

HANOVER INSURANCE GROUP, INC.

Form 10-Q

November 01, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2018

or

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

For the transition period from _____ to _____

Commission File Number 1-13754

THE HANOVER INSURANCE GROUP, INC.

(Exact name of registrant as specified in its charter)

Delaware 04-3263626
(State or other jurisdiction of (I.R.S. Employer

incorporation or organization) Identification No.)

440 Lincoln Street, Worcester, Massachusetts 01653

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(Address of principal executive offices) (Zip Code)

(508) 855-1000

(Registrant's telephone number, including area code)

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

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

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

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
	Emerging growth company

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

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

The number of shares outstanding of the registrant's common stock was 42,332,507 as of October 30, 2018.

TABLE OF CONTENTS

PART I. FINANCIAL INFORMATION

Item 1. <u>Financial Statements</u>	2
<u>Consolidated Statements of Income</u>	2
<u>Consolidated Statements of Comprehensive Income</u>	3
<u>Consolidated Balance Sheets</u>	4
<u>Consolidated Statements of Shareholders' Equity</u>	5
<u>Consolidated Statements of Cash Flows</u>	6
<u>Notes to Interim Consolidated Financial Statements</u>	7

Item 2. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	31
--	----

Item 3. <u>Quantitative and Qualitative Disclosures About Market Risk</u>	54
---	----

Item 4. <u>Controls and Procedures</u>	54
--	----

PART II. OTHER INFORMATION 55

Item 1. <u>Legal Proceedings</u>	55
----------------------------------	----

Item 1A. <u>Risk Factors</u>	55
------------------------------	----

Item 2. <u>Unregistered Sales of Equity Securities and Use of Proceeds</u>	58
--	----

Item 6. <u>Exhibits</u>	59
-------------------------	----

<u>SIGNATURES</u>	60
-------------------	----

Table of Contents

PART I - FINANCIAL INFORMATION

ITEM 1 - FINANCIAL STATEMENTS

THE HANOVER INSURANCE GROUP, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME (UNAUDITED)

(In millions, except per share data)	Three Months		Nine Months Ended	
	Ended September 30, 2018	2017	September 30, 2018	2017
Revenues				
Premiums	\$1,071.7	\$1,004.4	\$3,172.4	\$2,957.0
Net investment income	66.4	62.6	198.0	181.3
Net realized and unrealized investment gains (losses):				
Net realized gains (losses) from sales and other	(0.2)	14.6	(0.1)	25.0
Net change in fair value of equity securities	23.6	—	6.7	—
Net other—than—temporary impairment losses on investments				
recognized in earnings	(0.4)	(1.3)	(2.8)	(4.5)
Total net realized and unrealized investment gains	23.0	13.3	3.8	20.5
Fees and other income	5.5	5.6	17.3	16.6
Total revenues	1,166.6	1,085.9	3,391.5	3,175.4
Losses and expenses				
Losses and loss adjustment expenses	676.4	656.5	2,018.5	1,938.2
Amortization of deferred acquisition costs	224.4	211.4	664.7	625.6
Interest expense	11.2	11.3	33.9	33.9
Other operating expenses	131.9	124.0	393.0	380.1
Total losses and expenses	1,043.9	1,003.2	3,110.1	2,977.8
Income from continuing operations before income taxes	122.7	82.7	281.4	197.6
Income tax expense:				
Current	16.2	16.8	27.1	8.6
Deferred	2.5	6.4	17.4	44.8
Total income tax expense	18.7	23.2	44.5	53.4
Income from continuing operations	\$104.0	\$59.5	\$236.9	\$144.2
Income (loss) from discontinued Chaucer business (net of	(3.6)	(47.2)	30.5	(8.3)

income tax benefit (expense) of \$1.1 and \$26.6 for the three months ended September 30, 2018 and 2017, respectively, and (\$6.6) and \$10.4 for the nine months

ended September 30, 2018 and 2017, respectively)

Net loss from discontinued life business (net of tax benefit

of \$0.8 for the three and nine months ended

September 30, 2017)	—	(1.2)	—	(1.2)
Net income	\$100.4	\$11.1	\$267.4	\$134.7
Earnings per common share:				
Basic:				
Income from continuing operations	\$2.45	\$1.40	\$5.57	\$3.39
Income (loss) from discontinued Chaucer business	(0.09)	(1.11)	0.72	(0.19)
Net loss from discontinued life business	—	(0.03)	—	(0.03)
Net income per share	\$2.36	\$0.26	\$6.29	\$3.17
Weighted average shares outstanding	42.5	42.4	42.5	42.5
Diluted:				
Income from continuing operations	\$2.41	\$1.38	\$5.50	\$3.36
Income (loss) from discontinued Chaucer business	(0.08)	(1.10)	0.71	(0.19)
Net loss from discontinued life business	—	(0.02)	—	(0.03)
Net income per share	\$2.33	\$0.26	\$6.21	\$3.14
Weighted average shares outstanding	43.1	42.9	43.1	42.9

The accompanying notes are an integral part of these interim consolidated financial statements.

Table of Contents

THE HANOVER INSURANCE GROUP, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

(In millions)	Three Months		Nine Months	
	Ended	Ended	Ended	Ended
	September 30,	September 30,	September 30,	September 30,
	2018	2017	2018	2017
Net income	\$100.4	\$11.1	\$267.4	\$134.7
Other comprehensive (loss) income, net of tax:				
Available-for-sale securities:				
Net (depreciation) appreciation during the period	(25.0)	1.7	(197.9)	40.0
Change in other-than-temporary impairment losses				
recognized in other comprehensive (loss) income	(0.2)	2.0	0.1	2.5
Total available-for-sale securities	(25.2)	3.7	(197.8)	42.5
Pension and postretirement benefits:				
Net change in net actuarial loss and prior service cost	1.9	2.3	0.5	7.0
Cumulative foreign currency translation adjustment:				
Amount recognized as cumulative foreign currency				
translation during the period	1.6	1.1	0.6	1.7
Total other comprehensive (loss) income, net of tax	(21.7)	7.1	(196.7)	51.2
Comprehensive income	\$78.7	\$18.2	\$70.7	\$185.9

The accompanying notes are an integral part of these interim consolidated financial statements.

