1993. Together with its wholly owned and majority-owned subsidiaries and DaVinciRe (as defined below), 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, completed its previously announced purchase of all of the share capital of Tokio Millennium Re AG (now known as RenaissanceRe Europe AG) ("RenaissanceRe Europe"), Tokio Millennium Re (UK) Limited (now known as RenaissanceRe (UK) Limited) ("RenaissanceRe UK"), and their respective subsidiaries (collectively, the "TMR Group Entities") 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" for additional information regarding the TMR Stock Purchase.
- 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 and 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, 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.
- 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’s 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 primarily 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.
- Fibonacci Reinsurance Ltd. ("Fibonacci Re"), a Bermuda-domiciled SPI, was formed to provide 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.
- Effective December 22, 2017, 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-party investors investing into 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.
- Effective December 17, 2018, 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.

- In connection with the acquisition of the TMR Group Entities, the Company will manage Shima Reinsurance Ltd. (“Shima Re”), Norwood Re Ltd. (“Norwood Re”) and Blizzard Re Ltd. (“Blizzard Re”), which provide third-party investors with access to reinsurance risk formerly managed by the TMR Group Entities.

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, 2018, except as noted 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; and the Company’s deferred tax valuation allowance.

RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS

Leases

In February 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2016-02, *Leases* and subsequently issued a number of other ASUs to amend the guidance, each ultimately reflected in FASB Accounting Standards Codification (“ASC”) Topic *Leases*. FASB ASC Topic *Leases* requires, among other items, lessees to recognize lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under the previous guidance. FASB ASC Topic *Leases* was effective for public business entities for annual and interim periods beginning after December 15, 2018. The Company has adopted FASB ASC Topic *Leases* through the application of the modified retrospective transition approach. In addition, the Company employed certain practical expedients permitted under the guidance and utilized its incremental borrowing rate in determining the present value of lease payments, not yet paid. The adoption of this guidance did not have a material impact on the Company’s consolidated statements of operations and financial position. The Company determined it was not required to record a cumulative effect adjustment to opening retained earnings as of January 1, 2019.

Intra-Entity Transfers of Assets Other Than Inventory

In October 2016, the FASB issued ASU No. 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory* ("ASU 2016-16"). ASU 2016-16 requires entities to recognize the income tax consequences of intra-entity transfers of assets other than inventory when the transfers occur; this is a change from current guidance which prohibits the recognition of current and deferred income taxes until the underlying assets have been sold to outside entities. ASU 2016-16 was effective for public business entities for annual and interim periods beginning after December 15, 2018. The adoption of this guidance did not have a material impact on the Company's consolidated statements of operations and financial position.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS NOT YET ADOPTED

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. 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.

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; 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. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. 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.

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. The Company is currently evaluating the impact of this guidance; however, it is not expected to have a material impact on the Company's consolidated statements of operations and financial position.

NOTE 3. ACQUISITION OF TOKIO MILLENNIUM RE

Overview

The aggregate consideration for the TMR Stock Purchase, which closed on March 22, 2019, was $1.6 billion, consisting of cash, RenaissanceRe common shares and a special dividend from the TMR Group Entities, as described in more detail below. The aggregate consideration paid at closing for the TMR Stock Purchase was based on the Company's good faith estimate of the closing tangible book value of the TMR Group Entities and is subject to post-closing adjustment under the terms of the TMR Stock Purchase Agreement, which we expect to be completed no later than the third quarter of 2019.

In connection with the closing of the TMR Stock Purchase, Tokio, RenaissanceRe Europe and RenaissanceRe UK entered into a reserve development agreement whereby RenaissanceRe Europe and RenaissanceRe UK agreed to cede to Tokio, and Tokio agreed to indemnify and reimburse RenaissanceRe Europe and RenaissanceRe UK for, substantially all of RenaissanceRe Europe and RenaissanceRe UK's adverse development on stated reserves at time of the closing, including unearned premium reserves, subject to certain terms and conditions. The reserve development agreement provides the Company with indemnification on stated reserves, including unearned premium reserves, for RenaissanceRe Europe and RenaissanceRe UK, on a whole-account basis, and takes into consideration adverse performance across the Company's reportable segments. To the extent the combined performance of acquired reserves for claims and claim expenses or unearned premiums is worse than expected on an aggregate basis across reportable segments, the Company is indemnified under the terms of the reserve development agreement and would expect to collect under the reserve development agreement.

At closing, RenaissanceRe Europe and Tokio entered into a retrocessional agreement pursuant to which RenaissanceRe Europe ceded to Tokio all of its liabilities arising from certain stop loss reinsurance contracts RenaissanceRe Europe entered into with third party capital partners which were either in force as of the closing date or which incept prior to December 31, 2021.

In connection with the acquisition of the TMR Group Entities, during the first quarter of 2019, the Company recorded $25.5 million of corporate expenses associated with the acquisition, comprised of $12.9 million of transaction-related costs, $5.9 million of integration-related costs, and $6.7 million of compensation-related costs.

Purchase Price

The Company's total purchase price for the TMR Group Entities was calculated as follows:

Special Dividend		
Special Dividend paid to common shareholders of Tokio and holders of Tokio equity awards		$ 500,000
RenaissanceRe common shares		
Common shares issued by RenaissanceRe to Tokio	1,739,071	
Common share price of RenaissanceRe (1)	$ 143.75	
Market value of RenaissanceRe common shares issued by RenaissanceRe to Tokio		249,998
Cash consideration		
Cash consideration paid by RenaissanceRe as acquisition consideration		813,595
Total purchase price		1,563,593
Less: Special Dividend paid to Tokio		(500,000)
Net purchase price		$ 1,063,593

(1) RenaissanceRe common share price is based on the 30-day trailing volume weighted average price of $143.7539 as of market close on March 15, 2019, which approximates fair value.

Fair Value of Net Assets Acquired and Liabilities Assumed

The purchase price was allocated to the acquired assets and liabilities of the Company based on estimated fair values on March 22, 2019, the date the transaction closed, as detailed below. The Company recognized goodwill of $13.1 million primarily attributable to the excess of the purchase price over the fair value of the net assets of the acquired TMR Group Entities. There were no other adjustments to carried goodwill during the period ended March 31, 2019 reflected on the Company's consolidated balance sheet at March 31, 2019. The Company recognized identifiable finite lived intangible assets of $11.2 million, which will be amortized over a weighted average period of 10.5 years, identifiable indefinite lived intangible assets of $6.8 million, and certain other adjustments to the fair values of the assets acquired, liabilities assumed and shareholders' equity of the TMR Group Entities at March 22, 2019 as summarized in the table below:

Shareholders' equity of the TMR Group Entities at March 22, 2019	$ 1,032,961
Adjustments for fair value, by applicable balance sheet caption:	
Net deferred acquisition costs and value of business acquired	(56,788)
Net reserve for claims and claim expenses	67,782
Goodwill and intangible assets at March 22, 2019 of the TMR Group Entities	(6,569)
Total adjustments for fair value by applicable balance sheet caption before tax impact	4,425
Other assets - net deferred tax liability related to fair value adjustments and value of business acquired	(2,606)
Total adjustments for fair value by applicable balance sheet caption, net of tax	1,819
Adjustments for fair value of the identifiable intangible assets:	
Identifiable indefinite lived intangible assets (insurance licenses)	6,800
Identifiable finite lived intangible assets (top broker relationships and renewal rights)	11,200
Identifiable intangible assets before tax impact	18,000
Other assets - deferred tax liability on identifiable intangible assets	(2,281)
Total adjustments for fair value of the identifiable intangible assets and value of business acquired, net of tax	15,719
Total adjustments for fair value by applicable balance sheet caption, identifiable intangible assets and value of business acquired, net of tax	17,538
Shareholders' equity of the TMR Group Entities at fair value	1,050,499
Total net purchase price paid by RenaissanceRe	1,063,593
Excess purchase price over the fair value of net assets acquired assigned to goodwill	$ 13,094

An explanation of the significant fair value adjustments and related future amortization is as follows:

- Net deferred acquisition costs and value of business acquired ("VOBA") - to reflect the elimination of the TMR Group Entities' net deferred acquisition costs, partially offset by the establishment of the value of business acquired asset, which represents the present value of the expected underwriting profit within the unearned premiums liability, net of reinsurance, less costs to service the related policies and a risk premium. The adjustment for VOBA will be amortized to acquisition expenses over approximately two years, as the contracts for business in-force as of the acquisition date expire. VOBA at March 22, 2019 and at March 31, 2019 was $287.6 million;
- Reserve for claims and claim expenses - to reflect a decrease related to the present value of the net unpaid claims and claim expenses based on the estimated payout pattern, partially offset by an increase in net claims and claim expenses related to the estimated market based risk margin. The risk margin represents the estimated cost of capital required by a market participant to assume the net claims and claim expenses. This will be amortized using the projected discount and risk margin patterns of the net claims and claims expenses as of the acquisition date;
- Identifiable indefinite lived and finite lived intangible assets - to establish the fair value of identifiable intangible assets related to the acquisition of the TMR Group Entities described in detail below; and

- Other assets - to reflect the net deferred tax liability on identifiable intangible assets.

Identifiable intangible assets at March 22, 2019 and at March 31, 2019, consisted of the following, and are included in goodwill and other intangible assets on the Company’s consolidated balance sheet:

	Amount	Economic Useful Life
Top broker relationships	$ 10,000	10.0 years
Renewal rights	1,200	15.0 years
Insurance licenses	6,800	Indefinite
Net identifiable intangible assets at March 31, 2019 related to the acquisition of the TMR Group Entities	$ 18,000	

Amortization from the acquisition date, March 22, 2019, through March 31, 2019 was not material and, as a result, was not included in the Company's consolidated statements of operations for the three months ended March 31, 2019.

An explanation of the identifiable intangible assets is as follows:

- Top broker relationships - the value of the TMR Group Entities’ relationships with their top four brokers (Marsh & McLennan Companies, Inc., Aon plc, Willis Group Holdings Public Limited Company and Jardine Lloyd Thompson Group plc.) after taking into consideration the expectation of the renewal of these relationships and the associated expenses. These will be amortized on a straight-line basis over the economic useful life as of the acquisition date;
- Renewal rights - the value of policy renewal rights after taking into consideration written premium on assumed retention ratios and the insurance cash flows and the associated equity cash flows from these renewal policies over the expected life of the renewals. These will be amortized on a straight-line basis over the economic useful life as of the acquisition date; and
- Insurance licenses - the value of insurance licenses acquired which provide the ability to write reinsurance in all 50 states of the U.S. and the District of Columbia.

As part of the allocation of the purchase price, included in the adjustment to other assets in the table above is a deferred tax liability of $2.3 million related to the estimated fair value of the intangible assets recorded, as well as a net deferred tax liability of $2.6 million related to certain other adjustments to the fair values of the assets acquired, VOBA, liabilities assumed and shareholders’ equity. Other net deferred tax liabilities recorded primarily relate to differences between financial reporting and tax bases of the acquired assets and liabilities as of the acquisition date, March 22, 2019. The Company estimates that none of the goodwill that was recorded will be deductible for income tax purposes.

Financial Results

The operating activities of the TMR Group Entities from the closing date, March 22, 2019, through March 31, 2019 were not material, and as a result were not included in the Company’s consolidated statements of operations for the three months ended March 31, 2019. As at March 31, 2019, the Company’s consolidated balance sheet reflects the combined entities.

Taxation

A net deferred tax liability of $5.7 million was established in conjunction with the acquisition of the TMR Group Entities. A valuation allowance of $35.7 million has been recorded against the TMR Group Entities deferred tax assets, a predominant amount of which was related to the Company’s U.S. operations and was recorded prior to acquisition of the TMR Group Entities.

The acquisition of the TMR Group Entities had no effect on the Company’s overall income tax expense in the first quarter of 2019. In addition, the acquisition of the TMR Group Entities had no effect on the Company’s existing valuation allowance condition, as a valuation allowance continues to be provided against a substantial portion of the Company’s deferred tax assets in Ireland, the U.K., Singapore and Switzerland as these operations have produced historical GAAP taxable losses, among other facts. A small valuation allowance continues to be recorded against finite lived tax carryforwards in the U.S. operations.

Supplemental Pro Forma Information

The following table presents unaudited pro forma consolidated financial information for the three months ended March 31, 2019 and 2018 and assumes the acquisition of the TMR Group Entities occurred on January 1, 2018. The unaudited pro forma consolidated financial information is provided for informational purposes only and is not necessarily, and should not be assumed to be, an indication of the results that would have been achieved had the transaction been completed as of January 1, 2018 or that may be achieved in the future. The unaudited pro forma consolidated financial information does not give consideration to the impact of possible revenue enhancements, expense efficiencies, synergies or asset dispositions that may result from the acquisition of the TMR Group Entities. In addition, unaudited pro forma consolidated financial information does not include the effects of costs associated with any restructuring or integration activities resulting from the acquisition of the TMR Group Entities, as they are nonrecurring.

	Three months ended	
	March 31, 2019	March 31, 2018
Total revenues	$ 1,148,146	$ 725,269
Net income available to RenaissanceRe common shareholders	330,394	27,605

Among other adjustments, and in addition to the fair value adjustments and recognition of goodwill, VOBA and identifiable intangible assets noted above, other material nonrecurring pro forma adjustments directly attributable to the acquisition of the TMR Group Entities principally included certain adjustments to recognize transaction related costs, align accounting policies, and amortize fair value adjustments, VOBA, and identifiable definite lived intangible assets, net of related tax impacts.

Defined Benefit Pension Plan

The TMR Group Entities have a contributory defined benefit pension plan for certain employees, which was not material to RenaissanceRe's results of operations, financial condition or cash flows.

The plan offers mandatory benefits as prescribed by the applicable law, as well as voluntary benefits. The TMR Group Entities and the members of the plan contribute a defined percentage of salary to the pension arrangement. At retirement, the accumulated contributions are converted into a pension.

At March 22, 2019, the net balance sheet liability was $6.1 million, comprising $21.2 million of projected benefit obligation and $15.1 million of plan assets at fair value.

NOTE 4.INVESTMENTS

Fixed Maturity Investments Trading

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

	March 31, 2019	December 31, 2018
U.S. treasuries	$ 3,097,089	$ 3,331,411
Agencies	182,904	174,883
Municipal	256,967	6,854
Non-U.S. government	687,021	279,818
Non-U.S. government-backed corporate	286,331	160,063
Corporate	2,971,018	2,450,244
Agency mortgage-backed	955,616	817,880
Non-agency mortgage-backed	272,880	278,680
Commercial mortgage-backed	245,323	282,294
Asset-backed	518,011	306,743
Total fixed maturity investments trading (1)	$ 9,473,160	$ 8,088,870

(1) Included in total fixed maturity investments trading at March 31, 2019 was $2.2 billion of fixed maturity investments trading acquired as a result of the acquisition of the TMR Group Entities. See “Note 3. Acquisition of Tokio Millennium Re” for additional information related to the acquisition of the TMR Group Entities.

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, 2019	Amortized Cost	Fair Value
Due in less than one year	$ 746,898	$ 744,030
Due after one through five years	5,287,434	5,301,425
Due after five through ten years	1,147,028	1,154,682
Due after ten years	281,009	281,193
Mortgage-backed	1,460,090	1,473,819
Asset-backed	519,911	518,011
Total	$ 9,442,370	$ 9,473,160

Equity Investments Trading

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

	March 31, 2019	December 31, 2018
Financials	$ 222,604	$ 200,357
Communications and technology	66,428	42,333
Industrial, utilities and energy	37,574	24,520
Consumer	31,378	20,639
Healthcare	26,867	18,925
Basic materials	5,086	3,478
Total	$ 389,937	$ 310,252

Pledged Investments

At March 31, 2019, $6.0 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, 2018 - $5.7 billion). Of this amount, $1.9 billion is on deposit with, or in trust accounts for the benefit of, U.S. state regulatory authorities (December 31, 2018 - $2.0 billion).

Reverse Repurchase Agreements

At March 31, 2019, the Company held $99.9 million (December 31, 2018 - $3.7 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, 2019	March 31, 2018
Fixed maturity investments	$ 61,483	$ 45,643
Short term investments	11,844	5,304
Equity investments	1,027	698
Other investments		
Private equity investments	2,454	(434)
Other	7,245	8,023
Cash and cash equivalents	1,517	565
	85,570	59,799
Investment expenses	(4,108)	(3,323)
Net investment income	$ 81,462	$ 56,476

Net Realized and Unrealized Gains (Losses) on Investments

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

	Three months ended	
	March 31, 2019	March 31, 2018
Gross realized gains	$ 24,373	$ 4,583
Gross realized losses	(22,943)	(25,853)
Net realized gains (losses) on fixed maturity investments	1,430	(21,270)
Net unrealized gains (losses) on fixed maturity investments trading	103,922	(55,372)
Net realized and unrealized gains (losses) on investments-related derivatives	13,796	(4,364)
Net realized (losses) gains on equity investments trading sold during the period	(1,161)	234
Net unrealized gains (losses) on equity investments trading still held at reporting date	52,658	(1,372)
Net realized and unrealized gains (losses) on equity investments trading	51,497	(1,138)
Net realized and unrealized gains (losses) on investments	$ 170,645	$ (82,144)

NOTE 5.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, 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	$ 3,097,089	$ 3,097,089	$ —	$ —
Agencies	182,904	—	182,904	—
Municipal	256,967	—	256,967	—
Non-U.S. government	687,021	—	687,021	—
Non-U.S. government-backed corporate	286,331	—	286,331	—
Corporate	2,971,018	—	2,971,018	—
Agency mortgage-backed	955,616	—	955,616	—
Non-agency mortgage-backed	272,880	—	272,880	—
Commercial mortgage-backed	245,323	—	245,323	—
Asset-backed	518,011	—	518,011	—
Total fixed maturity investments	9,473,160	3,097,089	6,376,071	—
Short term investments	4,012,815	—	4,012,815	—
Equity investments trading	389,937	389,937	—	—
Other investments				
Catastrophe bonds	556,380	—	556,380	—
Private equity investments (1)	253,566	—	—	63,695
Senior secured bank loan funds (1)	15,674	—	—	—
Hedge funds (1)	11,585	—	—	—
Miscellaneous other investments (1)	41,168	—	—	—
Total other investments	878,373	—	556,380	63,695
Other assets and (liabilities)				
Assumed and ceded (re)insurance contracts (2)	11,827	—	—	11,827
Derivatives (3)	5,817	(2,067)	7,884	—
Total other assets and (liabilities)	17,644	(2,067)	7,884	11,827
	$ 14,771,929	$ 3,484,959	$ 10,953,150	$ 75,522

(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, 2019 was $47.6 million of other assets and $35.8 million of other liabilities. Of these amounts, $41.7 million of other assets and $21.7 million of other liabilities was reflected as a result of the acquisition of the TMR Group Entities. See "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of the TMR Group Entities.

(3) See "Note 14. Derivative Instruments" for additional information related to the fair value by type of contract, of derivatives entered into by the Company.

At December 31, 2018	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	$ 3,331,411	$ 3,331,411	$ —	$ —
Agencies	174,883	—	174,883	—
Municipal	6,854	—	6,854	—
Non-U.S. government	279,818	—	279,818	—
Non-U.S. government-backed corporate	160,063	—	160,063	—
Corporate	2,450,244	—	2,450,244	—
Agency mortgage-backed	817,880	—	817,880	—
Non-agency mortgage-backed	278,680	—	278,680	—
Commercial mortgage-backed	282,294	—	282,294	—
Asset-backed	306,743	—	306,743	—
Total fixed maturity investments	8,088,870	3,331,411	4,757,459	—
Short term investments	2,586,520	—	2,586,520	—
Equity investments trading	310,252	310,252	—	—
Other investments				
Catastrophe bonds	516,571	—	516,571	—
Private equity investments (1)	242,647	—	—	54,545
Senior secured bank loan funds (1)	14,482	—	—	—
Hedge funds (1)	11,233	—	—	—
Total other investments	784,933	—	516,571	54,545
Other assets and (liabilities)				
Assumed and ceded (re)insurance contracts (2)	(8,359)	—	—	(8,359)
Derivatives (3)	12,399	484	11,915	—
Total other assets and (liabilities)	4,040	484	11,915	(8,359)
	$ 11,774,615	$ 3,642,147	$ 7,872,465	$ 46,186

(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, 2018 was $5.0 million of other assets and $13.3 million of other liabilities.

(3) See “Note 14. 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, 2019, the Company's U.S. treasuries fixed maturity investments were primarily priced by pricing services and had a weighted average yield to maturity of 2.3% and a weighted average credit quality of AA (December 31, 2018 - 2.5% 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, 2019, the Company's agency fixed maturity investments had a weighted average yield to maturity of 2.8% and a weighted average credit quality of AA (December 31, 2018 - 3.0% 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.

Municipal

Level 2 - At March 31, 2019, the Company's municipal fixed maturity investments had a weighted average yield to maturity of 3.4% and a weighted average credit quality of AA (December 31, 2018 - 4.8% and A, respectively). The Company's municipal fixed maturity investments are primarily priced by pricing services. When evaluating these securities, the pricing services gather information regarding the security from third-party sources such as trustees, paying agents or issuers. 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 over widely accepted market benchmarks.

Non-U.S. government

Level 2 - At March 31, 2019, the Company's non-U.S. government fixed maturity investments had a weighted average yield to maturity of 1.6% and a weighted average credit quality of AA (December 31, 2018 - 2.7% and AAA, 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, 2019, the Company’s non-U.S. government-backed corporate fixed maturity investments had a weighted average yield to maturity of 2.1% and a weighted average credit quality of AA (December 31, 2018 - 2.8% 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, 2019, the Company’s corporate fixed maturity investments principally consisted of U.S. and international corporations and had a weighted average yield to maturity of 3.6% and a weighted average credit quality of A (December 31, 2018 - 4.9% 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, 2019, the Company’s agency mortgage-backed fixed maturity investments included agency residential mortgage-backed securities with a weighted average yield to maturity of 3.1%, a weighted average credit quality of AA and a weighted average life of 5.9 years (December 31, 2018 - 3.5%, AA and 7.1 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, 2019, the Company’s non-agency prime residential mortgage-backed fixed maturity investments had a weighted average yield to maturity of 4.2%, a weighted average credit quality of non-investment grade, and a weighted average life of 5.3 years (December 31, 2018 - 4.4%, non-investment grade and 4.7 years, respectively). The Company’s non-agency Alt-A fixed maturity investments held at March 31, 2019 had a weighted average yield to maturity of 4.2%, a weighted average credit quality of non-investment grade and a weighted average life of 6.8 years (December 31, 2018 - 4.7%, 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, 2019, the Company's commercial mortgage-backed fixed maturity investments had a weighted average yield to maturity of 3.2%, a weighted average credit quality of AAA, and a weighted average life of 4.6 years (December 31, 2018 - 3.6%, AAA and 5.0 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, 2019, the Company's asset-backed fixed maturity investments had a weighted average yield to maturity of 3.8%, a weighted average credit quality of AAA and a weighted average life of 3.2 years (December 31, 2018 - 4.3%, 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, 2019, the Company's short term investments had a weighted average yield to maturity of 2.1% and a weighted average credit quality of AAA (December 31, 2018 - 2.1% 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, 2019	Fair Value (Level 3)	Valuation Technique	Unobservable Inputs	Low	High	Weighted Average or Actual
Other investments						
Private equity investment	$ 10,174	External valuation model	Indicative pricing	n/a	n/a	$ 101.74
Private equity investments	53,521	Internal valuation model	Liquidity discount	n/a	n/a	12.5%
Total other investments	63,695					
Other assets and (liabilities)						
Assumed and ceded (re)insurance contracts	523	Internal valuation model	Bond price	$ 100.64	$ 107.97	$ 104.71
			Liquidity discount	n/a	n/a	1.3%
Assumed and ceded (re)insurance contracts	(8,356)	Internal valuation model	Net undiscounted cash flows	n/a	n/a	$ 10,413
			Expected loss ratio	n/a	n/a	39.5%
			Discount rate	n/a	n/a	2.2%
Assumed and ceded (re)insurance contracts	19,660	Internal valuation model	Expected loss ratio	n/a	n/a	0.0%
Total other assets and (liabilities)	11,827					
Total other assets and (liabilities) measured at fair value on a recurring basis using Level 3 inputs	$ 75,522					

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, 2019	$ 54,545	$ (8,359)	$ 46,186
Total realized and unrealized gains			
Included in other income (loss)	(1,111)	1,093	(18)
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 the TMR Group Entities, measured at fair value on a recurring basis using Level 3 inputs at March 22, 2019. See "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of the TMR Group Entities.

		Other assets and (liabilities)
Balance - January 1, 2018	$	(2,952)
Total realized and unrealized gains		
Included in other income (loss)		206
Purchases		(34)
Balance - March 31, 2018	$	(2,780)

Other investments

Private equity investments

Level 3 - At March 31, 2019, the Company's other investments included a $10.2 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, 2019, the Company's other investments included $53.5 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. These unobservable inputs in isolation can cause significant increases or decreases in fair value. The discount rates are applied to each of the comparable net tangible book value multiples which are used to determine fair value. The comparable net tangible book value multiples are observable and based on the trading multiples of public industry peers of the underlying entity. Generally, an increase in the liquidity discount rate would result in a decrease in the fair value of this private equity investment.

Other assets and liabilities

Assumed and ceded (re)insurance contracts

Level 3 - At March 31, 2019, the Company had a $0.5 million net asset 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, 2019, the Company had a $8.4 million net liability related to assumed and ceded (re)insurance contracts accounted for at fair value, with the fair value obtained through the use of 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, 2019, the Company had a $19.7 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, 2019 were debt obligations of $1.2 billion (December 31, 2018 - $991.1 million). At March 31, 2019, the Company's debt obligations included $200.0 million outstanding under the Company's revolving credit facility. See "Note 8. Debt and Credit Facilities" for additional information regarding the revolving credit facility. At March 31, 2019, the fair value of the Company's debt obligations was $1.2 billion (December 31, 2018 – $974.7 million).

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.

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, 2019	December 31, 2018
Other investments	$ 878,373	$ 784,933
Other assets	$ 47,596	$ 4,968
Other liabilities	$ 35,769	$ 13,327

Included in net investment income for the three months ended March 31, 2019 were net unrealized gains of $3.0 million, related to the changes in fair value of other investments (2018 – gains of $1.5 million). Included in other income (loss) for the three months ended March 31, 2019 were net unrealized gains of $Nil related to the changes in the fair value of other assets and liabilities (2018 - $Nil).

Measuring the Fair Value of Other Investments Using Net Asset Valuations

The table below shows the Company's portfolio of other investments measured using net asset valuations as a practical expedient:

At March 31, 2019	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period (Minimum Days)	Redemption Notice Period (Maximum Days)
Private equity investments	$ 189,871	$ 381,143	See below	See below	See below
Senior secured bank loan funds	15,674	17,209	See below	See below	See below
Hedge funds	11,585	—	See below	See below	See below
Miscellaneous other investments	41,168	—	See below	See below	See below
Total other investments measured using net asset valuations	$ 258,298	$ 398,352			

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, 2019, the Company had $15.7 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, 2019, the Company had $11.6 million of investments in hedge funds that pursue multiple strategies, however, primarily focused on global credit opportunities which are generally redeemable at the option of the shareholder.

Miscellaneous other investments - At March 31, 2019, the Company had $41.2 million of miscellaneous other investments principally invested in fixed income funds primarily focused on bond and money market investments which are redeemable at the option of the shareholder.

NOTE 6.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, 2019		March 31, 2018	
Premiums written				
Direct	$	110,968	$	85,167
Assumed		1,453,327		1,074,485
Ceded		(635,264)		(496,608)
Net premiums written	$	929,031	$	663,044
Premiums earned				
Direct	$	89,814	$	70,032
Assumed		765,433		605,483
Ceded		(305,219)		(235,233)
Net premiums earned	$	550,028	$	440,282
Claims and claim expenses				
Gross claims and claim expenses incurred	$	338,119	$	225,742
Claims and claim expenses recovered		(111,084)		(54,039)
Net claims and claim expenses incurred	$	227,035	$	171,703

At March 31, 2019, the Company's reinsurance recoverable balance was $2.9 billion (December 31, 2018 - $2.4 billion). Included in the Company's reinsurance recoverable balance at March 31, 2019 is $548.7 million of reinsurance recoverable acquired as a result of the acquisition of the TMR Group Entities. See "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of the TMR Group Entities. Of the Company's reinsurance recoverable balance at March 31, 2019, 65.8% is fully collateralized by our reinsurers, 32.1% is recoverable from reinsurers rated A- or higher by major rating agencies and 2.1% is recoverable from reinsurers rated lower than A- by major rating agencies (December 31, 2018 - 60.8%, 38.0% and 1.2%, respectively). The reinsurers with the three largest balances accounted for 12.0%, 6.9% and 6.5%, respectively, of the Company's reinsurance recoverable balance at March 31, 2019 (December 31, 2018 - 15.5%, 6.7% and 6.5%, respectively). The valuation allowance recorded against reinsurance recoverable was $8.5 million at March 31, 2019 (December 31, 2018 - $9.0 million). The impact of the acquisition of the TMR Group Entities on the Company's valuation allowance from the acquisition date, March 22, 2019, through March 31, 2019 was not material and as a result was not reflected in the Company's consolidated statements of operations and financial position for the quarter ended March 31, 2019. The three largest company-specific components of the valuation allowance represented 17.6%, 13.2% and 12.0%, respectively, of the Company's total valuation allowance at March 31, 2019 (December 31, 2018 - 16.2%, 14.8% and 12.3%, respectively).

NOTE 7. 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, 2019	Case Reserves	Additional Case Reserves	IBNR	Total
Property	$ 1,243,455	$ 1,598,283	$ 844,681	$ 3,686,419
Casualty and Specialty	1,454,164	121,165	3,125,166	4,700,495
Other	1,404	—	3,166	4,570
Total (1)	$ 2,699,023	$ 1,719,448	$ 3,973,013	$ 8,391,484
At December 31, 2018				
Property	$ 690,718	$ 1,308,307	$ 1,087,229	$ 3,086,254
Casualty and Specialty	771,537	116,877	2,096,979	2,985,393
Other	1,458	—	3,166	4,624
Total	$ 1,463,713	$ 1,425,184	$ 3,187,374	$ 6,076,271

(1) Included in the Company's reserves for claims and claim expenses balance at March 31, 2019 is $2.4 billion of gross reserves for claims and claim expenses, at fair value, acquired as a result of the acquisition of the TMR Group Entities. See "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of the TMR Group Entities.

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

Three months ended March 31,	2019	2018
Net reserves as of January 1	$ 3,704,050	$ 3,493,778
Net incurred related to:		
Current year	231,341	203,038
Prior years	(4,306)	(31,335)
Total net incurred	227,035	171,703
Net paid related to:		
Current year	8,149	9,050
Prior years	300,120	328,129
Total net paid	308,269	337,179
Amounts acquired (1)	1,858,775	—
Foreign exchange	1,550	12,104
Net reserves as of March 31	5,483,141	3,340,406
Reinsurance recoverable as of March 31	2,908,343	1,572,321
Gross reserves as of March 31	$ 8,391,484	$ 4,912,727

(1) Represents the fair value of the TMR Group Entities reserves for claims and claim expenses, net of reinsurance recoverables, acquired at March 22, 2019. See "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of the TMR Group Entities.

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 for changes in claims and claim expenses that impact DaVinciRe, 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,	**2019** (Favorable) adverse development	**2018** (Favorable) adverse development
Property	$ 1,877	$ (27,562)
Casualty and Specialty	(6,202)	(3,791)
Other	19	18
Total favorable development of prior accident years net claims and claim expenses	$ (4,306)	$ (31,335)

Changes to prior year estimated claims reserves increased the Company's net income by $4.3 million during the three months ended March 31, 2019, (2018 - increased the Company's net income by $31.3 million), excluding the consideration of changes in reinstatement, adjustment or other premium items, profit commissions, redeemable noncontrolling interest - DaVinciRe 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,	**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 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 comprised of net favorable development of $12.3 million related to large catastrophe events and net adverse development of $14.2 million related to small catastrophe events. Included in net favorable development of prior accident years net claims and claim expenses from large events was $10.9 million of net decreases in the estimated ultimate losses associated with Hurricanes Harvey, Irma and Maria, the Mexico City Earthquake, the wildfires in California during the fourth quarter of 2017 and certain losses associated with aggregate loss contracts (collectively, the "2017 Large Loss Events"). The Company's Property segment also experienced net adverse development of $14.2 million associated number of other small catastrophe events and attritional loss movements primarily driven by increases in the estimated ultimate net claims and claim expenses within the Company's other property class of business.

Three months ended March 31,	**2018**
	(Favorable) adverse development
Catastrophe net claims and claim expenses	
Large catastrophe events	
2017 Large Loss Events	$ (27,109)
Other	(4,258)
Total large catastrophe events	(31,367)
Small catastrophe events and attritional loss movements	
Other small catastrophe events and attritional loss movements	3,805
Total small catastrophe events and attritional loss movements	3,805
Total net favorable development of prior accident years net claims and claim expenses	$ (27,562)

The net favorable development of prior accident years net claims and claim expenses within the Company's Property segment in the three months ended March 31, 2018 of $27.6 million was comprised of net favorable development of $31.4 million related to large catastrophe events and net adverse development of $3.8 million related to small catastrophe events. Included in net favorable development of prior accident years net claims and claim expenses from large events was $27.1 million of net decreases in the estimated ultimate losses associated with Hurricanes Harvey, Irma and Maria, the Mexico City Earthquake, the wildfires in California during the fourth quarter of 2017 and certain losses associated with aggregate loss contracts (collectively, the "2017 Large Loss Events"). In addition, the Company's Property segment experienced net favorable development of $0.5 million associated with a number of other large and small catastrophe 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,	**2019**	**2018**
	(Favorable) adverse development	(Favorable) adverse development
Actuarial methods	$ (6,202)	$ (3,791)
Total favorable development of prior accident years net claims and claim expenses	$ (6,202)	$ (3,791)

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 and $3.8 million in the three months ended March 31, 2019 and 2018, respectively, each 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 8. DEBT AND CREDIT FACILITIES

Except as noted below, 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, 2018.

Debt Obligations

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

	March 31, 2019		December 31, 2018	
	Fair Value	Carrying Value	Fair Value	Carrying Value
3.450% Senior Notes due 2027	294,450	295,920	283,680	295,797
3.700% Senior Notes due 2025	297,801	297,779	292,557	297,688
5.750% Senior Notes due 2020	256,055	249,683	255,938	249,602
4.750% Senior Notes due 2025 (DaVinciRe) (1)	145,671	148,117	142,539	148,040
Total senior notes	993,977	991,499	974,714	991,127
RenaissanceRe Revolving Credit Facility (2)	200,000	200,000	—	—
Total debt	$ 1,193,977	$ 1,191,499	$ 974,714	$ 991,127

(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 drawn amount of the Company's revolving credit facility is included on the Company's consolidated balance sheets under debt and is also included in the table below as part of the Company's significant credit facilities. The amount was drawn in connection with the TMR Stock Purchase. See "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the TMR Stock Purchase.

3.600% Senior Notes Due 2029

On April 2, 2019, the Company issued $400.0 million of its 3.600% Senior Notes due April 15, 2029. The net proceeds from this offering were used to repay, in full, the $200.0 million outstanding under the Company's revolving credit facility at March 31, 2019, which the Company used to partially fund the purchase price for the TMR Stock Purchase, and the remainder of the net proceeds will be used for general corporate purposes. See "Note 3. Acquisition of Tokio Millennium Re" for additional information regarding the acquisition of the TMR Group Entities and "Note 17. Subsequent Events" for additional information regarding the issuance, subsequent to March 31, 2019, of the Company's 3.600% Senior Notes Due 2029.