Table of Contents

THE HANOVER INSURANCE GROUP, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS (UNAUDITED)

(In millions, except share data)	September 30, 2018	December 31, 2017
Assets		
Investments:		
Fixed maturities, at fair value (amortized cost of \$6,204.3 and \$5,657.1)	\$6,092.6	\$5,749.3
Equity securities, at fair value	574.8	576.2
Other investments	633.2	562.7
Total investments	7,300.6	6,888.2
Cash and cash equivalents	117.9	297.9
Accrued investment income	53.0	48.2
Premiums and accounts receivable, net	1,217.8	1,095.7
Reinsurance recoverable on paid and unpaid losses and unearned premiums	1,586.0	1,625.5
Deferred acquisition costs	456.9	430.0
Deferred income taxes	33.5	17.0
Goodwill	178.8	178.8
Other assets	330.0	333.7
Assets held-for-sale	4,247.2	4,466.6
Assets of discontinued life business	102.6	88.0
Total assets	\$15,624.3	\$15,469.6
Liabilities		
Loss and loss adjustment expense reserves	\$5,188.9	\$5,058.5
Unearned premiums	2,314.4	2,131.7
Expenses and taxes payable	538.6	620.7
Reinsurance premiums payable	46.4	51.5
Debt	777.6	786.9
Liabilities held-for-sale	3,660.4	3,707.2
Liabilities of discontinued life business	115.6	115.4
Total liabilities	\$12,641.9	12,471.9
Commitments and contingencies		
Shareholders' Equity		
Preferred stock, par value \$0.01 per share; 20.0 million shares authorized; none issued	—	—
Common stock, par value \$0.01 per share; 300.0 million shares authorized; 60.5 million shares issued	0.6	0.6
Additional paid-in capital	1,868.9	1,857.0
Accumulated other comprehensive income (loss)	(190.8)	107.6
Retained earnings	2,277.6	1,975.0
Treasury stock at cost (18.2 million and 18.0 million shares)	(973.9)	(942.5)
Total shareholders' equity	2,982.4	2,997.7
Total liabilities and shareholders' equity	\$15,624.3	\$15,469.6

The accompanying notes are an integral part of these interim consolidated financial statements.

4

Table of Contents

THE HANOVER INSURANCE GROUP, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (UNAUDITED)

(In millions)	Nine Months Ended September 30,	
	2018	2017
Preferred Stock		
Balance at beginning and end of period	\$—	\$—
Common Stock		
Balance at beginning and end of period	0.6	0.6
Additional Paid-in Capital		
Balance at beginning of period	1,857.0	1,846.7
Employee and director stock-based awards and other	11.9	9.7
Balance at end of period	1,868.9	1,856.4
Accumulated Other Comprehensive Income (Loss), net of tax		
Net Unrealized Appreciation (Depreciation) on Investments:		
Balance at beginning of period	205.4	186.0
Net appreciation (depreciation) on available-for-sale securities	(197.8)	42.5
Adoption of Accounting Standards Update 2016-01 and 2018-02	(81.6)	—
Balance at end of period	(74.0)	228.5
Defined Benefit Pension and Postretirement Plans:		
Balance at beginning of period	(79.5)	(102.5)
Net change in net actuarial loss and prior service cost	0.5	7.0
Adoption of Accounting Standards Update 2018-02	(16.2)	—
Balance at end of period	(95.2)	(95.5)
Cumulative Foreign Currency Translation Adjustment:		
Balance at beginning of period	(18.3)	(20.7)
Amount recognized as cumulative foreign currency translation during the period	0.6	1.7
Adoption of Accounting Standards Update 2018-02	(3.9)	—
Balance at end of period	(21.6)	(19.0)
Total accumulated other comprehensive income (loss)	(190.8)	114.0
Retained Earnings		
Balance at beginning of period	1,975.0	1,875.6
Cumulative effect of accounting change, net of taxes	104.3	—
Balance at beginning of period, as adjusted	2,079.3	1,875.6
Net income	267.4	134.7
Dividends to shareholders	(69.1)	(63.8)
Balance at end of period	2,277.6	1,946.5
Treasury Stock		
Balance at beginning of period	(942.5)	(928.2)
Shares purchased at cost	(44.2)	(37.2)
Net shares reissued at cost under employee stock-based compensation plans	12.8	19.9
Balance at end of period	(973.9)	(945.5)
Total shareholders' equity	\$2,982.4	\$2,972.0

The accompanying notes are an integral part of these interim consolidated financial statements.

5

Table of Contents

THE HANOVER INSURANCE GROUP, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

(In millions)	Nine Months Ended September 30,	
	2018	2017
Cash Flows From Operating Activities		
Net income	\$ 267.4	\$ 134.7
Adjustments to reconcile net income to net cash provided by operating activities:		
Net realized and unrealized investment gains	(3.8)	(21.2)
Net amortization and depreciation	21.0	23.0
Stock-based compensation expense	12.1	11.5
Amortization of defined benefit plan costs	7.3	10.5
Deferred income tax (benefit) expense	5.8	(3.1)
Net loss from repayment of debt	1.9	—
Change in deferred acquisition costs	(28.0)	(45.0)
Change in premiums receivable, net of reinsurance premiums payable	(134.2)	(96.5)
Change in loss, loss adjustment expense and unearned premium reserves	473.7	917.5
Change in reinsurance recoverable	(88.6)	(337.4)
Change in expenses and taxes payable	(49.7)	(53.9)
Other, net	(18.5)	(7.9)

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Net cash provided by operating activities	466.4	532.2
Cash Flows From Investing Activities		
Proceeds from disposals and maturities of fixed maturities	871.0	819.7
Proceeds from disposals of equity securities and other investments	77.3	138.2
Purchase of fixed maturities	(1,273.6)	(1,296.9)
Purchase of equity securities and other investments	(127.8)	(139.8)
Capital expenditures	(12.4)	(10.7)
Other investing activities	—	(9.7)
Net cash used in investing activities	(465.5)	(499.2)
Cash Flows From Financing Activities		
Proceeds from exercise of employee stock options	12.7	19.2
Change in cash collateral related to securities lending program	(8.3)	(7.3)
Dividends paid to shareholders	(68.9)	(63.8)
Repurchases of common stock	(44.2)	(37.2)
Repayment of debt	(11.6)	-
Other financing activities	(3.2)	(3.0)
Net cash used in financing activities	(123.5)	(92.1)
Effect of exchange rate changes on cash	(2.5)	3.7
Net change in cash and cash equivalents	(125.1)	(55.4)
Net change in cash related to discontinued operations	(54.9)	27.7
Cash and cash equivalents, beginning of period	297.9	147.3

Cash and cash equivalents, end of period	\$	117.9	\$	119.6
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The accompanying notes are an integral part of these interim consolidated financial statements.