Credit Facilities

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

At March 31, 2019		Issued or Drawn
RenaissanceRe Revolving Credit Facility (1)	$	200,000
Uncommitted Standby Letter of Credit Facility with Wells Fargo		32,009
Secured Letter of Credit Facility with Citibank Europe		238,956
Renaissance Reinsurance FAL Facility		255,000
Mizuho Letters of Credit (2)		385,975
Mitsubishi Letters of Credit (2)		205,956
Credit Suisse Letter of Credit Facility		75,097
Uncommitted, Unsecured Letter of Credit Facility with Citibank Europe (3)		—
Total credit facilities in U.S. dollars	$	1,392,993
Specialty Risks FAL Facility (3)	£	—
Total credit facilities in pound sterling	£	—

(1) The drawn amount of the Company's revolving credit facility is included on the Company's consolidated balance sheet under debt and is also included in the table above as part of the Company's significant credit facilities. The amount was drawn as a result of the acquisition of the TMR Group Entities. See "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of the TMR Group Entities.

(2) These letters of credit were transferred to the Company in connection with the acquisition of the TMR Group Entities. See below under "TMR Group Entities Letters of Credit" for additional information and "Note 3. Acquisition of Tokio Millennium Re" for additional information related to the acquisition of the TMR Group Entities.

(3) At March 31, 2019, no amounts were issued or drawn under these facilities.

Uncommitted, Unsecured Letter of Credit Facility with Citibank Europe

On March 22, 2019, Renaissance Reinsurance, RenaissanceRe Specialty U.S., Renaissance Reinsurance U.S. and RenaissanceRe Europe and Citibank Europe Plc ("CEP") entered into a Master Agreement for Issuance of Payment Instruments (the "Master Agreement") and a Facility Letter for Issuance of Payment Instruments (the "Facility Letter" and, together with the Master Agreement, the "Citi Unsecured Facility"). On April 26, 2019, RenaissanceRe UK Limited (together with Renaissance Reinsurance, RenaissanceRe Specialty U.S., Renaissance Reinsurance U.S. and RenaissanceRe Europe, the "Citi Unsecured Applicants") became a party to the Citi Unsecured Facility.

The Citi Unsecured Facility is an uncommitted, unsecured letter of credit facility pursuant to which CEP or one of its correspondents may issue standby letters of credit or similar instruments in multiple currencies for the account of one or more of the Citi Unsecured Applicants. The obligations of the Citi Unsecured Applicants under the Citi Unsecured Facility are guaranteed by the Company.

In the Master Agreement, each Citi Unsecured Applicant makes representations and warranties that are customary for facilities of this type and agrees that it will comply with certain informational and other customary undertakings. The Master Agreement contains events of default customary for facilities of this type. In the case of an event of default under the Citi Unsecured Facility, CEP may exercise certain remedies, including requiring that the relevant Citi Unsecured Applicant pledge cash collateral in an amount equal to the maximum actual and contingent liability of the issuing bank under the letters of credit and similar instruments issued for such Citi Unsecured Applicant under the Citi Unsecured Facility, and taking certain actions with respect to the collateral pledged by such Citi Unsecured Applicant (including the sale thereof). In addition, CEP may require that the relevant Citi Unsecured Applicant pledge cash collateral if certain minimum ratings are not satisfied.

Credit Suisse Letter of Credit Facility

On March 22, 2019, RenaissanceRe Europe, the Company and Credit Suisse (Switzerland) Ltd. (“CS”) entered into an amended and restated letter of credit facility agreement (the “CS A&R LC Agreement”). The CS A&R LC Agreement is a $125 million committed, unsecured letter of credit facility pursuant to which CS (or any other fronting bank acting on behalf of CS) may issue letters of credit or similar instruments in multiple currencies for the account of RenaissanceRe Europe. The obligations of RenaissanceRe Europe under the CS A&R LC Agreement are guaranteed by the Company.

In the CS A&R LC Agreement, RenaissanceRe Europe and the Company make representations, warranties and covenants that are customary for facilities of this type, and agree to comply with certain informational and other customary undertakings. The CS A&R LC Agreement also contains certain financial covenants applicable to the Company, including the requirement to maintain the ratio of consolidated debt to capital of not more than 0.35:1, to maintain a minimum consolidated net worth initially of approximately $3.0 billion, subject to an annual adjustment, and to maintain the Company’s credit rating with S&P and A.M. Best of at least A-.

The CS A&R LC Agreement contains events of default customary for facilities of this type. At any time on or after the occurrence of an event of default, CS may exercise remedies, including canceling the commitment, requiring that RenaissanceRe Europe pledge cash collateral in an amount equal to the maximum liability of the issuing bank under the letters of credit and similar instruments issued under the CS A&R LC Agreement, and demanding that RenaissanceRe Europe procure the release by the beneficiaries of the letters of credit and similar instruments issued under the CS A&R LC Agreement.

Renaissance Reinsurance Funds at Lloyd’s Letter of Credit Facility

Effective March 7, 2019, the stated amount of the Funds at Lloyd’s letter of credit issued to Renaissance Reinsurance pursuant to the letter of credit facility with Bank of Montreal, CEP and ING Bank N.V., London Branch as lenders, evidenced by a letter of credit reimbursement agreement dated as of November 23, 2015 (the “Renaissance Reinsurance FAL Facility”), was increased from $180.0 million to $255.0 million.

TMR Group Entities Letters of Credit

In connection with the acquisition of the TMR Group Entities, certain letters of credit were transferred to the Company, as follows: (a) Mizuho Bank, Ltd. issued certain letters of credit for the account of RenaissanceRe Europe pursuant to a Letter of Credit and Reimbursement Agreement, dated as of May 14, 2012, as previously amended, (b) The Bank of Tokyo-Mitsubishi UFJ Ltd., Düsseldorf Branch, issued certain letters of credit for the account of RenaissanceRe Europe pursuant to a Committed Revolving Standby Letter of Credit Agreement, dated as of September 29, 2017, and (c) The Bank of Tokyo-Mitsubishi UFJ, Ltd. issued certain letters of credit for the account of RenaissanceRe UK pursuant to a Facility Letter, dated as of December 21, 2006. The parties have agreed that no new letters of credit will be issued under these facilities.

NOTE 9.NONCONTROLLING INTERESTS

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

	March 31, 2019	December 31, 2018
Redeemable noncontrolling interest - DaVinciRe	$ 1,097,245	$ 1,034,946
Redeemable noncontrolling interest - Medici	406,958	416,765
Redeemable noncontrolling interest - Vermeer	605,197	599,989
Redeemable noncontrolling interests	$ 2,109,400	$ 2,051,700

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

	Three months ended	
	March 31, 2019	March 31, 2018
Redeemable noncontrolling interest - DaVinciRe	$ 62,533	$ 20,953
Redeemable noncontrolling interest - Medici	2,481	8,946
Redeemable noncontrolling interest - Vermeer	5,208	—
Net income attributable to redeemable noncontrolling interests	$ 70,222	$ 29,899

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 22.1% at March 31, 2019 (December 31, 2018 - 22.1%).

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.

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, 2019	March 31, 2018
Beginning balance	$ 1,034,946	$ 1,011,659
Redemption of shares from redeemable noncontrolling interest, net of adjustments	(234)	(69)
Net income attributable to redeemable noncontrolling interest	62,533	20,953
Ending balance	$ 1,097,245	$ 1,032,543

Redeemable Noncontrolling Interest - RenaissanceRe Medici Fund Ltd. ("Medici")

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.

2018

During the three months ended March 31, 2018, third-party investors subscribed for $99.7 million and redeemed $0.7 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, 2018.

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, 2019	**March 31, 2018**
Beginning balance	$ 416,765	$ 284,847
Redemption of shares from redeemable noncontrolling interest, net of adjustments	(15,884)	(711)
Sale of shares to redeemable noncontrolling interests	3,596	99,739
Net income attributable to redeemable noncontrolling interest	2,481	8,946
Ending balance	$ 406,958	$ 392,821

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 PGGM retains 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 third parties 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.

2018

During the fourth quarter of 2018, a third-party investor 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 activity in redeemable noncontrolling interest – Vermeer is detailed in the table below:

	Three months ended	
	March 31, 2019	**March 31, 2018**
Beginning balance	$ 599,989	$ —
Net income attributable to redeemable noncontrolling interest	5,208	—
Ending balance	$ 605,197	$ —

NOTE 10.VARIABLE INTEREST ENTITIES

Upsilon RFO

Upsilon RFO is a managed joint venture and a Bermuda domiciled SPI that was formed by the Company primarily 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.

2018

During 2018, $856.7 million of Upsilon RFO non-voting preference shares were issued to existing investors, including $109.8 million to the Company. At December 31, 2018, the Company's participation in the risks assumed by Upsilon RFO was 14.0%.

Payments for certain of the shares issued during 2018 were received by the Company prior to January 1, 2018 were included in other liabilities on the Company's consolidated balance sheet at December 31, 2017, and in other operating cash flows on the Company's consolidated statements of cash flows for 2017. During 2018, 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 2018.

2019

During the three months ended March 31, 2019, $502.8 million of Upsilon RFO non-voting preference shares were issued to existing investors, including $100.0 million to the Company. At March 31, 2019, the Company's participation in the risks assumed by Upsilon RFO was 16.7%.

At March 31, 2019, the Company's consolidated balance sheet included total assets and total liabilities of Upsilon RFO of $2.7 billion and $2.7 billion, respectively (December 31, 2018 - $2.2 billion and $2.2 billion, 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 $1.4 million at March 31, 2019 (December 31, 2018 - $6.0 million).

Renaissance Reinsurance entered into ceded reinsurance contracts with Fibonacci Re with ceded premiums of $6 thousand and ceded premiums earned of $6 thousand during the three months ended March 31, 2019 (2018 - $4.1 million and $1.2 million, respectively). During the three months ended March 31, 2019, Renaissance Reinsurance ceded $5.6 million of net claims and claim expenses to Fibonacci Re and as of March 31, 2019 had a net reinsurance recoverable of $5.6 million from Fibonacci Re.

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, 2019 the Company has invested $1.6 million in Langhorne Holdings (December 31, 2018 - $1.3 million), a company that owns and manages certain reinsurance entities within Langhorne. In addition, as of March 31, 2019 the Company has invested $0.1 million in Langhorne Partners (December 31, 2018 - $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.

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 the 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 third parties is recorded in the consolidated statements of operations as net income attributable to redeemable noncontrolling interests. See "Note 9. 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, 2019, the Company’s consolidated balance sheet included total assets and total liabilities of Vermeer of $668.8 million and $63.6 million, respectively (December 31, 2018 - $600.4 million and $0.4 million, respectively). In addition, the Company’s consolidated balance sheet included redeemable noncontrolling interests associated with Vermeer of $605.2 million at March 31, 2019 (December 31, 2018 - $600.0 million).

Shima Re

Shima Re was acquired on March 22, 2019 in connection with the acquisition of the TMR Group Entities. See “Note 3. Acquisition of Tokio Millennium Re” for additional information related to the acquisition of the TMR Group Entities. Shima Re is a Bermuda domiciled Class 3 insurer registered as a segregated accounts company formed to establish segregated accounts for the purpose of underwriting specified insurance and reinsurance agreements. The obligations of each segregated account are funded through the issuance of non-voting preference shares or principal-at-risk notes to third-party investors. Shima Re writes reinsurance business in areas that include all natural perils, property catastrophe, marine and energy. 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.

Shima Re is considered a VIE as it has voting rights that are not proportional to its participating rights. The Company owns the voting shares in the general account of Shima Re and has power over the activities that most significantly impact the economic performance of such general account. As a result, the Company consolidates the financial position and results of operations of the general account. The Company also evaluated its relationship with the segregated accounts of Shima Re and concluded it is not the primary beneficiary of such segregated accounts, as it does not have the obligation to absorb losses of the segregated accounts of Shima Re that could potentially be significant to the segregated assets of Shima Re. As a result, the Company does not consolidate the financial position or results of operations of the segregated accounts. Other than the Company’s investment in the general account of Shima Re, it has not provided any financial or other support to Shima Re that it was not contractually required to provide.

Norwood Re

Norwood Re was acquired on March 22, 2019 in connection with the acquisition of the TMR Group Entities. See “Note 3. Acquisition of Tokio Millennium Re” for additional information related to the acquisition of the TMR Group Entities. 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 AG 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. Norwood Re is authorized to write property catastrophe, aviation, crop, terrorism and marine reinsurance. Norwood Re may also write natural catastrophe derivatives. 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 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 11.SHAREHOLDERS’ EQUITY

Dividends

The Board of Directors of RenaissanceRe declared dividends, payable to common shareholders of record on March 15, 2019 of $0.34 per common share, and the Company paid the dividends on March 29, 2019.

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, 2019, the Company paid $9.2 million in preference share dividends (2018 - $5.6 million) and $14.5 million in common share dividends (2018 - $13.2 million).

TMR Stock Purchase

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” for additional information related to the acquisition of the TMR Group Entities.

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 three months ended March 31, 2019, the Company did not repurchase any of its common shares. At March 31, 2019, $500.0 million remained available for repurchase under the share repurchase program.

NOTE 12.EARNINGS PER SHARE

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

(common shares in thousands)	Three months ended March 31, 2019	Three months ended March 31, 2018
Numerator:		
Net income available to RenaissanceRe common shareholders	$ 273,717	$ 56,713
Amount allocated to participating common shareholders (1)	(3,121)	(546)
Net income allocated to RenaissanceRe common shareholders	$ 270,596	$ 56,167
Denominator:		
Denominator for basic income per RenaissanceRe common share - weighted average common shares	42,065	39,552
Per common share equivalents of employee stock options and restricted shares	26	47
Denominator for diluted income per RenaissanceRe common share - adjusted weighted average common shares and assumed conversions	42,091	39,599
Net income available to RenaissanceRe common shareholders per common share – basic	$ 6.43	$ 1.42
Net income available to RenaissanceRe common shareholders per common share – diluted	$ 6.43	$ 1.42

(1) Represents earnings attributable to holders of unvested restricted shares issued pursuant to the Company's 2001 Stock Incentive Plan, 2010 Performance-Based Equity Incentive Plan, 2016 Long-Term Incentive Plan and to the Company's non-employee directors.

NOTE 13.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 and the remnants of its former Bermuda-based insurance operations. From the acquisition date, March 22, 2019, through March 31, 2019, the results of operations of the TMR Group Entities were not material, and as a result were not included in the Company's consolidated statements of operations for the three months ended March 31, 2019. In future periods, the results of operations of the TMR Group Entities will be reflected in the Company's existing reportable segments.

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, 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			81,462	81,462
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			170,645	170,645
Corporate expenses			(38,789)	(38,789)
Interest expense			(11,754)	(11,754)
Income before taxes and redeemable noncontrolling interests				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 %

Three months ended March 31, 2018	Property	Casualty and Specialty	Other	Total
Gross premiums written	$ 706,968	$ 452,684	$ —	$ 1,159,652
Net premiums written	$ 354,077	$ 308,967	$ —	$ 663,044
Net premiums earned	$ 225,049	$ 215,233	$ —	$ 440,282
Net claims and claim expenses incurred	30,607	141,078	18	171,703
Acquisition expenses	40,721	56,990	—	97,711
Operational expenses	26,546	14,593	133	41,272
Underwriting income (loss)	$ 127,175	$ 2,572	$ (151)	129,596
Net investment income			56,476	56,476
Net foreign exchange gains			3,757	3,757
Equity in earnings of other ventures			857	857
Other loss			(1,242)	(1,242)
Net realized and unrealized losses on investments			(82,144)	(82,144)
Corporate expenses			(6,733)	(6,733)
Interest expense			(11,767)	(11,767)
Income before taxes and redeemable noncontrolling interests				88,800
Income tax benefit			3,407	3,407
Net income attributable to redeemable noncontrolling interests			(29,899)	(29,899)
Dividends on preference shares			(5,595)	(5,595)
Net income available to RenaissanceRe common shareholders				$ 56,713
Net claims and claim expenses incurred – current accident year	$ 58,169	$ 144,869	$ —	$ 203,038
Net claims and claim expenses incurred – prior accident years	(27,562)	(3,791)	18	(31,335)
Net claims and claim expenses incurred – total	$ 30,607	$ 141,078	$ 18	$ 171,703
Net claims and claim expense ratio – current accident year	25.8 %	67.3 %		46.1 %
Net claims and claim expense ratio – prior accident years	(12.2)%	(1.8)%		(7.1)%
Net claims and claim expense ratio – calendar year	13.6 %	65.5 %		39.0 %
Underwriting expense ratio	29.9 %	33.3 %		31.6 %
Combined ratio	43.5 %	98.8 %		70.6 %

NOTE 14.DERIVATIVE INSTRUMENTS

From time to time, the Company may enter into derivative instruments such as futures, options, swaps, forward contracts and other derivative contracts primarily to manage its foreign currency exposure, obtain exposure to a particular financial market, for yield enhancement, or for trading and to assume risk. The Company's derivative instruments can be exchange traded or over-the-counter, with over-the-counter derivatives generally traded under International Swaps and Derivatives Association master agreements, which establish the terms of the transactions entered into with the Company's derivative counterparties. In the event a party becomes insolvent or otherwise defaults on its obligations, a master agreement generally permits the non-defaulting party to accelerate and terminate all outstanding transactions and net the transactions' marked-to-market values so that a single sum in a single currency will be owed by, or owed to, the non-defaulting party. Effectively, this contractual close-out netting reduces credit exposure from gross to net exposure. Where the Company has entered into master netting agreements with counterparties, or the Company has the legal and contractual right to offset positions, the derivative positions are generally netted by counterparty and are reported accordingly in other assets and other liabilities.

The tables below show the gross and net amounts of recognized derivative assets and liabilities at fair value, including the location on the consolidated balance sheets of the Company's principal derivative instruments:

	Derivative Assets					
At March 31, 2019	Gross Amounts of Recognized Assets	Gross Amounts Offset in the Balance Sheet	Net Amounts of Assets Presented in the Balance Sheet	Balance Sheet Location	Collateral	Net Amount
Interest rate futures	$ 1,263	1,206	$ 57	Other assets	$ —	$ 57
Interest rate swaps	6	—	6	Other assets	—	6
Foreign currency forward contracts (1)	10,490	152	10,338	Other assets	—	10,338
Foreign currency forward contracts (2)	743	64	679	Other assets	—	679
Credit default swaps	121	—	121	Other assets	—	121
Total return swaps	600	—	600	Other assets	—	600
Total	$ 13,223	$ 1,422	$ 11,801		$ —	$ 11,801

	Derivative Liabilities					
At March 31, 2019	Gross Amounts of Recognized Liabilities	Gross Amounts Offset in the Balance Sheet	Net Amounts of Liabilities Presented in the Balance Sheet	Balance Sheet Location	Collateral Pledged	Net Amount
Interest rate futures	$ 3,330	1,206	$ 2,124	Other liabilities	$ 2,113	$ 11
Interest rate swaps	71	—	71	Other liabilities	71	—
Foreign currency forward contracts (1)	3,011	103	2,908	Other liabilities	—	2,908
Foreign currency forward contracts (2)	945	64	881	Other liabilities	—	881
Total	$ 7,357	$ 1,373	$ 5,984		$ 2,184	$ 3,800

(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.

At December 31, 2018	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
Interest rate futures	$ 2,361	1,660	$ 701	Other assets	$ —	$ 701
Interest rate swaps	860	—	860	Other assets	—	860
Foreign currency forward contracts (1)	16,459	2,260	14,199	Other assets	—	14,199
Foreign currency forward contracts (2)	3,194	71	3,123	Other assets	—	3,123
Total	$ 22,874	$ 3,991	$ 18,883		$ —	$ 18,883

At December 31, 2018	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
Interest rate futures	$ 1,887	1,670	$ 217	Other liabilities	$ 217	$ —
Interest rate swaps	506	—	506	Other liabilities	254	252
Foreign currency forward contracts (1)	4,154	—	4,154	Other liabilities	—	4,154
Foreign currency forward contracts (2)	72	71	1	Other liabilities	—	1
Credit default swaps	1,606	—	1,606	Other liabilities	1,605	1
Total	$ 8,225	$ 1,741	$ 6,484		$ 2,076	$ 4,408

(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.

See “Note 4. 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,		2019	2018
Interest rate futures	Net realized and unrealized gains (losses) on investments	$ 8,503	$ (2,337)
Interest rate swaps	Net realized and unrealized gains (losses) on investments	349	(106)
Foreign currency forward contracts (1)	Net foreign exchange (losses) gains	4,442	6,743
Foreign currency forward contracts (2)	Net foreign exchange (losses) gains	1,145	(691)
Credit default swaps	Net realized and unrealized gains (losses) on investments	4,410	(1,921)
Total return swaps	Net realized and unrealized gains (losses) on investments	534	—
Total		$ 19,383	$ 1,688

(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.

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, 2019.

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, 2019, the Company had $2.6 billion of notional long positions and $343.0 million of notional short positions of primarily Eurodollar, U.S. treasury and non-U.S. dollar futures contracts (December 31, 2018 - $1.9 billion and $545.8 million, 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, 2019, the Company had $26.2 million of notional positions paying a fixed rate and $26.3 million receiving a fixed rate denominated in U.S. dollar swap contracts (December 31, 2018 - $78.4 million and $32.1 million, respectively).

Foreign Currency Derivatives

The Company's functional currency is the U.S. dollar. The Company writes a portion of its business in currencies other than U.S. dollars and may, from time to time, experience foreign exchange gains and losses in the Company's consolidated financial statements. All changes in exchange rates, with the exception of non-monetary assets and liabilities, are recognized in the Company's consolidated statements of operations.

Underwriting Operations Related Foreign Currency Contracts

The Company's foreign currency policy with regard to its underwriting operations is generally to hold foreign currency assets, including cash, investments and receivables that approximate the foreign currency liabilities, including claims and claim expense reserves and reinsurance balances payable. When necessary, the Company may use foreign currency forward and option contracts to minimize the effect of fluctuating foreign currencies on the value of non-U.S. dollar denominated assets and liabilities associated with its underwriting operations. The fair value of the Company's underwriting operations related foreign currency contracts is determined using indicative pricing obtained from counterparties or broker quotes. At March 31, 2019, the Company had outstanding underwriting related foreign currency contracts of $681.9 million in notional long positions and $617.0 million in notional short positions, denominated in U.S. dollars (December 31, 2018 - $354.1 million and $601.2 million, respectively).

Investment Portfolio Related Foreign Currency Forward Contracts

The Company's investment operations are exposed to currency fluctuations through its investments in non-U.S. dollar fixed maturity investments, short term investments and other investments. From time to time, the Company may employ foreign currency forward contracts in its investment portfolio to either assume foreign currency risk or to economically hedge its exposure to currency fluctuations from these investments. The fair value of the Company's investment portfolio related foreign currency forward contracts is determined using an interpolated rate based on closing forward market rates. At March 31, 2019, the Company had outstanding investment portfolio related foreign currency contracts of $105.7 million in notional long positions and $38.9 million in notional short positions, denominated in U.S. dollars (December 31, 2018 - $121.3 million and $42.9 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, 2019, the Company had outstanding credit default swaps of $Nil in notional positions to hedge credit risk and $53.4 million in notional positions to assume credit risk, denominated in U.S. dollars (December 31, 2018 - $1.0 million and $126.2 million, respectively).

Total Return Swaps

During the three months ended March 31, 2019, the Company entered into certain total return swap contracts. 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, 2019, the Company had $100.0 million of notional long positions (long credit) and $Nil of notional short positions (short credit), denominated in U.S. dollars.

NOTE 15.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, 2018, other than disclosures associated with the adoption of FASB ASC Topic *Leases* as outlined below. See "Note 2. Significant Accounting Policies" for additional information related to the adoption of FASB ASC Topic *Leases.*

Leases

The Company's operating leases primarily relate to office space for its global underwriting platforms, principally in Bermuda, Australia, Ireland, Singapore, Switzerland, the U.K. and the U.S. These leases expire at various dates through 2027 with a weighted average lease term of 1.6 years. Included in other assets and other liabilities at March 31, 2019 is a right-to-use asset of $20.5 million and a lease liability of $20.5 million, respectively, associated with the Company's operating leases and reflected as a result of the

Company's adoption of FASB ASC Topic *Leases* (December 31, 2018 - $Nil and $Nil, respectively). For the three months ended March 31, 2019, the Company recorded an operating lease expense of $1.7 million included in other income (loss) (2018 - $Nil).

The Company's financing leases primarily relate to office space in Bermuda with an initial lease term of 20 years, ending in 2028, and a bargain renewal option for an additional 30 years. Included in other assets and other liabilities at March 31, 2019 is a right-to-use asset of $20.4 million and a lease liability of $25.7 million, respectively, associated with the Company's finance leases and reflected as a result of the Company's adoption of FASB ASC Topic *Leases* (December 31, 2018 - $Nil and $Nil, respectively). For the three months ended March 31, 2019, the Company recorded interest expense of $0.6 million associated with its finance leases (2018 - $0.7 million) and amortization of its finance leases right-to-use asset of $0.2 million included in other income (loss) (2018 - $0.5 million).

Future minimum lease payments under existing operating and finance leases are detailed below, excluding the bargain renewal option on the finance lease related to office space in Bermuda:

	Future minimum lease payments	
	Operating leases	Finance leases
2019 (remaining)	$ 5,722	$ 2,498
2020	5,439	3,336
2021	5,052	3,336
2022	4,261	3,336
2023	1,569	2,830
2024	86	2,661
After 2024	211	10,129
Future minimum lease payments under existing leases	$ 22,340	$ 28,126

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 accordingly. Currently, 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 16.CONDENSED CONSOLIDATING FINANCIAL INFORMATION PROVIDED IN CONNECTION WITH OUTSTANDING DEBT OF SUBSIDIARIES

The following tables present condensed consolidating balance sheets at March 31, 2019 and December 31, 2018, condensed consolidating statements of operations and condensed consolidating statements of comprehensive income for the three months ended March 31, 2019 and 2018, and condensed consolidating statements of cash flows for the three months ended March 31, 2019 and 2018. Each of RenRe North America Holdings Inc. and RenaissanceRe Finance, Inc. is a 100% owned subsidiary of RenaissanceRe. 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, 2018 and "Note 8. Debt and Credit Facilities in the Notes to the Consolidated Financial Statements" included herein.

Condensed Consolidating Balance Sheet at March 31, 2019	**RenaissanceRe Holdings Ltd. (Parent Guarantor)**	**RenRe North America Holdings Inc. (Subsidiary Issuer)**	**RenaissanceRe Finance, Inc. (Subsidiary Issuer)**	**Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)**	**Consolidating Adjustments (2)**	**RenaissanceRe Consolidated**
Assets						
Total investments	$ 126,816	$ 110,166	$ 18,385	$ 14,597,481	$ —	$ 14,852,848
Cash and cash equivalents	3,070	3,687	5,848	1,008,670	—	1,021,275
Investments in subsidiaries	5,039,057	59,310	1,249,218	—	(6,347,585)	—
Due from subsidiaries and affiliates	54,939	101,578	3,765	—	(160,282)	—
Premiums receivable	—	—	—	2,753,098	—	2,753,098
Prepaid reinsurance premiums	—	—	—	1,086,027	—	1,086,027
Reinsurance recoverable	—	—	—	2,908,343	—	2,908,343
Accrued investment income	(88)	231	96	64,376	—	64,615
Deferred acquisition costs	—	—	—	841,528	—	841,528
Receivable for investments sold	926	1	—	410,245	—	411,172
Other assets	766,088	15,528	313,424	(1,793,255)	1,051,758	353,543
Goodwill and other intangible assets	119,410	—	—	147,741	—	267,151
Total assets	$ 6,110,218	$ 290,501	$ 1,590,736	$ 22,024,254	$ (5,456,109)	$ 24,559,600
Liabilities, Noncontrolling Interests and Shareholders' Equity						
Liabilities						
Reserve for claims and claim expenses	$ —	$ —	$ —	$ 8,391,484	$ —	$ 8,391,484
Unearned premiums	—	—	—	3,188,678	—	3,188,678
Debt	500,000	—	843,382	148,117	(300,000)	1,191,499
Amounts due to subsidiaries and affiliates	25,037	31	112,637	—	(137,705)	—
Reinsurance balances payable	—	—	—	3,009,492	—	3,009,492
Payable for investments purchased	—	—	—	679,596	—	679,596
Other liabilities	31,148	288	9,283	395,346	(647)	435,418
Total liabilities	556,185	319	965,302	15,812,713	(438,352)	16,896,167
Redeemable noncontrolling interests	—	—	—	2,109,400	—	2,109,400
Shareholders' Equity						
Total shareholders' equity	5,554,033	290,182	625,434	4,102,141	(5,017,757)	5,554,033
Total liabilities, noncontrolling interests and shareholders' equity	$ 6,110,218	$ 290,501	$ 1,590,736	$ 22,024,254	$ (5,456,109)	$ 24,559,600

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

Condensed Consolidating Balance Sheet at December 31, 2018	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenRe North America Holdings Inc. (Subsidiary Issuer)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Assets						
Total investments	$ 313,360	$ 77,842	$ 28,885	$ 11,465,660	$ —	$ 11,885,747
Cash and cash equivalents	3,534	3,350	9,604	1,091,434	—	1,107,922
Investments in subsidiaries	4,414,475	58,458	1,215,663	—	(5,688,596)	—
Due from subsidiaries and affiliates	57,039	101,579	—	—	(158,618)	—
Premiums receivable	—	—	—	1,537,188	—	1,537,188
Prepaid reinsurance premiums	—	—	—	616,185	—	616,185
Reinsurance recoverable	—	—	—	2,372,221	—	2,372,221
Accrued investment income	1,046	310	127	49,828	—	51,311
Deferred acquisition costs	—	—	—	476,661	—	476,661
Receivable for investments sold	203	23,885	—	232,328	—	256,416
Other assets	458,842	22,571	313,636	(1,403,636)	743,714	135,127
Goodwill and other intangible assets	120,476	—	—	116,942	—	237,418
Total assets	$ 5,368,975	$ 287,995	$ 1,567,915	$ 16,554,811	$ (5,103,500)	$ 18,676,196
Liabilities, Redeemable Noncontrolling Interest and Shareholders' Equity						
Liabilities						
Reserve for claims and claim expenses	$ —	$ —	$ —	$ 6,076,271	$ —	$ 6,076,271
Unearned premiums	—	—	—	1,716,021	—	1,716,021
Debt	300,000	—	843,086	148,041	(300,000)	991,127
Amounts due to subsidiaries and affiliates	6,453	217	102,243	—	(108,913)	—
Reinsurance balances payable	—	—	—	1,902,056	—	1,902,056
Payable for investments purchased	—	24	—	380,308	—	380,332
Other liabilities	17,442	5,362	13,918	482,422	(5,535)	513,609
Total liabilities	323,895	5,603	959,247	10,705,119	(414,448)	11,579,416
Redeemable noncontrolling interests	—	—	—	2,051,700	—	2,051,700
Shareholders' Equity						
Total shareholders' equity	5,045,080	282,392	608,668	3,797,992	(4,689,052)	5,045,080
Total liabilities, redeemable noncontrolling interest and shareholders' equity	$ 5,368,975	$ 287,995	$ 1,567,915	$ 16,554,811	$ (5,103,500)	$ 18,676,196

(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, 2019	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenRe North America Holdings Inc. (Subsidiary Issuer)	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	595	2,060	79,332	(8,802)	81,462
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	8,159	109	161,375	—	170,645
Total revenues	9,278	8,754	3,134	794,757	(8,802)	807,121
Expenses						
Net claims and claim expenses incurred	—	—	—	227,035	—	227,035
Acquisition expenses	—	—	—	123,951	—	123,951
Operational expenses	469	11	12,333	42,609	(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	11	21,585	392,292	(8,606)	446,462
(Loss) income before equity in net income of subsidiaries and taxes	(31,902)	8,743	(18,451)	402,465	(196)	360,659
Equity in net income of subsidiaries	314,887	828	33,532	—	(349,247)	—
Income before taxes	282,985	9,571	15,081	402,465	(349,443)	360,659
Income tax (expense) benefit	(79)	(1,805)	1,662	(7,309)	—	(7,531)
Net income	282,906	7,766	16,743	395,156	(349,443)	353,128
Net income attributable to redeemable noncontrolling interests	—	—	—	(70,222)	—	(70,222)
Net income attributable to RenaissanceRe	282,906	7,766	16,743	324,934	(349,443)	282,906
Dividends on preference shares	(9,189)	—	—	—	—	(9,189)
Net income available to RenaissanceRe common shareholders	$ 273,717	$ 7,766	$ 16,743	$ 324,934	$ (349,443)	$ 273,717

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

Condensed Consolidating Statement of Comprehensive Income for the three months ended March 31, 2019	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenRe North America Holdings Inc. (Subsidiary Issuer)	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	$ 7,766	$ 16,743	$ 395,156	$ (349,443)	$ 353,128
Change in net unrealized losses on investments	—	—	—	(37)	—	(37)
Comprehensive income	282,906	7,766	16,743	395,119	(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	$ 7,766	$ 16,743	$ 324,897	$ (349,443)	$ 282,869

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

Condensed Consolidating Statement of Operations for the three months ended March 31, 2018	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenRe North America Holdings Inc. (Subsidiary Issuer)	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	$ —	$ —	$ —	$ 440,282	$ —	$ 440,282
Net investment income	6,035	513	1,234	56,305	(7,611)	56,476
Net foreign exchange (losses) gains	(3)	—	—	3,760	—	3,757
Equity in earnings (losses) of other ventures	—	—	1,211	(354)	—	857
Other loss	—	—	—	(1,242)	—	(1,242)
Net realized and unrealized (losses) on investments	(661)	(1,286)	(259)	(79,938)	—	(82,144)
Total revenues	5,371	(773)	2,186	418,813	(7,611)	417,986
Expenses						
Net claims and claim expenses incurred	—	—	—	171,703	—	171,703
Acquisition expenses	—	—	—	97,711	—	97,711
Operational expenses	1,313	10	11,070	37,933	(9,054)	41,272
Corporate expenses	3,684	—	—	3,049	—	6,733
Interest expense	1,108	—	9,252	2,515	(1,108)	11,767
Total expenses	6,105	10	20,322	312,911	(10,162)	329,186
(Loss) income before equity in net income (loss) of subsidiaries and taxes	(734)	(783)	(18,136)	105,902	2,551	88,800
Equity in net income (loss) of subsidiaries	62,426	834	(3,813)	—	(59,447)	—
Income (loss) before taxes	61,692	51	(21,949)	105,902	(56,896)	88,800
Income tax benefit	616	221	1,815	755	—	3,407
Net income (loss)	62,308	272	(20,134)	106,657	(56,896)	92,207
Net income attributable to redeemable noncontrolling interests	—	—	—	(29,899)	—	(29,899)
Net income (loss) attributable to RenaissanceRe	62,308	272	(20,134)	76,758	(56,896)	62,308
Dividends on preference shares	(5,595)	—	—	—	—	(5,595)
Net income (loss) available (attributable) to RenaissanceRe common shareholders	$ 56,713	$ 272	$ (20,134)	$ 76,758	$ (56,896)	$ 56,713

(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 (Loss) for the three months ended March 31, 2018	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenRe North America Holdings Inc. (Subsidiary Issuer)	RenaissanceRe Finance, Inc. (Subsidiary Issuer)	Other RenaissanceRe Holdings Ltd. Subsidiaries and Eliminations (Non-guarantor Subsidiaries) (1)	Consolidating Adjustments (2)	RenaissanceRe Consolidated
Comprehensive income (loss)						
Net income (loss)	$ 62,308	$ 272	$ (20,134)	$ 106,657	$ (56,896)	$ 92,207
Change in net unrealized gains on investments	—	—	—	(30)	—	(30)
Comprehensive income	62,308	272	(20,134)	106,627	(56,896)	92,177
Net income attributable to redeemable noncontrolling interests	—	—	—	(29,899)	—	(29,899)
Comprehensive income attributable to noncontrolling interests	—	—	—	(29,899)	—	(29,899)
Comprehensive income (loss) attributable to RenaissanceRe	$ 62,308	$ 272	$ (20,134)	$ 76,728	$ (56,896)	$ 62,278