Table of Contents

THE HANOVER INSURANCE GROUP, INC. AND SUBSIDIARIES

NOTES TO INTERIM CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

1. Basis of Presentation and Principles of Consolidation

The accompanying unaudited consolidated financial statements of The Hanover Insurance Group, Inc. and subsidiaries (“THG” or the “Company”) have been prepared in accordance with generally accepted accounting principles in the United States of America (“U.S. GAAP”) for interim financial information and with the requirements of Form 10-Q. Certain financial information that is provided in annual financial statements, but is not required in interim reports, has been omitted.

The interim consolidated financial statements of THG include the accounts of The Hanover Insurance Company (“Hanover Insurance”) and Citizens Insurance Company of America, THG’s principal U.S. – domiciled property and casualty companies, and certain other insurance and non-insurance subsidiaries. These legal entities conduct their operations through several business segments discussed in Note 9 – “Segment Information”. On September 13, 2018, the Company entered into a definitive agreement to sell Chaucer Holdings Limited (“Chaucer”), a specialist insurance underwriting group which operates through the Society and Corporation of Lloyd’s and the international insurance and non-insurance subsidiaries, which collectively constitute our Chaucer segment, to China Reinsurance (Group) Corporation (“China Re”). Accordingly, as of September 30, 2018 and for all prior periods, Chaucer’s results have been presented as discontinued operations and its assets and liabilities have been classified as held-for-sale in the consolidated financial statements (see Note 3 – “Discontinued Operations”). The interim consolidated financial statements also include discontinued operations of the Company’s accident and health and former life insurance businesses. All intercompany accounts and transactions have been eliminated.

The preparation of financial statements in conformity with U.S. GAAP requires the Company to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Actual results could differ from those estimates.

In the opinion of the Company’s management, the accompanying interim consolidated financial statements reflect all adjustments, consisting of normal recurring items, necessary for a fair presentation of the financial position and results of operations. The results of operations for the three and nine months ended September 30, 2018 are not necessarily indicative of the results to be expected for the full year. These financial statements should be read in conjunction with the Company’s Annual Report on Form 10-K filed with the Securities and Exchange Commission (“SEC”) on February 27, 2018.

2. New Accounting Pronouncements

Recently Implemented Standards

In February 2018, the Financial Accounting Standards Board (“FASB”) issued ASC Update No. 2018-02 (Topic 220) Income Statement – Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. This ASC update allows for a reclassification into retained earnings of the stranded tax effects in accumulated other comprehensive income (“AOCI”) resulting from the enactment of the Tax Cuts and Jobs Act (“TCJA”). Current guidance requires the effect of a change in tax laws or rates on deferred tax balances to be reported in income from continuing operations in the accounting period that includes the period of enactment, even if

the related income tax effects were originally charged or credited directly to AOCI. The amount of the reclassification would include the effect of the change in the U.S. federal corporate income tax rate on the gross deferred tax amounts at the date of the enactment of the TCJA related to items in AOCI. The updated guidance is effective for interim and annual periods beginning after December 15, 2018. Early adoption is permitted. The Company early adopted this guidance effective January 1, 2018 with a cumulative effect adjustment, which reclassified \$6.5 million of benefits from AOCI to retained earnings with no overall impact on the Company's financial position.

In March 2017, the FASB issued ASC Update No. 2017-07, (Topic 715) Compensation – Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. This guidance requires that an employer report in its income statement the service cost component of both net periodic pension and net periodic postretirement benefit cost in the same line item or items as other compensation costs arising from services rendered by pertinent employees during the period, and present in the income statement separately from the other components of benefit cost, if appropriate under the company's current presentation of its income statement. Additionally, the guidance allows only the service cost component to be eligible for capitalization when applicable. The updated guidance is effective for annual and interim periods beginning after December 15, 2017, and should be applied retrospectively for the presentation of the service cost component and other components of net periodic pension cost and net periodic postretirement benefit cost in the income statement, and prospectively for the capitalization of the service cost component of net periodic cost in assets. The Company implemented this guidance effective January 1, 2018. The effect of implementing this guidance was not material to the Company's financial position or results of operations as the Company does not have any service cost remaining related to its pension and postretirement plans.

Table of Contents

In January 2017, the FASB issued ASC Update No. 2017-01, (Topic 805) Business Combinations – Clarifying the Definition of a Business. The amendments in this update provide a more robust framework to use in determining when a set of assets and activities constitute a business. This guidance narrows the definition of a business by providing specific requirements that contribute to the creation of outputs that must be present to be considered a business. The guidance further clarifies the appropriate accounting when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets is that of an acquisition (disposition) of assets, not a business. This framework will reduce the number of transactions that an entity must further evaluate to determine whether transactions are business combinations or asset acquisitions. The updated guidance is effective for interim and annual periods beginning after December 15, 2017, and should be applied on a prospective basis. Early adoption is permitted only for transactions that have not been reported in financial statements that have been issued. The Company implemented this guidance effective January 1, 2018. The implementation of this guidance did not have an effect on the Company’s financial position or results of operations.

In November 2016, the FASB issued ASC Update No. 2016-18 (Topic 230) Statement of Cash Flows – Restricted Cash (a consensus of the FASB Emerging Issues Task Force). The amendments in this update require that restricted cash and restricted cash equivalents be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. Current GAAP does not include specific guidance on the cash flow classification and presentation of changes in restricted cash. The updated guidance is effective for interim and annual periods beginning after December 15, 2017 and is required to be applied using a retrospective transition method to each period presented. The Company implemented this guidance effective January 1, 2018. Implementing this guidance did not have an impact on the Company’s statement of cash flows, as restricted cash, if any, has already been included in total cash and cash equivalents.

In October 2016, the FASB issued ASC Update No. 2016-16, (Topic 740) Income Taxes – Intra-Entity Transfers of Assets Other Than Inventory. Under current GAAP, the tax effects of intra-entity transfers of assets (intercompany sales) are deferred until the assets are sold to an outside party or otherwise recovered through use. This ASC update eliminates this deferral of taxes for assets other than inventory and requires the recognition of taxes when the transfer occurs. The updated guidance is effective for interim and annual periods beginning after December 15, 2017, and should be applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings. Early adoption is permitted, but this election must be made in the first interim period of the adoption year. The Company implemented this guidance effective January 1, 2018. Implementation of this guidance did not have a net impact on the Company’s financial position or results of operations.

In August 2016, the FASB issued ASC Update No. 2016-15, (Topic 230) Classification of Certain Cash Receipts and Cash Payments. This ASC update provides specific guidance on the presentation of certain cash flow items where there is currently diversity in practice, including, but not limited to, debt prepayment or debt extinguishment costs, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, and distributions received from equity method investees. The updated guidance is effective for interim and annual periods beginning after December 15, 2017, and should be applied retrospectively unless impracticable. The Company implemented this guidance effective January 1, 2018. The adoption of ASC Update No. 2016-15 did not have a significant impact on the Company’s statement of cash flows.

In January 2016, the FASB issued ASC Update No. 2016-01, (Subtopic 825-10) Financial Instruments – Overall: Recognition and Measurement of Financial Assets and Financial Liabilities (“ASU No. 2016-01”). This ASC update requires unconsolidated equity investments to be measured at fair value with changes in the fair value recognized in net income, except for those accounted for under the equity method. This update eliminates the cost method for equity investments without readily determinable fair values, replacing it with other methods, including the use of Net Asset

Value (“NAV”). Additionally, when a public entity is required to measure fair value for disclosure purposes and holds financial instruments measured at amortized cost, the updated guidance requires these instruments to be measured using exit price. It also requires financial assets and financial liabilities to be presented separately in the notes to the financial statements, grouped by measurement category and form of financial asset. The updated guidance is effective for annual periods beginning after December 15, 2017. In February 2018, the FASB issued ASC Update No. 2018-03, (Subtopic 825-10) Technical Corrections and Improvements to Financial Instruments – Overall. This ASC update clarifies the transition method for equity investments without readily determinable fair values. Specifically, if an entity elects to measure these investments at cost, less impairment, adjusted for changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer (the “measurement alternative”), then transition is prospective. For all others, transition is modified retrospective, requiring a cumulative effect adjustment. This ASU is effective for annual periods beginning after December 15, 2017, and interim periods within those years beginning after June 15, 2018. Early adoption is permitted for interim periods beginning after December 15, 2017 as long as ASU No. 2016-01 has been adopted. The Company implemented this guidance effective January 1, 2018 concurrent with ASU No. 2016-01 for certain limited partnerships without readily determinable fair values. The implementation of these standards resulted in a benefit to retained earnings, through a cumulative effect adjustment, of \$97.8 million, including a reclassification of after-tax unrealized gains of \$95.2 million from AOCI and an adjustment of \$2.6 million of gains to record partnership investments at NAV.

Table of Contents

In May 2014, the FASB issued ASC Update No. 2014-09, (Topic 606) Revenue from Contracts with Customers. This ASC was issued to clarify the principles for recognizing revenue. Insurance contracts and financial instrument transactions are not within the scope of this updated guidance, and; therefore, only an insignificant amount of the Company's revenue is subject to this updated guidance. In August 2015, the FASB issued ASC Update No. 2015-14, (Topic 606) Revenue from Contracts with Customers, which deferred the effective date of ASC Update No. 2014-09 by one year. Accordingly, the updated guidance is effective for periods beginning after December 15, 2017. The Company implemented this guidance effective January 1, 2018. The effect of implementing this guidance was not material to the Company's financial position or results of operations.

Recently Issued Standards

In August 2018, the FASB issued ASC Update No. 2018-15, Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract ("ASC Update No. 2018-15"). This ASC update requires the capitalization of implementation costs incurred in a hosting arrangement that is a service contract consistent with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The guidance also requires an entity to expense the capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting agreement, and apply impairment guidance consistent with long-lived assets. ASC Update No. 2018-15 also provides specific guidelines related to the presentation of these capitalized implementation costs and related expenses in the financial statements. The updated guidance is effective for interim and annual periods beginning after December 15, 2019, and should be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. Early adoption is permitted, including interim periods. The Company does not expect the adoption of ASC Update No. 2018-15 to have a material impact on its financial position or results of operations.

In August 2018, the FASB issued ASC Update No. 2018-14 (Topic 715-20) Compensation – Retirement Benefits – Defined Benefit Plans – General – Disclosure Framework – Changes to the Disclosure Requirements for the Defined Benefit Plans. This ASC update modifies disclosures related to defined benefit pension or other postretirement plans. This ASC update removes the disclosure of amounts in accumulated other comprehensive income expected to be recognized over the next fiscal year and the effects of a one percentage point change of health care cost trends on net periodic benefit costs and postretirement benefit obligations and clarifies the specific requirements of disclosures related to the project benefit obligation and accumulated benefit obligation. This ASC Update also adds disclosures related to weighted average crediting rates for cash balance plans and requires disclosure of an explanation of any significant gains and losses related to changes in benefit obligations for the period. The amendments in this ASC update are effective for fiscal years ending after December 15, 2020, and should be applied on a retrospective basis to all periods presented. Early adoption is permitted. Implementing this guidance is not expected to have an impact on the Company's financial position or results of operations as the update is disclosure related.

In August 2018, the FASB issued ASC Update No. 2018-13 (Topic 820) Fair Value Measurement, Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement. The update removes the requirement for disclosure of the following: 1) the amount and reasons for transfers between level 1 and level 2 of the fair value hierarchy, 2) the policy for timing of transfers between levels, and 3) the valuation processes for level 3 fair value measurements. This update also added a requirement to disclose the changes in unrealized gains and losses for the period included in other comprehensive income for recurring level 3 fair value measurements held at the end of the reporting period and the range and weighted average of significant unobservable inputs used to develop level 3 fair value measurements, in addition to other fair value disclosure modifications. The updated guidance is effective for interim and annual periods beginning after December 15, 2019, and should be applied prospectively for certain of the

disclosure requirements and retrospectively to all periods presented upon the effective date for other disclosure requirements. An entity is permitted to early adopt any removed or modified disclosures upon issuance of the update and delay adoption of additional disclosures until periods beginning after December 15, 2019, the effective date of the standard. Implementing this guidance is not expected to have an impact on the Company's financial position on results of operations as the update is disclosure related.

In March 2017, the FASB issued ASC Update No. 2017-08, (Subtopic 310-20) Receivables – Nonrefundable Fees and Other Costs: Premium Amortization on Purchased Callable Debt Securities. This guidance shortens the amortization period of premiums on certain purchased callable debt securities to the earliest call date. The updated guidance is effective for annual and interim periods beginning after December 15, 2018, and should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Early adoption is permitted, including adoption in an interim period. The Company does not expect the adoption of ASC Update No. 2017-08 to have a material impact on its financial position or results of operations.

Table of Contents

In January 2017, the FASB issued ASC Update No. 2017-04, (Topic 350) Intangibles – Goodwill and Other: Simplifying the Test for Goodwill Impairment. This guidance eliminates step 2 from the goodwill impairment test. Instead, an entity should perform its goodwill impairment test by comparing the fair value of the reporting unit with its carrying amount, including any applicable income tax effects, and recognize an impairment for the amount by which the carrying amount exceeds the reporting unit's fair value. However, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The updated guidance is effective for annual or interim goodwill impairment tests performed in fiscal years 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 does not expect the adoption of ASC Update No. 2017-04 to have a material impact on its financial position or results of operations.