(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, 2019	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenRe North America Holdings Inc. (Subsidiary Issuer)	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)	$ 2,198	$ (21,202)	$ 713,449	$ 377,149
Cash flows provided by (used in) investing activities					
Proceeds from sales and maturities of fixed maturity investments trading	277,030	15,655	29,861	4,278,262	4,600,808
Purchases of fixed maturity investments trading	(35,909)	(9,899)	(14,098)	(3,459,371)	(3,519,277)
Net purchases of equity investments trading	—	(2,046)	—	(2,555)	(4,601)
Net purchases of short term investments	(54,622)	(5,386)	(4,946)	(1,309,678)	(1,374,632)
Net purchases of other investments	—	—	—	(51,811)	(51,811)
Net purchases of investments in other ventures	—	—	—	(1,573)	(1,573)
Return of investment from investments 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 subsidiary	2,100	(185)	6,629	(8,544)	—
Net purchase of the TMR Group Entities	—	—	—	(276,206)	(276,206)
Net cash provided by (used in) investing activities	147,447	(1,861)	17,446	(779,074)	(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) increase in cash and cash equivalents	(464)	337	(3,756)	(82,764)	(86,647)
Cash and cash equivalents, beginning of period	3,534	3,350	9,604	1,091,434	1,107,922
Cash and cash equivalents, end of period	$ 3,070	$ 3,687	$ 5,848	$ 1,008,670	$ 1,021,275

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

Condensed Consolidating Statement of Cash Flows for the three months ended March 31, 2018	RenaissanceRe Holdings Ltd. (Parent Guarantor)	RenRe North America Holdings Inc. (Subsidiary Issuer)	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	$ (6,875)	$ 659	$ (23,449)	$ (7,684)	$ (37,349)
Cash flows provided by (used in) investing activities					
Proceeds from sales and maturities of fixed maturity investments trading	119,542	42,793	27,672	2,128,852	2,318,859
Purchases of fixed maturity investments trading	(20,216)	(22,956)	(12,698)	(2,256,591)	(2,312,461)
Net (purchases) sales of equity investments trading	—	(21)	—	158	137
Net sales (purchases) of short term investments	54,728	(4,024)	(5,925)	(639,420)	(594,641)
Net purchases of other investments	—	—	—	(98,639)	(98,639)
Net purchases of investments in other ventures	—	—	—	(17,974)	(17,974)
Dividends and return of capital from subsidiaries	177,250	—	—	(177,250)	—
Contributions to subsidiaries	(150,205)	(16,500)	—	166,705	—
Due (from) to subsidiaries	(154,877)	7	14,106	140,764	—
Net cash provided by (used in) investing activities	26,222	(701)	23,155	(753,395)	(704,719)
Cash flows (used in) provided by financing activities					
Dividends paid – RenaissanceRe common shares	(13,224)	—	—	—	(13,224)
Dividends paid – preference shares	(5,595)	—	—	—	(5,595)
Net third party redeemable noncontrolling interest share transactions	—	—	—	52,759	52,759
Taxes paid on withholding shares	(7,034)	—	—	—	(7,034)
Net cash (used in) provided by financing activities	(25,853)	—	—	52,759	26,906
Effect of exchange rate changes on foreign currency cash	—	—	—	1,543	1,543
Net decrease in cash and cash equivalents	(6,506)	(42)	(294)	(706,777)	(713,619)
Cash and cash equivalents, beginning of period	14,656	139	1,469	1,345,328	1,361,592
Cash and cash equivalents, end of period	$ 8,150	$ 97	$ 1,175	$ 638,551	$ 647,973

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

NOTE 17. SUBSEQUENT EVENTS

3.600% Senior Notes Due 2029

On April 2, 2019, the Company issued $400.0 million of its 3.600% Senior Notes due April 15, 2029, with interest on the notes payable on April 15 and October 15 of each year, commencing on October 15, 2019. The notes are redeemable at the applicable redemption price, subject to the terms described in the indenture for the notes. However, the notes may not be redeemed prior to April 15, 2022 without approval from the Bermuda Monetary Authority (the "BMA") and may not be redeemed at any time prior to their maturity if enhanced capital requirements, as established by the BMA, would be breached immediately before or after giving effect to the redemption of such notes, unless, in each case, the Company replaces the capital represented by the notes to be redeemed with capital having equal or better capital treatment as the notes under applicable BMA rules. The notes contain various covenants including limitations on mergers and consolidations, and restrictions as to the disposition of, and the placing of liens on, the stock of designated subsidiaries. The net proceeds from this offering were used to repay, in full, the $200.0 million outstanding under the Company's revolving credit facility at March 31, 2019, which the Company used to partially fund the purchase price for the TMR Stock Purchase, and the remainder of the net proceeds will be used for general corporate purposes.

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, 2019 and 2018, respectively, as well as our liquidity and capital resources at March 31, 2019. 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, 2018.

On March 22, 2019, we acquired the TMR Group Entities, including RenaissanceRe Europe, RenaissanceRe UK and their subsidiaries, pursuant to the TMR Stock Purchase Agreement that we entered into on October 30, 2018. As a result of the acquisition, each of the TMR Group Entities became our wholly owned subsidiaries. The operating activities of the TMR Group Entities from the acquisition date, March 22, 2019, through March 31, 2019 were not material and, as a result, were not included in our consolidated statements of operations for the three months ended March 31, 2019. As at March 31, 2019, our consolidated balance sheet reflects the combined entities. Refer to "Note 3. Acquisition of Tokio Millennium Re" in our "Notes to the Consolidated Financial Statements" for additional information with respect to the acquisition of the TMR Group Entities.

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.

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 United Kingdom (the U.K.") and the U.S. Our operating subsidiaries include Renaissance Reinsurance, RenaissanceRe Specialty U.S. Ltd., Renaissance Reinsurance U.S., RenaissanceRe Europe, RenaissanceRe UK, Renaissance Reinsurance of Europe Unlimited Company ("Renaissance Reinsurance of Europe") and Syndicate 1458. We also underwrite reinsurance on behalf of joint ventures, including DaVinci, Fibonacci Re, Top Layer Re, Upsilon RFO and Vermeer. In addition, through 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 the cycles that have historically characterized our markets 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 seek to cultivate 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 a number of initiatives, including organic growth and acquisitions, we have expanded 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.

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, with 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 a number of jurisdictions and may create additional risk bearing vehicles or enter into additional jurisdictions in the future. In addition, our differentiated strategy and capability 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, 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 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, 2018. There have been no material changes to our critical accounting estimates as disclosed in our Form 10-K for the year ended December 31, 2018.

SUMMARY OF RESULTS OF OPERATIONS

Below is a discussion of the results of operations for the first quarter of 2019, compared to the first quarter of 2018.

Three months ended March 31,	2019	2018	Change
(in thousands, except per share amounts and percentages)			
Statement of operations highlights			
Gross premiums written	$ 1,564,295	$ 1,159,652	$ 404,643
Net premiums written	$ 929,031	$ 663,044	$ 265,987
Net premiums earned	$ 550,028	$ 440,282	$ 109,746
Net claims and claim expenses incurred	227,035	171,703	55,332
Acquisition expenses	123,951	97,711	26,240
Operational expenses	44,933	41,272	3,661
Underwriting income	$ 154,109	$ 129,596	$ 24,513
Net investment income	$ 81,462	$ 56,476	$ 24,986
Net realized and unrealized gains (losses) on investments	170,645	(82,144)	252,789
Total investment result	$ 252,107	$ (25,668)	$ 277,775
Net income	$ 353,128	$ 92,207	$ 260,921
Net income available to RenaissanceRe common shareholders	$ 273,717	$ 56,713	$ 217,004
Net income available to RenaissanceRe common shareholders per common share – diluted	$ 6.43	$ 1.42	$ 5.01
Dividends per common share	$ 0.34	$ 0.33	$ 0.01
Key ratios			
Net claims and claim expense ratio – current accident year	42.1 %	46.1 %	(4.0)%
Net claims and claim expense ratio – prior accident years	(0.8)%	(7.1)%	6.3 %
Net claims and claim expense ratio – calendar year	41.3 %	39.0 %	2.3 %
Underwriting expense ratio	30.7 %	31.6 %	(0.9)%
Combined ratio	72.0 %	70.6 %	1.4 %
Return on average common equity - annualized	23.5 %	5.7 %	17.8 %
Book value	March 31, 2019	December 31, 2018	Change
Book value per common share	$ 111.05	$ 104.13	$ 6.92
Accumulated dividends per common share	19.66	19.32	0.34
Book value per common share plus accumulated dividends	$ 130.71	$ 123.45	$ 7.26
Change in book value per common share plus change in accumulated dividends	7.0 %		

Net income available to RenaissanceRe common shareholders was $273.7 million in the first quarter of 2019, compared to $56.7 million in the first quarter of 2018, an increase of $217.0 million. As a result of our net income available to RenaissanceRe common shareholders in the first quarter of 2019, we generated an annualized return on average common equity of 23.5% and our book value per common share increased from $104.13 at December 31, 2018 to $111.05 at March 31, 2019, a 7.0% increase, 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 2019, on a comparative basis to the first quarter of 2018, include:

- *Underwriting Results* - we generated underwriting income of $154.1 million and a combined ratio of 72.0% in the first quarter of 2019, compared to $129.6 million and 70.6%, respectively, in the first quarter of 2018. Our underwriting income in the first quarter of 2019 was primarily driven by our Property segment, which generated underwriting income of $152.4 million and a combined ratio of 47.6%. Our Casualty and Specialty segment generated underwriting income of $1.7 million and a combined ratio of 99.3%. Our underwriting results are discussed in additional detail below in "Underwriting Results by Segment";
- *Gross Premiums Written* - our gross premiums written increased by $404.6 million, or 34.9%, to $1.6 billion, in the first quarter of 2019, compared to the first quarter of 2018, driven by an increase of $325.4 million in the Property segment and an increase of $79.2 million in the Casualty and Specialty segment. Our gross premiums written are discussed in additional detail below in "Underwriting Results by Segment";
- *Investment Results* - our total investment result, which includes the sum of net investment income and net realized and unrealized gains and losses on investments, was a gain of $252.1 million in the first quarter of 2019, compared to a loss of $25.7 million in the first quarter of 2018, an increase of $277.8 million. The increase in the total investment result was principally due to significant net unrealized gains from our fixed maturity and public equity portfolios and higher net investment income primarily driven by our fixed maturity, short term and private equity investments; and
- *Net Income Attributable to Redeemable Noncontrolling Interests* - our net income attributable to redeemable noncontrolling interests was $70.2 million in the first quarter of 2019, compared to $29.9 million in the first quarter of 2018. The improvement was principally due to DaVinciRe generating higher underwriting income in the first quarter of 2019, compared to the first quarter of 2018 . Our ownership in DaVinciRe was 22.1% at both March 31, 2019 and 2018.

TMR Stock Purchase

We completed our acquisition of the TMR Group Entities on March 22, 2019. As a result of the acquisition, the TMR Group Entities became wholly owned subsidiaries of RenaissanceRe. We accounted for the acquisition of the TMR Group Entities under the acquisition method of accounting in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic *Business Combinations.* The operating activities of the TMR Group Entities from the acquisition date, March 22, 2019, through March 31, 2019 were not material and, as a result, were not included in our consolidated statements of operations for the first quarter of 2019. During the first quarter of 2019, we recorded $25.5 million of corporate expenses associated with the acquisition, comprised of $12.9 million of transaction-related costs, $5.9 million of integration-related costs, and $6.7 million of compensation-related costs. In addition, we recognized $18.0 million of identifiable intangible assets and $13.1 million of goodwill as a result of the acquisition.

Underwriting Results by Segment

Property

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

Three months ended March 31,		2019		2018		Change
(in thousands, except percentages)						
Gross premiums written	$	1,032,384	$	706,968	$	325,416
Net premiums written	$	564,230	$	354,077	$	210,153
Net premiums earned	$	290,745	$	225,049	$	65,696
Net claims and claim expenses incurred		56,083		30,607		25,476
Acquisition expenses		53,739		40,721		13,018
Operational expenses		28,544		26,546		1,998
Underwriting income	$	152,379	$	127,175	$	25,204
Net claims and claim expenses incurred – current accident year	$	54,206	$	58,169	$	(3,963)
Net claims and claim expenses incurred – prior accident years		1,877		(27,562)		29,439
Net claims and claim expenses incurred – total	$	56,083	$	30,607	$	25,476
Net claims and claim expense ratio – current accident year		18.6%		25.8 %		(7.2)%
Net claims and claim expense ratio – prior accident years		0.7%		(12.2)%		12.9 %
Net claims and claim expense ratio – calendar year		19.3%		13.6 %		5.7 %
Underwriting expense ratio		28.3%		29.9 %		(1.6)%
Combined ratio		47.6%		43.5 %		4.1 %

Property Gross Premiums Written

In the first quarter of 2019, our Property segment gross premiums written increased by $325.4 million, or 46.0%, to $1.0 billion, compared to $707.0 million in the first quarter of 2018.

Gross premiums written in the catastrophe class of business were $845.2 million in the first quarter of 2019, an increase of $254.9 million, or 43.2%, compared to the first quarter of 2018. The increase in gross premiums written in the catastrophe class of business in the first quarter of 2019 was driven primarily by expanded participation on existing transactions and certain new transactions.

Gross premiums written in the other property class of business were $187.2 million in the first quarter of 2019, an increase of $70.5 million, or 60.5%, compared to the first quarter of 2018. The increase in gross premiums written in the other property class of business was primarily driven by growth across a number of our underwriting platforms, both from existing relationships and through new opportunities.

Property Ceded Premiums Written

Three months ended March 31,		2019		2018		Change
(in thousands)						
Ceded premiums written - Property	$	468,154	$	352,891	$	115,263

Ceded premiums written in our Property segment were $468.2 million in the first quarter of 2019, an increase of $115.3 million, or 32.7%, compared to the first quarter of 2018. The increase in ceded premiums written in the first quarter of 2019 was principally due to a significant portion of the increase in gross premiums written in the catastrophe class of business noted above being ceded to third-party investors in our managed joint venture, Upsilon RFO.

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 $152.4 million in the first quarter of 2019, compared to $127.2 million in the first quarter of 2018. In the first quarter of 2019, our Property segment generated a net claims and claim expense ratio of 19.3%, an underwriting expense ratio of 28.3% and a combined ratio of 47.6%, compared to 13.6%, 29.9% and 43.5%, respectively, in the first quarter of 2018.

Principally impacting the Property segment underwriting result and combined ratio in the first quarter of 2019 was lower current accident year net claims and claim expenses driven by a relatively lower level of insured catastrophe events, compared to the first quarter of 2018. Partially offsetting this was net adverse development on prior accident years net claims and claim expenses of $1.9 million, or 0.7% percentage points, during the first quarter of 2019, primarily driven by higher than expected losses in the other property class of business.

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,	2019	2018	Change
(in thousands, except percentages)			
Gross premiums written	$ 531,911	$ 452,684	$ 79,227
Net premiums written	$ 364,801	$ 308,967	$ 55,834
Net premiums earned	$ 259,283	$ 215,233	$ 44,050
Net claims and claim expenses incurred	170,933	141,078	29,855
Acquisition expenses	70,212	56,990	13,222
Operational expenses	16,389	14,593	1,796
Underwriting income	$ 1,749	$ 2,572	$ (823)
Net claims and claim expenses incurred – current accident year	$ 177,135	$ 144,869	$ 32,266
Net claims and claim expenses incurred – prior accident years	(6,202)	(3,791)	(2,411)
Net claims and claim expenses incurred – total	$ 170,933	$ 141,078	$ 29,855
Net claims and claim expense ratio – current accident year	68.3 %	67.3 %	1.0 %
Net claims and claim expense ratio – prior accident years	(2.4)%	(1.8)%	(0.6)%
Net claims and claim expense ratio – calendar year	65.9 %	65.5 %	0.4 %
Underwriting expense ratio	33.4 %	33.3 %	0.1 %
Combined ratio	99.3 %	98.8 %	0.5 %

Casualty and Specialty Gross Premiums Written

In the first quarter of 2019, our Casualty and Specialty segment gross premiums written increased by $79.2 million, or 17.5%, to $531.9 million, compared to $452.7 million in the first quarter of 2018. The increase was principally due to continued growth from new and existing business opportunities across various classes of business within the segment.

Casualty and Specialty Ceded Premiums Written

Three months ended March 31,	2019	2018	Change
(in thousands)			
Ceded premiums written - Casualty and Specialty	$ 167,110	$ 143,717	$ 23,393

Ceded premiums written in our Casualty and Specialty segment were $167.1 million in the first quarter of 2019, compared to $143.7 million in the first quarter of 2018, an increase of $23.4 million, primarily as 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 generated underwriting income of $1.7 million and had a combined ratio of 99.3% in the first quarter of 2019, compared to $2.6 million and a combined ratio of 98.8%, in the first quarter of 2018.

During the first quarter of 2019, the Casualty and Specialty segment experienced net favorable development on prior accident years net claims and claim expenses of $6.2 million, or 2.4 percentage points, compared to net favorable development on prior accident years net claims and claim expenses of $3.8 million, or 1.8 percentage points, in the first quarter of 2018. The net favorable development during the first quarter of 2019 was principally driven by reported losses generally coming in lower than expected on attritional net claims and claim expenses from various lines of business within the segment.

Fee Income

Three months ended March 31,	2019	2018	Change
(in thousands)			
Management fee income			
Joint ventures	$ 9,735	$ 6,369	$ 3,366
Managed funds	3,797	2,406	1,391
Structured reinsurance products	8,245	8,611	(366)
Total management fee income	21,777	17,386	4,391
Performance fee income			
Joint ventures	2,538	4,178	(1,640)
Managed funds	298	778	(480)
Structured reinsurance products	4,191	3,366	825
Total performance fee income (1)	7,027	8,322	(1,295)
Total fee income	$ 28,804	$ 25,708	$ 3,096

(1) Performance fees are based on the performance of the individual vehicles and/or products, and could be negative in any given quarter when large losses occur, which can result in the reversal of previously accrued performance fees.