In June 2016, the FASB issued ASC Update No. 2016-13, (Topic 326) Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments. This ASC update introduces new guidance for the accounting for credit losses on financial instruments within its scope. A new model, referred to as the current expected credit losses model, requires an entity to determine credit-related impairment losses for financial instruments held at amortized cost and to estimate these expected credit losses over the life of an exposure (or pool of exposures). The estimate of expected credit losses should consider both historical and current information, reasonable and supportable forecasts, as well as estimates of prepayments. The estimated credit losses and subsequent adjustment to such loss estimates, will be recorded through an allowance account which is deducted from the amortized cost of the financial instrument, with the offset recorded in current earnings. ASC No. 2016-13 also modifies the impairment model for available-for-sale debt securities. The new model will require an estimate of expected credit losses only when the fair value is below the amortized cost of the asset, thus the length of time the fair value of an available-for-sale debt security has been below the amortized cost will no longer affect the determination of whether a credit loss exists. In addition, credit losses on available-for-sale debt securities will be limited to the difference between the security's amortized cost basis and its fair value. The updated guidance is effective for interim and annual periods beginning after December 15, 2019. Early adoption is permitted for periods beginning after December 15, 2018. The Company is evaluating the impact of the adoption of ASC Update No. 2016-13 on its financial position and results of operations.

In February 2016, the FASB issued ASC Update No. 2016-02, (Topic 842) Leases. This ASC update requires a lessee to recognize a right-of-use asset, which represents the lessee's right to use a specified asset for the lease term, and a corresponding lease liability, which represents a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis, for all leases that extend beyond 12 months. For finance or capital leases, interest on the lease liability will be recognized separately from amortization of the right-of-use asset in the statements of income and comprehensive income. In addition, the repayment of the principal portion of the lease liability will be classified as a financing activity while the interest component will be included in the operating section of the statement of cash flows. For operating leases, the asset and liability will be amortized as a single lease cost, such that the cost of the lease is allocated over the lease term, on a generally straight-line basis, with all cash flows included within operating activities in the statement of cash flows. ASC Update No. 2016-02 requires that implementation of this guidance be through a modified retrospective transition approach. In July 2018, the FASB issued ASC Update No. 2018-11, (Topic 842) Leases Targeted Improvements, which provides entities with an additional transition method to adopt ASC Update No. 2016-02. Under this optional transition method, an entity can initially apply the new guidance at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The updated guidance in ASC Update No. 2016-02 is effective for interim and annual periods beginning after December 15, 2018 and the Company expects to adopt the guidance using the optional transition method provided in ASC Update No. 2018-11. Additionally, the Company plans to elect the practical expedient package available in ASC Update No. 2017-02 upon adoption. It is expected that total assets and total liabilities will each increase by approximately \$40 million to \$50 million upon implementation, and that the adoption of this ASC update

is not expected to be material to the Company's results of operations.

3. Discontinued Chaucer Business

On September 13, 2018, the Company entered into a definitive agreement to sell Chaucer to China Re, for cash consideration of up to \$865 million, consisting of initial consideration of \$820 million, payable at closing, and contingent consideration of \$45 million to be held in escrow. This contingent consideration may be adjusted downward if catastrophe losses incurred in 2018 are above a certain threshold. The Company anticipates that this transaction will result in a net gain. Several factors will affect the ultimate amount of the net gain recognized at the completion of the transaction, including the future earnings of the Chaucer business, the level of catastrophe losses incurred during 2018, the value of investment securities at closing and various tax attributes. The transaction is anticipated to close late this year or in the first quarter of next year, subject to regulatory approvals and other customary closing conditions. THG has agreed to indemnify China Re for certain litigation, regulatory matters and other liabilities related to pre-closing activities of the business being sold.

Table of Contents

The following table summarizes the results of Chaucer's operations:

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenues				
Net premiums earned	\$212.4	\$222.5	\$648.2	\$632.4
Net investment income	12.8	13.4	41.7	37.1
Other income	1.9	2.7	5.4	5.0
	227.1	238.6	695.3	674.5
Losses and operating expenses				
Losses and LAE	137.0	221.7	364.3	431.7
Amortization of deferred acquisition costs	60.1	63.7	196.7	180.5
Other expenses	26.2	27.0	85.7	81.5
	223.3	312.4	646.7	693.7
Income (loss) from discontinued Chaucer business before income taxes and other items (previously presented as Chaucer's operating income (loss))				
	3.8	(73.8)	48.6	(19.2)
Other items:				
Interest expense	(1.5)	(0.8)	(2.8)	(2.4)
Net realized and unrealized investment gains (losses)	0.1	0.1	(0.4)	0.7
Expenses related to the anticipated sale of Chaucer	(6.9)	-	(8.7)	-
Other income (expense)	(0.2)	0.7	0.4	2.2
Income (loss) from discontinued Chaucer business before income taxes				
	\$(4.7)	\$(73.8)	\$37.1	\$(18.7)
Income tax benefit (expense)	1.1	26.6	(6.6)	10.4
Income (loss) from discontinued Chaucer business, net of income taxes				
	\$(3.6)	\$(47.2)	\$30.5	\$(8.3)

The following table details the carrying amounts of major assets and liabilities reflected in the Consolidated Balance Sheets under the caption "Assets held-for-sale" and "Liabilities held-for-sale", respectively.

(in millions)	September 30, 2018	December 31, 2017
Assets:		
Investments	\$ 1,923.4	\$ 2,153.5
Cash and cash equivalents	133.4	78.5
Accrued investment income	12.7	14.5
Premiums and accounts receivable, net	558.3	471.9

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Deferred acquisition costs	121.4	120.2
Reinsurance recoverable on paid and unpaid losses and unearned premiums	1,278.8	1,431.5
Goodwill	13.0	13.8
Other assets	206.2	182.7
Total assets held-for-sale	\$ 4,247.2	\$ 4,466.6
Liabilities:		
Loss and loss adjustment expense reserves	2,472.5	2,686.5
Unearned premiums	706.7	631.9
Reinsurance premium payable	375.7	293.3
Other liabilities	105.5	95.5
Total liabilities held-for-sale	\$ 3,660.4	\$ 3,707.2

11

Table of Contents

The following table details the cash flows associated with the discontinued Chaucer business:

(in millions)	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Net cash provided by operating activities	\$60.2	\$39.9	\$46.2	\$68.9
Net cash (used in) provided by investing activities	\$(31.7)	\$(97.2)	\$64.3	\$(104.4)

4. Income Taxes

Income tax expense for the nine months ended September 30, 2018 and 2017 has been computed using estimated annual effective tax rates. These rates reflect the change in the U.S. statutory tax rate from 35% to 21%, effective January 1, 2018 and recomputed income to exclude discontinued Chaucer business. These rates are revised, if necessary, at the end of each successive interim period to reflect current estimates of the annual effective tax rates.