Total fee income is earned through third-party capital management as well as various joint ventures and certain structured retrocession agreements to which we are a party. Joint ventures include DaVinciRe, Top Layer Re, Vermeer and certain entities investing in Langhorne. Managed funds include Upsilon Fund and Medici. Structured reinsurance products include Fibonacci Re, as well as certain other reinsurance contracts which transfer risk to capital.

In the first quarter of 2019, total fee income increased $3.1 million, to $28.8 million, compared to $25.7 million in the first quarter of 2018, primarily driven by an increase in the dollar value of capital being managed.

Net Investment Income

Three months ended March 31,	2019	2018	Change
(in thousands)			
Fixed maturity investments	$ 61,483	$ 45,643	$ 15,840
Short term investments	11,844	5,304	6,540
Equity investments trading	1,027	698	329
Other investments			
Private equity investments	2,454	(434)	2,888
Other	7,245	8,023	(778)
Cash and cash equivalents	1,517	565	952
	85,570	59,799	25,771
Investment expenses	(4,108)	(3,323)	(785)
Net investment income	$ 81,462	$ 56,476	$ 24,986

Net investment income was $81.5 million in the first quarter of 2019, compared to $56.5 million in the first quarter of 2018, an increase of $25.0 million, principally driven by fixed maturity and short term investments.

Our private equity and other investment portfolios are accounted for at fair value with the change in fair value recorded in net investment income, which included net unrealized gains of $3.0 million in the first quarter of 2019, compared to unrealized gains of $1.5 million in the first quarter of 2018.

Net Realized and Unrealized Gains (Losses) on Investments

Three months ended March 31,	2019	2018	Change
(in thousands)			
Gross realized gains	$ 24,373	$ 4,583	$ 19,790
Gross realized losses	(22,943)	(25,853)	2,910
Net realized gains (losses) on fixed maturity investments	1,430	(21,270)	22,700
Net unrealized gains (losses) on fixed maturity investments trading	103,922	(55,372)	159,294
Net realized and unrealized gains (losses) on investments-related derivatives	13,796	(4,364)	18,160
Net realized (losses) gains on equity investments trading	(1,161)	234	(1,395)
Net unrealized gains (losses) on equity investments trading	52,658	(1,372)	54,030
Net realized and unrealized gains (losses) on investments	$ 170,645	$ (82,144)	$ 252,789

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

Net realized and unrealized gains on investments were $170.6 million in the first quarter of 2019, compared to net realized and unrealized losses of $82.1 million in the first quarter of 2018, an increase of $252.8 million. Principally impacting our net realized and unrealized gains on investments were the improved performances from our fixed maturity and public equity portfolios, and from our derivative exposure.

Net Foreign Exchange (Losses) Gains

Three months ended March 31,	2019	2018	Change
(in thousands)			
Net foreign exchange (losses) gains	$ (2,846)	$ 3,757	$ (6,603)

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. As a result, we may experience foreign exchange gains and losses in our consolidated financial statements. All changes in exchange rates are recognized in our consolidated statements of operations. We are primarily impacted by the foreign currency risk exposures associated with our underwriting operations and investment portfolio, 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.

Equity in Earnings of Other Ventures

Three months ended March 31,	2019	2018	Change
(in thousands)			
Top Layer Re	$ 2,265	$ 2,033	$ 232
Tower Hill Companies	501	(910)	1,411
Other	1,895	(266)	2,161
Total equity in earnings of other ventures	$ 4,661	$ 857	$ 3,804

Equity in earnings of other ventures primarily represents our pro-rata share of the net income (loss) 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 Select Insurance 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 $4.7 million in the first quarter of 2019, compared to $0.9 million in the first quarter of 2018, an increase of $3.8 million, driven by the improved profitability of the Tower Hill Companies.

Other Income (Loss)

Three months ended March 31,	2019	2018	Change
(in thousands)			
Assumed and ceded reinsurance contracts accounted for as derivatives and deposits	$ 3,106	$ (1,523)	$ 4,629
Other items	65	281	(216)
Total other income (loss)	$ 3,171	$ (1,242)	$ 4,413

In the first quarter of 2019, we generated other income of $3.2 million, compared to an other loss of $1.2 million in the first quarter of 2018, an increase of $4.4 million, principally driven by our assumed and ceded reinsurance contracts accounted for as derivatives and deposits.

Corporate Expenses

Three months ended March 31,		2019		2018		Change
(in thousands)						
Corporate expenses	$	38,789	$	6,733	$	32,056

Corporate expenses include certain executive, director, legal and consulting expenses, costs for research and development, costs associated with corporate acquisitions, impairment charges related to goodwill and other intangible assets, and other miscellaneous costs, including those associated with operating as a publicly traded company. Corporate expenses increased to $38.8 million in the first quarter of 2019, compared to $6.7 million in the first quarter of 2018, primarily due to $25.5 million of corporate expenses associated with the acquisition of the TMR Group Entities, comprised of $12.9 million of transaction-related costs, $5.9 million of integration-related costs, and $6.7 million of compensation-related costs.

Income Tax (Expense) Benefit

Three months ended March 31,		2019		2018		Change
(in thousands)						
Income tax (expense) benefit	$	(7,531)	$	3,407	$	(10,938)

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 expense of $7.5 million in the first quarter of 2019, compared to an income tax benefit of $3.4 million in the first quarter of 2018, principally driven by investment gains in our U.S. based operations.

Net Income Attributable to Redeemable Noncontrolling Interests

Three months ended March 31,		2019		2018		Change
(in thousands)						
Net income attributable to redeemable noncontrolling interests	$	(70,222)	$	(29,899)	$	(40,323)

Our net income attributable to redeemable noncontrolling interests was $70.2 million in the first quarter of 2019, compared to $29.9 million in the first quarter of 2018, a change of $40.3 million, principally due to DaVinciRe generating higher underwriting income and total investment results in the first quarter of 2019, compared to the first quarter of 2018. Our ownership in DaVinciRe was 22.1% at both March 31, 2019 and 2018. We expect our noncontrolling economic ownership in DaVinciRe to fluctuate over time.

LIQUIDITY AND CAPITAL RESOURCES

Financial Condition

RenaissanceRe is a holding company, and we therefore rely on dividends from our subsidiaries and investment income to make principal and interest payments on our debt and to make 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. For example, insurance laws require our insurance subsidiaries to maintain certain measures of solvency and liquidity. The regulations governing our and our principal operating subsidiaries' ability to pay dividends are discussed in detail in "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, Liquidity and Capital Resources, Financial Condition" and "Note 17. Statutory Requirements" in our "Notes to the Consolidated Financial Statements" in our Form 10-K for the year ended December 31, 2018.

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.

Our subsidiaries also 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. See “Capital Resources” section below.

Dividends and return of capital by our principal operating subsidiaries to RenaissanceRe, net of capital contributions by RenaissanceRe to our principal operating subsidiaries, were $309.7 million during the three months ended March 31, 2019 (2018 - $78.1 million).

During late 2018 we experienced significant losses from large loss events and as we would expect following events of this magnitude, it was necessary for RenaissanceRe to contribute capital to certain of its 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. We believe RenaissanceRe and our principal operating subsidiaries continue to be adequately capitalized following the events noted above.

Group Supervision

The Bermuda Monetary Authority (“BMA”) is our group supervisor. Under the Insurance Act 1978, amendments thereto and related regulations of Bermuda (collectively, the “Insurance Act”), we are required to maintain capital at a level equal to our enhanced capital requirement (“ECR”), which is established by reference to the Bermuda Solvency Capital Requirement (the “BSCR”) model. The BSCR is a mathematical model designed to give the BMA robust methods for determining an insurer’s capital adequacy. Underlying the BSCR is the belief that all insurers should operate on an ongoing basis with a view to maintaining their capital at a prudent level in excess of the minimum solvency margin otherwise prescribed under the Insurance Act. At March 31, 2019, we believe the statutory capital and surplus of our group exceeded the minimum amount required to be maintained under Bermuda law. We are currently completing our 2018 group BSCR, which must be filed with the BMA on or before May 31, 2019, and we believe we will exceed the minimum amount required to be maintained under Bermuda law.

Class 3A, 3B and 4 insurers and insurance groups are also required to prepare and publish a financial condition report (“FCR”). The FCR provides, among other things, details of measures governing the business operations, corporate governance framework and solvency and financial performance of the insurer or insurance group. We received approval from the BMA to file a consolidated group FCR, inclusive of our Bermuda-domiciled insurance subsidiaries and Top Layer Re. Our most recent FCR is available on our website.

Bermuda

Bermuda regulations require BMA approval for any reduction of capital in excess of 15% of statutory capital, as defined in the Insurance Act. The Insurance Act also requires the Bermuda insurance subsidiaries of RenaissanceRe to maintain certain measures of solvency and liquidity. At March 31, 2019, we believe the statutory capital and surplus of our Bermuda insurance subsidiaries exceeded the minimum amount required to be maintained under Bermuda law.

Under the Insurance Act, RenaissanceRe Specialty U.S. and Vermeer are defined as Class 3B insurers, and DaVinci and Renaissance Reinsurance are classified as Class 4 insurers, and must each maintain capital at a level equal to an ECR which is established by reference to the BSCR model. The 2018 BSCR for DaVinci, Renaissance Reinsurance and RenaissanceRe Specialty U.S. was filed with the BMA on or before the April 30, 2019 filing deadline, and each company exceeded the minimum amount required to be maintained under Bermuda law. Vermeer was not required to file a BSCR for 2018. In addition, audited annual financial statements prepared in accordance with GAAP for each of DaVinci, Renaissance Reinsurance, RenaissanceRe Specialty U.S. and Vermeer are filed prior to April 30 of each year with the BMA, if applicable, and are available free of charge on the BMA’s website. RenaissanceRe Europe’s Bermuda branch is also registered as a Class 3B insurer under the Insurance Act. However, for the year ended December 31, 2018, it applied for and was granted exemptions and modifications to the requirements to file an annual statutory financial return, maintain minimum levels of statutory capital and surplus and file a capital and solvency return.

U.K.

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 (“FAL”). The amount of FAL is determined by Lloyd’s and is based on Syndicate 1458’s solvency and capital requirement as calculated through its internal model. In addition, if the FAL are not sufficient to cover all losses, the Lloyd’s Central Fund provides an additional level of security for policyholders. At March 31, 2019, the FAL required to support the underwriting activities at Lloyd’s through Syndicate 1458 was £514.4 million (December 31, 2018 - £427.5 million). Actual FAL posted for Syndicate 1458 at March 31, 2019 was £519.6 million, supported by a $255.0 million letter of credit and a $422.5 million deposit of cash and fixed maturity securities (December 31, 2018 - $180.0 million and $390.8 million, respectively). See “Note 8. Debt and Credit Facilities” in our “Notes to the Consolidated Financial Statements” for additional information related to this letter of credit facility.

RenaissanceRe Europe’s U.K. branch is authorized by the Prudential Regulation Authority (the “PRA”), and is regulated by both the PRA and Financial Conduct Authority (the “FCA”). It is subject to the Solvency II regime and applied for and was granted a modification of the rules for the year ended December 31, 2018.

RenaissanceRe UK is authorized by the PRA, and is regulated by both the PRA and FCA. RenaissanceRe UK is subject to the Solvency II regime and applied for and was granted waivers of certain reporting requirements for the year ended December 31, 2018, including in respect of group supervision. As of December 31, 2018 it met its minimum capital and surplus requirements. RenaissanceRe UK was required to prepare a FCR for the year ended December 31, 2018, which is available on our website.

U.S.

Renaissance Reinsurance U.S. is domiciled in Maryland, which has adopted the NAIC's model law that uses a risk-based capital ("RBC") model to monitor and regulate the solvency of licensed life, health, and property and casualty insurance and reinsurance companies. The RBC calculation is used to measure an insurer's capital adequacy with respect to the risk characteristics of the insurer's premiums written and net claims and claim expenses, rate of growth and quality of assets, among other measures. At March 31, 2019, we believe the statutory capital and surplus of Renaissance Reinsurance U.S. exceeded the minimum capital adequacy level required to be maintained under U.S. law.

Renaissance Reinsurance U.S. is subject to certain restrictions on its ability to pay dividends pursuant to Maryland law, including making appropriate filings with and obtaining certain approvals from its regulator. During 2019, Renaissance Reinsurance U.S. will have an ordinary dividend capacity of $31.2 million (2018 - $24.1 million).

RenaissanceRe Europe’s U.S. branch is required to file financial statements prepared in accordance with statutory accounting practices prescribed or permitted by the U.S. insurance regulators. Its minimum required statutory capital and surplus is based on the greater of the RBC level that would trigger regulatory action or minimum requirements per state insurance regulation. At March 31, 2019, we believe RenaissanceRe Europe’s U.S. branch exceeded the minimum required statutory capital and surplus requirement and also exceeded the RBC minimum required level.

RenaissanceRe Europe’s U.S. branch does not pay ordinary dividends and would need approval from the New York State Department of Financial Services for any return of capital to RenaissanceRe Europe.

Switzerland

RenaissanceRe Europe is regulated by the Swiss Financial Market Supervisory Authority (“FINMA”) pursuant to the Insurance Supervision Act. Its accounts are prepared in accordance with the Swiss Code of Obligations, the Insurance Supervision Act and the Insurance Supervision Ordinance. RenaissanceRe Europe is obligated to maintain a minimum level of capital based on the Swiss Code of Obligations and Insurance Supervision Act. In addition, it is required to perform a minimum solvency margin calculation based on the Swiss Solvency Test (“SST”) regulations as stipulated by the Insurance Supervision Act and the Insurance Supervision Ordinance. The SST is based on an economic view and required capital is derived from a combination of internal and standard models. The amount of dividends that RenaissanceRe Europe is permitted to distribute is restricted to freely distributable reserves which consist of retained earnings and the current year profit. The solvency and capital requirements must still be met following any distribution. At March 31, 2019, we believe RenaissanceRe Europe exceeded the minimum solvency and capital requirements.

RenaissanceRe Europe was required to prepare a FCR for the year ended December 31, 2018, which is available on our website.

Australia

RenaissanceRe Europe's Australia branch is regulated by the Australian Prudential Regulation Authority ("APRA") and is authorized to carry on insurance business under subsection 12(2) of the Insurance Act 1973. RenaissanceRe Europe's Australia branch's regulatory reporting is prepared in accordance with the Australian Accounting Standards and APRA Prudential Standards. APRA Prudential Standards require the maintenance of net assets in Australia in excess of a calculated Prescribed Capital Amount ("PCA"). The net assets in Australia at March 31, 2019 were above the PCA estimated under the APRA Prudential Standards.

Top Layer Re

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.

Liquidity and Cash Flows

Holding Company Liquidity

As a Bermuda-domiciled holding company, RenaissanceRe has limited operations of its own and its assets consist primarily of investments in subsidiaries, and, to a degree, cash and securities in amounts which fluctuate over time. Accordingly, RenaissanceRe's future cash flows largely depend on the availability of dividends or other statutorily permissible payments from our subsidiaries. As discussed above, the ability to pay such dividends is limited by the applicable laws and regulations in the various jurisdictions in which our subsidiaries operate.

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 recent acquisition of the TMR Group Entities 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.

Sources of Liquidity

Historically, cash receipts from operations, consisting of premiums and investment income, have provided sufficient funds to pay losses and operating expenses of our subsidiaries and to fund dividends to RenaissanceRe. 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.

In addition, we maintain letter of credit facilities which provide liquidity. Refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Liquidity and Capital Resources, Capital Resources” in our Form 10-K for the year ended December 31, 2018 and “Part I, Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Capital Resources” in our Form 10-Q for the three months ended March 31, 2019 for details of these facilities.

Cash Flows

Three months ended March 31,	**2019**	**2018**
(in thousands)		
Net cash provided by (used in) operating activities	$ 377,149	$ (37,349)
Net cash used in investing activities	(616,042)	(704,719)
Net cash provided by financing activities	152,538	26,906
Effect of exchange rate changes on foreign currency cash	(292)	1,543
Net decrease in cash and cash equivalents	(86,647)	(713,619)
Cash and cash equivalents, beginning of period	1,107,922	1,361,592
Cash and cash equivalents, end of period	$ 1,021,275	$ 647,973

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 10. 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 10. 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 $170.6 million principally due to improved performances from our fixed maturity, 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 the TMR Group Entities 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 Group Entities of $537.4 million. See “Note 3. Acquisition of Tokio Millennium Re” in our “Notes to the Consolidated Financial Statements” for additional information related to the acquisition of the TMR Group Entities.

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 the TMR Stock Purchase;
- 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.

2018

During the first quarter of 2018, our cash and cash equivalents decreased $713.6 million, to $648.0 million at March 31, 2018, compared to $1.4 billion at December 31, 2017.

Cash flows used in operating activities. Cash flows used in operating activities during the first quarter of 2018 were $37.3 million, compared to cash flows provided by operating activities of $201.0 million during the first quarter of 2017. Cash flows used in operating activities during the first quarter of 2018 were primarily the result of certain adjustments to reconcile our net income of $92.2 million to net cash used in operating activities, including:

- a decrease in other operating cash flows of $632.4 million primarily reflecting subscriptions received in advance of the issuance of Upsilon RFO’s non-voting preference shares effective January 1, 2018, which were recorded in other liabilities at December 31, 2017. During the first quarter of 2018, 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 on our consolidated statements of cash flows for the first quarter of 2018. See “Note 10. 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 $484.1 million due to the timing of renewals;
- increases in premiums receivable and deferred acquisition costs of $380.0 million and $50.5 million, respectively, due to the timing of payments of our gross premiums written and amortization of deferred acquisition costs, respectively;
- an increase of $261.4 million in our prepaid reinsurance premiums due to ceded premiums written associated renewals in the first quarter of 2018; and
- a decrease in our reserve for claims and claim expenses of $167.7 million as a result of claims and claims expenses incurred of $225.7 million during the first quarter of 2018, more than offset by claims payments of $405.5 million, largely associated with the 2017 Large Loss Events.

Cash flows used in investing activities. During the first quarter of 2018, our cash flows used in investing activities were $704.7 million, principally reflecting net purchases of short term and other investments of $594.6 million and $98.6 million, respectively.

Cash flows provided by financing activities. Our cash flows provided by financing activities in the first quarter of 2018 were $26.9 million, and were principally the result of:

- net inflows of $52.8 million related to a net contribution of capital from third-party shareholders, principally in Medici; partially offset by
- dividends paid on our common and preferred shares of $13.2 million and $5.6 million, respectively.

Capital Resources

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, 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, 2019	At December 31, 2018	Change
Common shareholders' equity	$ 4,904,033	$ 4,395,080	$ 508,953
Preference shares	650,000	650,000	—
Total shareholders' equity attributable to RenaissanceRe	5,554,033	5,045,080	508,953
3.450% Senior Notes due 2027	295,920	295,797	123
3.700% Senior Notes due 2025	297,779	297,688	91
5.750% Senior Notes due 2020	249,683	249,602	81
4.750% Senior Notes due 2025 (DaVinciRe) (1)	148,117	148,040	77
RenaissanceRe Revolving Credit Facility (2)	200,000	—	200,000
Total debt	$ 1,191,499	$ 991,127	$ 200,372
Total shareholders' equity attributable to RenaissanceRe and debt	$ 6,745,532	$ 6,036,207	$ 709,325

(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 drawn amount of our revolving credit facility is included on our consolidated balance sheets under debt and also included in the table below as part of our significant credit facilities. The amount was drawn in connection with the acquisition of the TMR Group Entities. See "Note 3. Acquisition of Tokio Millennium Re" in our "Notes to the Consolidated Financial Statements" for additional information related to the acquisition of the TMR Group Entities.

During the three months ended March 31, 2019, our total shareholders' equity attributable to RenaissanceRe and debt increased by $709.3 million, to $6.7 billion.

Our shareholders' equity attributable to RenaissanceRe increased $509.0 million during the three months ended March 31, 2019 principally as a result of:

- our comprehensive income attributable to RenaissanceRe of $282.9 million;
- the issuance of 1,739,071 of our common shares to Tokio in connection with the TMR Stock Purchase; and partially offset by
- $14.5 million and $9.2 million of dividends on our common and preference shares, respectively.

Our debt increased $200.4 million during the three months ended March 31, 2019 principally as a result of $200.0 million that was drawn under our revolving credit facility to partially fund the purchase price for the TMR Stock Purchase. On April 2, 2019, we issued $400.0 million of 3.600% Senior Notes due April 15, 2029. The net proceeds from this offering were used to repay, in full, the $200.0 million that was outstanding under our revolving credit agreement at March 31, 2019, and the remainder of the net proceeds will be used for general corporate purposes. See "Note 3. Acquisition of Tokio Millennium Re" in our "Notes to the Consolidated Financial Statements" for additional information regarding the acquisition of the TMR Group Entities and "Note 17. Subsequent Events" in our "Notes to the Consolidated Financial Statements" for additional information regarding the issuance, subsequent to March 31, 2019, of our 3.600% Senior Notes Due 2029.

Credit Facilities

The outstanding amounts drawn under each of our significant credit facilities is set forth below:

At March 31, 2019	Issued or Drawn
RenaissanceRe Revolving Credit Facility (1)	$ 200,000
Uncommitted Standby Letter of Credit Facility with Wells Fargo	32,009
Secured Letter of Credit Facility with Citibank Europe	238,956
Renaissance Reinsurance FAL Facility	255,000
Mizuho Letters of Credit (2)	385,975
Mitsubishi Letters of Credit (2)	205,956
Credit Suisse Letter of Credit Facility	75,097
Uncommitted, Unsecured Letter of Credit Facility with Citibank Europe (3)	—
Total credit facilities in U.S. dollars	$ 1,392,993
Specialty Risks FAL Facility (3)	£ —
Total credit facilities in pound sterling	£ —

(1) The drawn amount of our revolving credit facility is included on our consolidated balance sheet under debt and is also included in the table above as part of our significant credit facilities. The amount was drawn in connection with the acquisition of the TMR Group Entities. See "Note 3. Acquisition of Tokio Millennium Re" in our "Notes to the Consolidated Financial Statements" for additional information related to the acquisition of the TMR Group Entities.

(2) These letters of credit were transferred to us in connection with the acquisition of the TMR Group Entities. See "Note 3. Acquisition of Tokio Millennium Re" in our "Notes to the Consolidated Financial Statements" for additional information related to the acquisition of the TMR Group Entities.

(3) At March 31, 2019, no amounts were issued or drawn under these facilities.

During the quarter ended March 31, 2019, we amended certain of its existing credit facilities and entered into several new credit facilities following the TMR Stock Purchase to address the need to transfer or replace certain letters of credit that were transferred to us as a result of the acquisition of the TMR Group Entities. In addition, we exercised our option to increase the FAL Facility letter of credit by $75.0 million. The amendments to the existing credit facilities and new credit facilities are described further in “Note 8. Debt and Credit Facilities” in our “Notes to the Consolidated Financial Statements”. There have been no other material changes to our credit facilities as disclosed in our Form 10-K for the year ended December 31, 2018.

For additional information related to the terms of our debt and significant credit facilities, see “Note 8. Debt and Credit Facilities” in our “Notes to Consolidated Financial Statements” and “Note 8. Debt and Credit Facilities” in our “Notes to the Consolidated Financial Statements” in our Form 10-K for the year ended December 31, 2018. Refer to “Note 11. Shareholders’ Equity” in our “Notes to the Consolidated Financial Statements” in our Form 10-K for additional information related to our common and preference shares.

Multi-Beneficiary Reinsurance Trusts

Assets held under trust at March 31, 2019 with respect to our multi-beneficiary reinsurance trusts totaled $1.3 billion and $325.9 million for Renaissance Reinsurance and DaVinci, respectively (December 31, 2018 - $1.2 billion and $385.8 million, respectively), compared to the minimum amount required under U.S. state regulations of $1.0 billion and $307.0 million, respectively, at March 31, 2019 (December 31, 2018 - $1.1 billion and $356.9 million, respectively).

Multi-Beneficiary Reduced Collateral Reinsurance Trusts

Assets held under trust at March 31, 2019 with respect to our multi-beneficiary reduced collateral reinsurance trusts totaled $50.7 million and $63.7 million for Renaissance Reinsurance and DaVinci, respectively (December 31, 2018 - $50.3 million and $63.2 million, respectively), compared to the minimum amount required under U.S. state regulations of $35.1 million and $26.7 million, respectively (December 31, 2018 - $36.8 million and $26.9 million, respectively).

Redeemable Noncontrolling Interest – DaVinciRe

Our noncontrolling economic ownership in DaVinciRe was 22.1% at March 31, 2019 (December 31, 2018 - 22.1%). See “Note 9. Noncontrolling Interests” in our “Notes to Consolidated Financial Statements” for additional information related to DaVinciRe.

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 3, 2019 are presented below.

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

(1) The A.M. Best, S&P, Moody's and Fitch ratings for the companies set forth in the table above reflect the insurer's financial strength rating and, in addition to the insurer's financial strength rating, the S&P ratings reflect the applicable insurer's long-term issuer credit rating.

(2) The A.M. Best, S&P and Fitch ratings for the Lloyd's Overall Market Rating represent Syndicate 1458's financial strength rating.

(3) The A.M. Best rating for RenaissanceRe reflects a very strong Enterprise Risk Management ("ERM") score within A.M. Best's credit ratings methodology. The S&P rating for RenaissanceRe represents the rating on its ERM practices.

On March 22, 2019, following the closing of the acquisition of the TMR Group Entities, A.M. Best removed from under review with developing implications and affirmed the long-term issuer credit and financial strength ratings of RenaissanceRe, Renaissance Reinsurance, Davinci, Renaissance Reinsurance U.S., RenaissanceRe Specialty U.S. and Renaissance Reinsurance of Europe, affirmed the ratings of Vermeer, and aligned the ratings of RenaissanceRe Europe with those of our other entities. The ratings were assigned a "stable" outlook.

On March 25, 2019, S&P revised its outlook on RenaissanceRe and its operating subsidiaries to stable from negative. In addition, S&P removed its ratings on RenaissanceRe Europe from CreditWatch with negative implications, where they were placed on November 2, 2018, and affirmed its "A+" issuer credit rating and financial strength rating on RenaissanceRe Europe. The ratings on RenaissanceRe UK remain on CreditWatch negative, where they were placed November 2, 2018.

As of May 3, 2019, there were no other material changes to our ratings as disclosed in our Form 10-K for the year ended December 31, 2018.

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. We establish our claims and claim expense reserves by taking claims reported to us by insureds and ceding companies, but which have not yet been paid ("case reserves"), adding IBNR and, if deemed necessary, adding costs for additional case reserves. Additional case reserves represent our estimates for claims related to specific contracts previously reported to us which we believe may not be adequately estimated by the client as of that date, or adequately covered in the setting of IBNR.

Our reserving techniques, assumptions and processes differ among our Property and Casualty and Specialty segments. See "Note 7. Reserve for Claims and Claim Expenses" in our "Notes to the Consolidated Financial Statements" included herein for more information on prior year development of the reserve for claims and claim expenses and analysis of our incurred and paid claims development for each of our Property and Casualty and Specialty segments. See “Note 7. 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, 2018 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, 2018 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, 2019		December 31, 2018		Change
U.S. treasuries	$ 3,097,089	20.9%	$ 3,331,411	28.0%	$ (234,322)
Agencies	182,904	1.2%	174,883	1.5%	8,021
Municipal	256,967	1.7%	6,854	0.1%	250,113
Non-U.S. government	687,021	4.6%	279,818	2.4%	407,203
Non-U.S. government-backed corporate	286,331	1.9%	160,063	1.3%	126,268
Corporate	2,971,018	20.0%	2,450,244	20.6%	520,774
Agency mortgage-backed	955,616	6.4%	817,880	6.8%	137,736
Non-agency mortgage-backed	272,880	1.8%	278,680	2.4%	(5,800)
Commercial mortgage-backed	245,323	1.7%	282,294	2.4%	(36,971)
Asset-backed	518,011	3.5%	306,743	2.6%	211,268
Total fixed maturity investments, at fair value (1)	9,473,160	63.7%	8,088,870	68.1%	1,384,290
Short term investments, at fair value (1)	4,012,815	27.1%	2,586,520	21.8%	1,426,295
Equity investments trading, at fair value (1)	389,937	2.6%	310,252	2.6%	79,685
Other investments, at fair value (1)	878,373	5.9%	784,933	6.5%	93,440
Total managed investment portfolio	14,754,285	99.3%	11,770,575	99.0%	2,983,710
Investments in other ventures, under equity method	98,563	0.7%	115,172	1.0%	(16,609)
Total investments (1)	$ 14,852,848	100.0%	$ 11,885,747	100.0%	$ 2,967,101

(1) Included in total investments at March 31, 2019 is $2.3 billion of investments acquired as a result of the acquisition of the TMR Group Entities, comprised of $2.2 billion of fixed maturity investments trading, $108.6 million of short term investments and $41.2 million of other investments. See “Note 3. Acquisition of Tokio Millennium Re” in our “Notes to the Consolidated Financial Statements” for additional information related to the acquisition of the TMR Group Entities.

At March 31, 2019, we held investments totaling $14.9 billion, compared to $11.9 billion at December 31, 2018. 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 4. Investments” and “Note 5. 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, municipals, 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, hedge funds and miscellaneous other investments). At March 31, 2019, our portfolio of equity investments trading totaled $389.9 million, or 2.6%, of our total investments (December 31, 2018 - $310.3 million or 2.6%). Our portfolio of other investments totaled $878.4 million, or 5.9%, of our total investments at March 31, 2019 (December 31, 2018 - $784.9 million or 6.5%).

Other Investments

The table below shows our portfolio of other investments:

(in thousands)	March 31, 2019	December 31, 2018	Change
Catastrophe bonds	$ 556,380	$ 516,571	$ 39,809
Private equity investments	253,566	242,647	10,919
Senior secured bank loan funds	15,674	14,482	1,192
Hedge funds	11,585	11,233	352
Miscellaneous other investments	41,168	—	41,168
Total other investments	$ 878,373	$ 784,933	$ 93,440

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 investment income for the three months ended March 31, 2019 is a loss of $5.9 million (2018 - a loss of $0.1 million) representing the change in estimate during the period related to the difference between our estimated net investment income 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 5. 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 $702.5 million has been contributed at March 31, 2019. Our remaining commitments to these investments at March 31, 2019 totaled $457.6 million. In the future, we may enter into additional commitments in respect of private equity investments or individual portfolio company investment opportunities.

EFFECTS OF INFLATION

The potential exists, after a catastrophe loss, for the development of inflationary pressures in a local economy. We consider the anticipated effects 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. In addition, 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. 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.

OFF-BALANCE SHEET AND SPECIAL PURPOSE ENTITY ARRANGEMENTS

At March 31, 2019, 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, 2018. We consider these contractual obligations when assessing our liquidity requirements. As of March 31, 2019, 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, 2018, except as described below.

On March 22, 2019, as a result of the acquisition of the TMR Group Entities, which was accounted for under the acquisition method of accounting in accordance with FASB ASC Topic *Business Combinations*, total consideration paid was allocated among acquired assets and assumed liabilities based on the fair values of the assets acquired and liabilities assumed. See “Note 3. Acquisition of Tokio Millennium Re” in our “Notes to the Consolidated Financial Statements” for additional information related to the acquisition of the TMR Group Entities.

Reserve for Claims and Claim Expenses

Claims and claim expense reserves acquired in the acquisition of the TMR Group Entities totaled $2.4 billion at March 22, 2019. Because of the nature of the coverages that we provide, the amount and timing of the cash flows associated with our policy liabilities will fluctuate, perhaps significantly, and therefore are highly uncertain.

3.600% Senior Notes Due 2029

On April 2, 2019, we issued $400.0 million of our 3.600% Senior Notes due April 15, 2029. The net proceeds from this offering were used to repay, in full, the $200.0 million outstanding under our revolving credit facility at March 31, 2019, which we used to partially fund the purchase price for the TMR Stock Purchase, and the remainder of the net proceeds will be used for general corporate purposes. See “Note 17. Subsequent Events” in our “Notes to the Consolidated Financial Statements” for additional information regarding the issuance, subsequent to March 31, 2019, of our 3.600% Senior Notes Due 2029.

CURRENT OUTLOOK

Property Exposed Market Developments

In 2018, the insurance and reinsurance markets were impacted by large loss events including Typhoons Jebi, Mangkut and Trami, Hurricanes Florence and Michael in the U.S., wildfires across the state of California, and numerous other events around the world. We currently estimate that these events gave rise to more than $80 billion of industry-wide insured losses. These significant 2018 events follow a number of significant natural disasters in 2017, including Hurricanes Harvey, Irma and Maria, the Mexico City Earthquake in the third quarter of 2017, and earlier wildfires in many areas of California.

Given the nature and breadth of these events, the associated losses have affected an unusually large number of regions, and, accordingly, insureds, reinsurance lines and reinsurers. In addition, the ultimate scale of the losses, loss estimation, length of payout periods, social inflation risk and other factors continue to be uncertain for these loss events, both for the individual events and in the aggregate. In addition, in 2018 the insurance industry experienced significant ongoing adverse development on the 2017 Large Loss Events, most notably Hurricane Irma. We estimate that, by itself, the industry's 2018 adverse development on Hurricane Irma would have been one of the largest events of 2018 on an insured loss basis. We believe that this adverse development arose from underestimations of exposure and incurred loss; aggressive litigation and adjustment practices, particularly but not limited to in the state of Florida; other elevated loss adjustment expenses; and other factors. We believe that revised views of risk as a result of this experience may contribute favorably to market conditions in future periods, although there can be no assurance that this will occur.

Overall, the January 2019 renewal season was generally stable. However, when viewed as a whole, loss affected programs and lines did manifest improved terms and conditions, and other property-exposed coverages have also exhibited beneficial changes, particularly retrocessional coverages. These developments facilitated our growth in gross premiums written, both in our existing operations and more particularly by presenting opportunities to deploy additional third party capital. We believe it is possible that the developments described above may contribute to overall market dynamics that could continue to sustain improving market conditions in lines and regions we target and in which we have differentiating expertise. In particular, we believe that these large loss events, the scale and pace of adverse development and other market dynamics have helped drive demand for complex, holistic product coverages, for which we believe we have competitive advantages. However, at this time we cannot know with certainty whether any such positive developments will transpire or be sustained, or the degree to which we will continue to benefit from them.

We expect that over time reinsurance demand for many coverages and solutions will continue to lag the pace of growth in available capital and we believe we are well positioned to benefit from these developments as shown, for example, in our efforts to optimize our gross-to-net portfolio. However, we estimate that to date in 2019 capital supply from alternative capital providers has not, for the first time in some time, continued to grow. In any case, over the medium and longer term, we anticipate the market will be characterized by an ample supply of capital, including third party capital, notwithstanding the significant impacts of the large loss events of 2017 and 2018.

Furthermore, cedants in many of the key markets we serve are large and increasingly sophisticated. They may be able to manage large and growing retentions, access risk transfer capital in expanding forms, and may seek to focus their reinsurance relationships on a core group of well-capitalized, highly-rated reinsurers who can provide a complete product suite as well as value-added service. While we believe we are well positioned to compete for business we find attractive, these 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 generally experienced favorable rate trends and stable terms and conditions in respect of the early 2019 renewals. In particular, we have 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 believe that current pricing trends exhibited during the year are likely to continue, with terms and conditions for loss-affected lines of business, such as the liability exposures impacted by the California wildfires, continuing to show moderate improvement and certain other areas of the casualty and specialty market potentially maintaining less pronounced but positive adjustments. Moreover, we believe that pockets of casualty and specialty lines may provide attractive opportunities for stronger or well-positioned reinsurers and that, given our strong ratings, expanded product offerings, and increased U.S. market presence, we are well positioned to compete for business that we find attractive, such as the large, bespoke coverages we have structured and provided for the California wildfire liability market. At the same time, we also estimate that underlying loss costs for many casualty and specialty lines of business have continued to rise. We plan to continue to seek unique or differentiated opportunities to provide coverage on large programs open only to us or select markets. However, these opportunities arise sporadically, and we cannot assure that we will retain these programs or obtain new programs of this nature in the future.