The tax provision was comprised of U.S. federal income tax expense of \$44.5 million and \$53.4 million for the nine months ended September 30, 2018 and 2017, respectively. The tax provision recorded in discontinued operations related to discontinued Chaucer business for the nine months ended September 30, 2018 was comprised of a \$0.2 million U.S. federal income tax benefit and a \$6.8 million foreign income tax expense. For the nine months ended September 30, 2017, the tax provision recorded in discontinued operations was comprised of a \$6.1 million U.S. federal income tax expense and a \$16.5 million foreign income tax benefit.

The Company or its subsidiaries files income tax returns in the U.S. federal jurisdiction and various state jurisdictions, as well as foreign jurisdictions. The Company and its subsidiaries are subject to U.S. federal and state income tax examinations and foreign examinations for years after 2014.

5. Investments

A. Fixed maturities

The amortized cost and fair value of available-for-sale fixed maturity securities were as follows:

(in millions)	September 30, 2018			Fair Value	OTTI Unrealized Losses
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses		
U.S. Treasury and government agencies	\$415.8	\$ 1.2	\$ 14.8	\$402.2	\$ —
Foreign government	7.3	0.1	—	7.4	—
Municipal	888.2	13.7	15.6	886.3	—
Corporate	3,429.6	30.6	86.4	3,373.8	6.4

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Residential mortgage-backed	731.8	1.0	25.7	707.1	—
Commercial mortgage-backed	645.1	0.6	15.2	630.5	—
Asset-backed	86.5	—	1.2	85.3	—
Fixed maturities, excluding held-for-sale (Chaucer)	6,204.3	47.2	158.9	6,092.6	6.4
Fixed maturities, held-for-sale	1,841.7	6.7	41.5	1,806.9	0.4
Total fixed maturities	\$8,046.0	\$ 53.9	\$ 200.4	\$7,899.5	\$ 6.8

(in millions)	December 31, 2017				
	Amortized Cost	Gross Unrealized		Fair Value	OTTI Unrealized Losses
		Gains	Losses		
U.S. Treasury and government agencies	\$322.1	\$ 3.4	\$ 3.2	\$322.3	\$ —
Foreign government	8.2	0.3	—	8.5	—
Municipal	910.1	29.7	5.8	934.0	—
Corporate	3,134.2	84.1	21.7	3,196.6	6.5
Residential mortgage-backed	632.3	5.8	4.9	633.2	—
Commercial mortgage-backed	590.3	7.2	2.5	595.0	—
Asset-backed	59.9	0.1	0.3	59.7	—
Fixed maturities, excluding held-for-sale (Chaucer)	5,657.1	130.6	38.4	5,749.3	6.5
Fixed maturities, held-for-sale	2,031.7	14.6	15.9	2,030.4	0.4
Total fixed maturities	\$7,688.8	\$ 145.2	\$ 54.3	\$7,779.7	\$ 6.9

12

Table of Contents

Other-than-temporary impairments (“OTTI”) unrealized losses in the tables above represent OTTI recognized in accumulated other comprehensive income (“AOCI”). This amount excludes net unrealized gains on impaired securities relating to changes in the value of such securities subsequent to the impairment measurement date of \$9.1 million and \$11.0 million as of September 30, 2018 and December 31, 2017, respectively.

The Company deposits funds with various state and governmental authorities. For a discussion of the Company’s deposits with state and governmental authorities, see also Note 3 – “Investments” of the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2017.

The amortized cost and fair value by maturity periods for fixed maturities are shown below. Actual maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties, or the Company may have the right to put or sell the obligations back to the issuers.

(in millions)	September 30, 2018	
	Amortized Cost	Fair Value
Due in one year or less	\$ 184.8	\$ 186.5
Due after one year through five years	1,797.6	1,798.9
Due after five years through ten years	2,464.5	2,389.7
Due after ten years	294.0	294.6
	4,740.9	4,669.7
Mortgage-backed and asset-backed securities	1,463.4	1,422.9
Fixed maturities, excluding held-for-sale (Chaucer)	6,204.3	6,092.6
Fixed maturities, held-for-sale	1,841.7	1,806.9
Total fixed maturities	\$8,046.0	\$7,899.5

B. Fixed maturity securities in an unrealized loss position

The following tables provide information about the Company’s available-for-sale fixed maturity securities that were in an unrealized loss position at September 30, 2018 and December 31, 2017 including the length of time the securities have been in an unrealized loss position:

(in millions)	September 30, 2018					
	12 months or less		Greater than 12 months		Total	
Investment grade:	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value
U.S. Treasury and government agencies	\$6.9	\$243.2	\$7.9	\$124.1	\$14.8	\$367.3

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Foreign governments	—	2.8	—	—	—	2.8
Municipal	5.8	251.8	9.8	161.8	15.6	413.6
Corporate	36.0	1,589.5	41.6	633.8	77.6	2,223.3
Residential mortgage-backed	10.4	419.0	15.3	241.6	25.7	660.6
Commercial mortgage-backed	10.5	476.3	4.7	99.6	15.2	575.9
Asset-backed	1.1	69.7	0.1	5.6	1.2	75.3
Total investment grade	70.7	3,052.3	79.4	1,266.5	150.1	4,318.8
Below investment grade:						
Municipal	—	0.9	—	—	—	0.9
Corporate	2.5	87.8	6.3	42.4	8.8	130.2
Total below investment grade	2.5	88.7	6.3	42.4	8.8	131.1
Fixed maturities, excluding held-for-sale (Chaucer)	73.2	3,141.0	85.7	1,308.9	158.9	4,449.9
Fixed maturities, held-for-sale	15.7	974.4	25.8	612.4	41.5	1,586.8
Total fixed maturities	\$88.9	\$4,115.4	\$111.5	\$1,921.3	\$200.4	\$6,036.7