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.

General Economic Conditions

Underlying economic conditions in several of the key markets we serve remained generally stable in 2019, with certain of our core markets, including the U.S., experiencing economic growth. Economic growth contributes positively to demand for our coverages and services, particularly in jurisdictions with high insurance penetration and the potential for risk concentration.

We continue to believe that meaningful risk remains for political and economic uncertainty, economic weakness or adverse disruptions in general economic and financial market conditions. Moreover, any future economic growth may be at a comparatively suppressed rate for a relatively extended period of time. Declining or weak economic conditions could reduce demand for the products sold by us or our customers, impact the risk-adjusted attractiveness and absolute returns and yields of our investment portfolio, or weaken our overall ability to write business at risk-adequate rates. Persistent low levels of economic activity could also adversely impact other areas of our financial performance, by contributing to unforeseen premium adjustments, mid-term policy cancellations or commutations or asset devaluation, among other things. In addition, it is possible that increasing uncertainties related to cross-border trade will diminish economic growth for specific sectors which drive the insurance market disproportionately. Our specialty and casualty reinsurance and Lloyd’s portfolios in particular could be exposed to risks arising from economic weakness or dislocations, including with respect to a potential increase of claims in directors and officers, errors and omissions, surety, casualty clash and other lines of business. In addition, we believe our consolidated credit risk, reflecting our counterparty dealings with customers, agents, brokers, retrocessionaires, capital providers and parties associated with our investment portfolio, among others, is likely to be higher during a period of economic weakness. Any of the foregoing or other outcomes of a period of economic weakness could adversely impact our financial position or results of operations.

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. More recently, we have seen increases in interest rates, and as we invest cash from new premiums written or reinvest the proceeds of invested assets that mature or that we choose to sell, the yield on our portfolio may be favorably impacted by the increasing interest rate environment. However, such an increase in prevailing interest rates could contribute to higher realized and unrealized losses associated with our currently invested assets in the near term. While it is possible yields will improve in future periods, we are unable to predict with certainty when conditions will substantially improve, or the pace of any such improvement.

We continue to monitor the risk that our principal markets will experience increased inflationary conditions and believe this risk is increasing. Inflationary conditions would cause costs related to our claims and claim expenses to increase and impact the performance of our investment portfolio, among other things. The onset, duration and severity of an inflationary period cannot be estimated with precision.

Legislative and Regulatory Update

The Tax Bill was signed into law on December 22, 2017. The Tax Bill amends a range of U.S. federal tax rules applicable to individuals, businesses and international taxation, including, among other things, altering the current taxation of insurance premiums ceded from a U.S. domestic corporation to any non-U.S. affiliate. The Tax Bill and future regulatory actions pertaining to it could adversely impact the insurance and reinsurance industry and our own results of operations by increasing taxation of certain activities and structures in our industry. We are unable to predict all of the ultimate impacts of the Tax Bill and other proposed tax reform regulations and legislation on our business and results of operations. While we continue to estimate that the near term economic impact of the Tax Bill to us will be minimal, uncertainty regarding the impact of the Tax Bill remains, as a result of factors including future regulatory and rulemaking processes, the prospects of additional corrective or supplemental legislation, potential trade or other litigation and other factors. Further, it is possible that other legislation could be introduced and enacted in the future that would have an adverse impact on us.

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 2018, FEMA announced that it had renewed its reinsurance program to provide for $1.32 billion of protection in respect of 2019, covering 14% of NFIP’s losses between $4 billion and $6 billion, 25.6% of its losses between $6 billion and $8 billion, and 26.6% 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 May 31, 2019. Legislative language under consideration in the House of Representatives would clarify that flood insurance provided by private firms satisfies the requirement that homeowners maintain flood coverage on mortgaged properties that are backed by a federal guarantee and located in a flood zone. 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. Congress is also considering legislative language that would direct FEMA to consider policy holders 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, reauthorization of the

NFIP remains subject to meaningful uncertainty; and whether a successful reauthorization would continue market-enhancing reforms is significantly uncertain. Accordingly, 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. Among other things, the AOB Reform Bill is intended to change the way attorneys’ fees are calculated to provide less incentive for plaintiff attorneys to file frivolous suits; requires written notice to the insurer of a filing; more clearly informs insureds of their rights; allows Florida domestic insurers the option of offering policies with and without AOB language included; and requires service providers in Florida to give an insurer and the consumer prior written notice of at least 10 business days before filing suit on a claim. We are cautiously optimistic that this law will eliminate some of the more egregious practices that have contributed to adverse industry results in Florida. However, we believe that the likely estimated impact to exposed loss in reinsurance treaties and programs will not be material. Moreover, media outlets have reported that there has been a measurable spike in AOB filings before the bill effective date of July 1, 2019 and that plaintiff firms have announced identified “workarounds” to the AOB Reform Bill provisions. In addition the AOB Reform Bill is not intended to remediate the adverse impacts of prior practices in respect of the large losses in 2017 and 2018. 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. Accordingly, 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 submitted at attractive risk-adjusted terms.

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, 2018, during the three months ended March 31, 2019, 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, 2018 for a discussion of our exposure to these risks.

In connection with the acquisition of the TMR Group Entities, we anticipate a modest increase in our foreign currency risk as it relates to: (i) the potential for increased volatility in our realized and unrealized foreign exchange gains (losses) in our consolidated statements of operations resulting from the addition of foreign currency denominated assets and liabilities, and (ii) non-U.S. dollar functional currency for certain of the TMR Group Entities and the resulting impact from currency translation adjustments in our statement of changes in shareholders' equity as the non-U.S. dollar financial statements are translated into U.S. dollars.

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, 2019, 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, 2019, 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, 2018.

ITEM 1A. RISK FACTORS

There have been no material changes to the risk factors previously disclosed in our Form 10-K for the year ended December 31, 2018. Certain of these risk factors were updated in our prospectus supplement filed with the SEC on April 1, 2019.

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 2019, 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, 2019	—	$ —	—	$ —	—	$ —	—
February 1 - 28, 2019	4,564	$ 141.62	4,564	$ 141.62	—	$ —	—
March 1 - 31, 2019	43,295	$ 146.10	43,295	$ 146.10	—	$ —	—
Total	47,859	$ 145.67	47,859	$ 145.67	—	$ —	$ 500,000

During the three months ended March 31, 2019, we did not repurchase any of our common shares in open market transactions under our share repurchase program. In the future, we may authorize additional purchase activities under the currently authorized share repurchase program, increase the amount authorized under the share repurchase program, or adopt additional trading plans.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

4.1 Second Supplemental Indenture, dated March 25, 2019, by and among RenaissanceRe Finance Inc., as issuer, RenaissanceRe Holdings Ltd., as guarantor, and Deutsche Bank Trust Company Americas, as trustee. (1)

4.2 Senior Indenture, dated as of April 2, 2019, by and between RenaissanceRe Holdings Ltd., as issuer, and Deutsche Bank Trust Company Americas, as trustee. (2)

4.3 First Supplemental Indenture, dated as of April 2, 2019, by and between RenaissanceRe Holdings Ltd., as issuer, and Deutsche Bank Trust Company Americas, as trustee. (2)

10.1* Reserve Development Agreement, dated as of March 22, 2019, by and between Tokio Millennium Re AG, and Tokio Millennium Re (UK) Limited and Tokio Marine & Nichido Fire Insurance Co., Ltd. (3)

10.2* Retrocession Agreement, dated as of March 22, 2019, by and between Tokio Millennium Re AG and Tokio Marine & Nichido Fire Insurance Co., Ltd. (3)

10.3 Master Agreement for Issuance of Payment Instruments, dated March 22, 2019, between Citibank Europe Plc, Renaissance Reinsurance Ltd., ReinassanceRe Specialty U.S. Ltd., Renaissance Reinsurance U.S. Inc. and RenaissanceRe Europe AG. (4)

10.3(a) Facility Letter for Issuance of Payment Instruments, dated March 22, 2019 between Citibank Europe Plc, Renaissance Reinsurance Ltd., ReinassanceRe Specialty U.S. Ltd., Renaissance Reinsurance U.S. Inc. and RenaissanceRe Europe AG. (4)

10.3(b) Accession Undertaking, dated as of April 26, 2019, by and between RenaissanceRe (UK) Limited and Citibank Europe Plc.

10.4 Confirmation of Increase in Letter of Credit, dated March 13, 2019, among Renaissance Reinsurance Ltd., various Lenders party thereto, Bank of Montreal, as Documentation Agent, Citibank Europe plc, as Collateral Agent, and ING Bank N.V., London Branch, as Letter of Credit Agent.

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 XBRL Taxonomy Extension Schema Document

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.LAB XBRL Taxonomy Extension Label Linkbase Document

101.DEF XBRL Taxonomy Extension Definition Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

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

(1) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the Commission on March 26, 2019.

(2) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the Commission on April 2, 2019.

(3) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the Commission on March 22, 2019.

(4) Incorporated by reference to RenaissanceRe Holdings Ltd.'s Current Report on Form 8-K, filed with the Commission on March 25, 2019.

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 8, 2019

/s/ Robert Qutub
Robert Qutub
Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Duly Authorized Officer)

Date: May 8, 2019

/s/ James C. Fraser
James C. Fraser
Senior Vice President and Chief Accounting Officer
(Principal Accounting Officer)

ACCESSION UNDERTAKING

This Accession Undertaking is dated April 26, 2019

Between

(1) **Citibank Europe plc,** a company incorporated in Ireland (with company registration number 132781) whose registered office is at 1 North Wall Quay, Dublin 1, Republic of Ireland (the "**Bank**"); and

(2) **RenaissanceRe (UK) Limited**, a private limited company duly organized and existing under the laws of England and Wales, with registered number 02553288, whose registered office is at 20 Fenchurch Street, London, EC3M 3BY, United Kingdom (the "**Acceding Party**").

Whereas

(A) Renaissance Reinsurance Ltd, RenaissanceRe Specialty U.S. Ltd, Renaissance Reinsurance U.S. Inc. and RenaissanceRe Europe AG (the "**Existing Companies**") and the Bank have entered into a master agreement for issuance of payment instruments dated March 22, 2019 (the **"Master Agreement"**); and

(B) The Acceding Party is willing to accede to the Master Agreement and certain other Facility Documents and the Companies (as defined in the Master Agreement) have consented to such accession.

<u>It is agreed:</u>

1. We refer to the Master Agreement. This is an Accession Undertaking. Terms defined in the Master Agreement have the same meaning in this Accession Undertaking unless given a different meaning in this Accession Undertaking.

2. Pursuant to clause 2.8 of the Master Agreement, the Bank and the Acceding Party agree that from the date of this Accession Undertaking the Acceding Party accedes and becomes a party to each of the Master Agreement, the Facility Letter and the Fee Letter and becomes bound by the terms of and derives rights under each of the Master Agreement, the Facility Letter and the Fee Letter as a Company.

3. For the purposes of clause 2.2 of the Master Agreement, the documents and evidence to be received by the Bank are:

   (a) each of the documents and evidence set out in Schedule 1 to the Facility Letter, as applicable, but with each reference to the Existing Company being the Acceding Company;

   (b) confirmation from the Guarantor that the Guarantee shall extend to the obligations of the Acceding Company under the Facility Documents;

   (c) such other documents and other evidence as the Bank may reasonably require prior to the date of issuance of the first Payment Instrument in respect of the Acceding Company.

4. The Acceding Party's notice and administrative details are as follows:

   Address: 18th Floor, 125 Old Broad Street, London EC2N 1AR, United Kingdom

   Fax No: +44 (0) 20 7074 3888

   Telephone: +44 (0) 20 7397 4045

   Attention: Elliot Dunseath

   With a copy of any notices sent to:

   Address: RenaissanceRe Holdings Ltd., Renaissance House, 12 Crow Lane, Pembroke HM 19 Bermuda
   Fax No: (441) 296 5037
   Attention: Treasurer, Aditya Dutt

5. As from the date of this Accession Undertaking, each of the Master Agreement and this Accession Undertaking shall be read and construed as one document.

6. The Acceding Party confirms:

   (a) its knowledge and acceptance of the Master Agreement, the Facility Letter and the Fee Letter; and

(b) each of the Master Agreement, Facility Letter and Fee Letter will remain in full force and effect and will continue to constitute its legal, valid and binding obligations enforceable in accordance with their terms.

7. This Accession Undertaking and any non-contractual obligations arising out of or in connection with it are governed by English law.

8. The provisions of clause 17.1 of the Master Agreement shall be incorporated into this Accession Undertaking as if set out in full in this Accession Undertaking and as if references in that clause to the "Master Agreement" are references to this Accession Undertaking.

[Signature page follows.]

EXECUTED by	)
RenaissanceRe (UK) Limited, acting by:	)
	)
	)
Name: Hugh Brennan	)
Title: Director	) (*Sign*)*../s/ Hugh Brennan*.................................

In its capacity as the Bank

EXECUTED by	)
Citibank Europe Plc	)
acting by:	)
	)
	)
Name: Niall Tuckey	) (*Sign*)*../s/ Niall Tuckey*.................................
Title: Director	)
	)
	)
and	)
	)
	)
Name: ________________	) (*Sign*)..
Title: ________________	)

EXHIBIT 10.4

CONFIRMATION OF INCREASE IN LETTER OF CREDIT

March 13, 2019

Reference is made to the Letter of Credit Reimbursement Agreement, dated as of November 23, 2015 (as amended, restated, supplemented or otherwise modified, the "Agreement"), among Renaissance Reinsurance Ltd. (the "Borrower"), various Lenders party thereto, Bank of Montreal, as Documentation Agent, Citibank Europe plc, as Collateral Agent, and ING Bank N.V., London Branch, as Letter of Credit Agent. Capitalized terms used herein and not otherwise defined shall have the respective meanings ascribed thereto in the Agreement.

1. Pursuant to Section 2.1(a) of the Agreement, the Borrower has requested that the stated amount of the Letter of Credit described in clause (a)(i)(x) of Section 2.1 of the Agreement be increased by $75,000,000 to a stated amount of $255,000,000. Each of the Lenders hereby confirms that, effective on the Increase Effective Date it has agreed to increase the stated amount of the Letter of Credit in an amount equal to its Applicable Percentage of the $75,000,000 increase amount.

2. Each Lender (a) represents and warrants that it has made its own credit analysis and decision to increase the stated amount of the Letter of Credit and without reliance on any Agent or any other Lender and (b) agrees that (i) it will, independently and without reliance on any Agent or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Agreement and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Agreement are required to be performed by it with respect to the increase in the stated amount of the Letter of Credit.

4. Increase Effective Date: March 13, 2019; provided that on or prior to such date, (i) a Letter of Credit Application for an amendment to the Letter of Credit to increase the stated amount of the Letter of Credit has been received by the Letter of Credit Agent, (ii) the Collateral Agent has confirmed that the Eligible Collateral in the Collateral Account has a Collateral Value not less than the Required Collateral Amount after giving effect to the increase in the stated amount of the Letter of Credit and (iii) the Letter of Credit Agent has received confirmation from Lloyd's that the Managing Agent has submitted all necessary documents regarding its plan to provide Funds at Lloyd's.

5. The Borrower agrees that on the Increase Effective Date it will pay to each Lender an upfront fee in the amount of $18,750.

6. The Borrower hereby represents that (i) on the date hereof, each representation and warranty set forth in Agreement and the other Credit Documents is true and correct in all material respects on and as of the date hereof with the same effect as if made on and as of the date hereof (except to the extent any such representation or warranty relates solely to an earlier date, in which case such representation or warranty was true and correct as of such date) and (ii) no Default, Event of Default or Full Collateralization Event exists or will exist before and after giving effect to the increase in the stated amount of the Letter of Credit. The Borrower hereby confirms that the Agreement, Security Agreement, the Control Agreement and each other Collateral Document remains in full force and effect after giving effect to the increase to the stated amount of the Letter of Credit set forth herein.

7. This Confirmation shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Confirmation may be executed in any number of counterparts and by the different parties hereto on separate counterparts and each such counterpart shall be deemed to be an original, but all such counterparts shall together constitute but one and the same Confirmation. Delivery of a counterpart hereof, or a signature page hereto, by facsimile or in a .pdf or similar file shall be effective as delivery of a manually executed original counterpart thereof.

8. THIS CONFIRMATION SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK (NOT INCLUDING SUCH STATE'S CONFLICT OF LAWS PROVISIONS OTHER THAN SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW).

[*Remainder of page intentionally left blank.*]

IN WITNESS WHEREOF, the undersigned have executed this Confirmation as of the date first above written.

RENAISSANCE REINSURANCE LTD.

By: /s/ Aditya K. Dutt
Name: Aditya K. Dutt
Title: SVP, Treasurer

BANK OF MONTREAL, as Documentation Agent

By: /s/ Benjamin Mlot
Name: Benjamin Mlot
Title: Director

BANK OF MONTREAL, LONDON BRANCH, as a Lender

By: /s/ Tom Woolgar
Name: Tom Wollgar
Title: Managing Director, Corporate Banking

By: /s/ Scott Matthews
Name: Scott Matthews
Title: MD

CITIBANK EUROPE PLC., as Collateral Agent

By: /s/ Niall Tuckey
Name: Niall Tuckey
Title:

CITIBANK EUROPE PLC., as a Lender

By: /s/ Niall Tuckey
Name: Niall Tuckey
Title:

ING BANK N.V., LONDON BRANCH., as Letter of Credit Agent

By: /s/Olive Yu
Name: Olive Yu
Title: Director

By: /s/ Alan Prosser
Name: Alan Prosser
Title: Vie President

ING BANK N.V., LONDON BRANCH., as a Lender

By: /s/Olive Yu
Name: Olive Yu
Title: Director

By: /s/ Alan Prosser
Name: Alan Prosser
Title: Vie President

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 8, 2019

/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 8, 2019

/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, 2019, 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 8, 2019

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, 2019, 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 8, 2019