Table of Contents

(in millions)	December 31, 2017					
	12 months or less		Greater than 12 months		Total	
	Gross		Gross		Gross	
	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value
Investment grade:						
U.S. Treasury and government agencies	\$1.1	\$146.3	\$2.1	\$62.3	\$3.2	\$208.6
Foreign governments	—	0.1	—	0.6	—	0.7
Municipal	1.7	183.8	4.1	101.2	5.8	285.0
Corporate	3.0	386.2	10.8	395.9	13.8	782.1
Residential mortgage-backed	1.4	196.3	3.5	159.0	4.9	355.3
Commercial mortgage-backed	0.9	139.2	1.6	61.9	2.5	201.1
Asset-backed	0.3	34.6	—	2.4	0.3	37.0
Total investment grade	8.4	1,086.5	22.1	783.3	30.5	1,869.8
Below investment grade:						
Corporate	1.5	48.7	6.4	39.0	7.9	87.7
Fixed maturities, excluding held-for-sale (Chaucer)	9.9	1,135.2	28.5	822.3	38.4	1,957.5
Fixed maturities, held-for-sale	5.7	803.3	10.2	389.6	15.9	1,192.9
Total fixed maturities	\$15.6	\$1,938.5	\$38.7	\$1,211.9	\$54.3	\$3,150.4

The Company views gross unrealized losses on fixed maturities as being temporary since it is its assessment that these securities will recover in the near term, allowing the Company to realize the anticipated long-term economic value. The Company employs a systematic methodology to evaluate declines in fair value below amortized cost for fixed maturity securities. In determining OTTI, the Company evaluates several factors and circumstances, including the issuer's overall financial condition; the issuer's credit and financial strength ratings; the issuer's financial performance, including earnings trends and asset quality; any specific events which may influence the operations of the issuer; the general outlook for market conditions in the industry or geographic region in which the issuer operates; and the length of time and the degree to which the fair value of an issuer's securities remains below the Company's amortized cost. The Company also considers any factors that might raise doubt about the issuer's ability to make contractual payments as they come due and whether the Company expects to recover the entire amortized cost basis of the security.

C. Proceeds from sales

The proceeds from sales of available-for-sale securities and gross realized gains and gross realized losses on those sales were as follows:

(in millions)	Three Months Ended September 30,					
	2018			2017		
	Proceeds Sales	Gross Gains	Gross Losses	Proceeds Sales	Gross Gains	Gross Losses
Fixed maturities, excluding held-for-sale (Chaucer)	\$83.8	\$ 0.8	\$ 1.5	\$47.0	\$ 2.4	\$ 0.3
Fixed maturities, held-for-sale	21.4	0.2	0.1	45.6	0.6	0.2
Total fixed maturities	\$105.2	\$ 1.0	\$ 1.6	\$92.6	\$ 3.0	\$ 0.5

(in millions)	Nine Months Ended September 30,					
	2018			2017		
	Proceeds	Gross	Gross	Proceeds	Gross	Gross
	Sales	Gains	Losses	Sales	Gains	Losses
Fixed maturities, excluding held-for-sale (Chaucer)	\$225.1	\$ 2.0	\$ 5.3	\$176.9	\$ 6.4	\$ 1.7
Fixed maturities, held-for-sale	172.5	1.3	1.1	145.8	1.8	0.2
Total fixed maturities	\$397.6	\$ 3.3	\$ 6.4	\$322.7	\$ 8.2	\$ 1.9

D. Other-than-temporary impairments

For the three months ended September 30, 2018, total OTTI from continuing operations was \$0.7 million, which consisted entirely of fixed maturities. Of this amount, \$0.4 million was recognized in earnings and the remaining \$0.3 million was recorded as unrealized losses in AOCI. For the nine months ended September 30, 2018, total OTTI from continuing operations was \$3.4 million, consisting primarily of fixed maturities and other invested assets. Of this amount, \$2.8 million was recognized in earnings and the remaining \$0.6 million was recorded as unrealized losses in AOCI.

Table of Contents

For the three months ended September 30, 2017, total OTTI from continuing operations was \$1.5 million, consisting primarily of fixed maturities. Of this amount, \$1.3 million was recognized in earnings and the remaining \$0.2 million was recorded as unrealized losses in AOCI. For the nine months ended September 30, 2017, total OTTI from continuing operations was \$4.9 million, consisting of equity securities, fixed maturities and other invested assets. Of this amount, \$4.5 million was recognized in earnings and the remaining \$0.4 million was recorded as unrealized losses in AOCI.

The methodology and significant inputs used to measure the amount of credit losses on fixed maturities in 2018 and 2017 were as follows:

Corporate bonds – the Company utilized a financial model that derives expected cash flows based on probability-of-default factors by credit rating and asset duration and loss-given-default factors based on security type. These factors are based on historical data provided by an independent third-party rating agency. In addition, other market data relevant to the realizability of contractual cash flows may be considered.

The following table provides rollforwards of the cumulative amounts related to the credit loss portion of the OTTI losses on fixed maturity securities from continuing operations for which the non-credit portion of the loss is included in other comprehensive income.

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Credit losses at beginning of period, excluding held-for-sale (Chaucer)	\$3.7	\$9.2	\$3.6	\$9.6
Credit losses for which an OTTI was not previously recognized	0.2	0.2	1.0	0.4
Additional credit losses on securities for which an OTTI was				
previously recognized	—	—	0.1	0.1
Reductions for securities sold, matured or called	—	(1.9)	(0.8)	(2.6)
Reductions for securities reclassified as intended to sell	—	(0.4)	—	(0.4)
Credit losses at end of period, excluding held-for-sale (Chaucer)	\$3.9	\$7.1	\$3.9	\$7.1

For the three and nine months ended September 30, 2018, total OTTI from discontinued operations of Chaucer was \$0.2 million and \$0.4 million, respectively. For both the three and nine months ended September 30, 2017, total OTTI from discontinued operations of Chaucer was \$0.1 million.

E. Equity securities

Equity securities are carried at fair value. Effective January 1, 2018, all increases or decreases in fair value on equity securities are reported in net realized and unrealized investment gains (losses) on the Consolidated Statements of Income. Previously, equity securities were categorized as available-for-sale and unrealized gains and losses were reported in AOCI, a separate component of shareholders' equity. As of December 31, 2017, we held equity securities

with a fair value of \$576.2 million and a cost of \$433.7 million. On January 1, 2018, the Company recorded a cumulative effect adjustment which included the reclassification of net unrealized gains on equities of \$142.5 million, pre-tax, from AOCI to retained earnings.

The following table provides pre-tax realized and unrealized gains (losses) on equity securities recognized in net income from continuing operations during the three and nine months ended September 30, 2018:

(in millions)	Three Months Ended	Nine Months Ended
Net gains recognized during the period	\$ 23.6	\$ 6.7
Less: net losses recognized on equity securities sold during the period	(0.2)	(1.0)
Net unrealized gains recognized during the period on equity securities still held	\$ 23.8	\$ 7.7

During the three and nine months ended September 30, 2017, there were changes in net unrealized gains on equity securities of \$7.9 million and \$37.2 million, respectively, recognized in AOCI and net realized gains from sales of equity securities of \$11.8 million and \$17.6 million, respectively, recognized in earnings. Proceeds from the sale of equities for the three and nine months ended September 30, 2017 were \$68.2 million and \$114.5 million, respectively.

Table of Contents

6. Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability, i.e., exit price, in an orderly transaction between market participants. The Company emphasizes the use of observable market data whenever available in determining fair value. Fair values presented for certain financial instruments are estimates which, in many cases, may differ significantly from the amounts that could be realized upon immediate liquidation. A hierarchy of the three broad levels of fair value are as follows, with the highest priority given to Level 1 as these are the most observable, and the lowest priority given to Level 3:

Level 1 – Unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 – Quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data, including model-derived valuations.

Level 3 – Unobservable inputs that are supported by little or no market activity.

When more than one level of input is used to determine fair value, the financial instrument is classified as Level 2 or 3 according to the lowest level input that has a significant impact on the fair value measurement.

The following methods and assumptions were used to estimate the fair value of each class of financial instruments and have not changed since last year.

Fixed Maturities

Level 1 securities generally include U.S. Treasury issues and other securities that are highly liquid and for which quoted market prices are available. Level 2 securities are valued using pricing for similar securities and pricing models that incorporate observable inputs including, but not limited to yield curves and issuer spreads. Level 3 securities include issues for which little observable data can be obtained, primarily due to the illiquid nature of the securities, and for which significant inputs used to determine fair value are based on the Company's own assumptions.

The Company utilizes a third party pricing service for the valuation of the majority of its fixed maturity securities and receives one quote per security. When quoted market prices in an active market are available, they are provided by the pricing service as the fair value and such values are classified as Level 1. Since fixed maturities other than U.S. Treasury securities generally do not trade on a daily basis, the pricing service prepares estimates of fair value for those securities using pricing techniques based on a market approach. Inputs into the fair value pricing common to all asset classes include: benchmark U.S. Treasury security yield curves; reported trades of identical or similar fixed maturity securities; broker/dealer quotes of identical or similar fixed maturity securities and structural characteristics such as maturity date, coupon, mandatory principal payment dates, frequency of interest and principal payments, and optional redemption features. Inputs into the fair value applications that are unique by asset class include, but are not limited to:

- U.S. government agencies – determination of direct versus indirect government support and whether any contingencies exist with respect to the timely payment of principal and interest.
- Foreign government – estimates of appropriate market spread versus underlying related sovereign treasury curve(s) dependent on liquidity and direct or contingent support.
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Municipals – overall credit quality, including assessments of the level and variability of: sources of payment such as income, sales or property taxes, levies or user fees; credit support such as insurance; state or local economic and political base; natural resource availability; and susceptibility to natural or man-made catastrophic events such as hurricanes, earthquakes or acts of terrorism.

• Corporate fixed maturities – overall credit quality, including assessments of the level and variability of: economic sensitivity; liquidity; corporate financial policies; management quality; regulatory environment; competitive position; ownership; restrictive covenants; and security or collateral.

• Residential mortgage-backed securities – estimates of prepayment speeds based upon: historical prepayment rate trends; underlying collateral interest rates; geographic concentration; vintage year; borrower credit quality characteristics; interest rate and yield curve forecasts; government or monetary authority support programs; tax policies; delinquency/default trends; and, in the case of non-agency collateralized mortgage obligations, severity of loss upon default and length of time to recover proceeds following default.

• Commercial mortgage-backed securities – overall credit quality, including assessments of the value and supply/demand characteristics of: collateral type such as office, retail, residential, lodging, or other; geographic concentration by region, state, metropolitan statistical area and locale; vintage year; historical collateral performance including defeasance, delinquency, default and special servicer trends; and capital structure support features.

Table of Contents

•Asset-backed securities – overall credit quality, including assessments of the underlying collateral type such as credit card receivables, auto loan receivables and equipment lease receivables; geographic diversification; vintage year; historical collateral performance including delinquency, default and casualty trends; economic conditions influencing use rates and resale values; and contract structural support features.

Generally, all prices provided by the pricing service, except actively traded securities with quoted market prices, are reported as Level 2.

The Company holds privately placed fixed maturity securities and certain other fixed maturity securities that do not have an active market and for which the pricing service cannot provide fair values. The Company determines fair values for these securities using either matrix pricing utilizing the market approach or broker quotes. The Company will use observable market data as inputs into the fair value techniques, as discussed in the determination of Level 2 fair values, to the extent it is available, but is also required to use a certain amount of unobservable judgment due to the illiquid nature of the securities involved. Unobservable judgment reflected in the Company's matrix model accounts for estimates of additional spread required by market participants for factors such as issue size, structural complexity, high bond coupon or other unique features. These matrix-priced securities are reported as Level 2 or Level 3, depending on the significance of the impact of unobservable judgment on the security's value. Additionally, the Company may obtain non-binding broker quotes which are reported as Level 3.

Equity Securities

Level 1 consists of publicly traded securities, including exchange traded funds, valued at quoted market prices. Level 2 includes securities that are valued using pricing for similar securities and pricing models that incorporate observable inputs. Level 3 consists of common or preferred stock of private companies for which observable inputs are not available.

The Company utilizes a third party pricing service for the valuation of the majority of its equity securities and receives one quote for each equity security. When quoted market prices in an active market are available, they are provided by the pricing service as the fair value and such values are classified as Level 1. The Company holds certain equity securities that have been issued by privately-held entities that do not have an active market and for which the pricing service cannot provide fair values. Generally, the Company estimates fair value for these securities based on the issuer's book value and market multiples and reports them as Level 3. Additionally, the Company may obtain non-binding broker quotes which are reported as Level 3.

Other Investments

Other investments primarily include mortgage participations, limited partnerships not subject to equity method of accounting, and overseas trust funds required in connection with the Company's Lloyd's business (currently held-for-sale). The fair values of limited partnerships not subject to the equity method of accounting are based on the net asset value provided by the general partner adjusted for recent financial information and are excluded from the fair value hierarchy. Fair values of overseas trust funds are provided by the investment manager based on quoted prices for similar instruments in active markets and are reported as Level 2.

Table of Contents

The estimated fair value of the financial instruments, including our Chaucer business held-for-sale, were as follows:

(in millions)	September 30, 2018		December 31, 2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Financial Instruments carried at ⁽¹⁾ :				
Fair Value through AOCI:				
Fixed maturities	\$7,899.5	\$7,899.5	\$7,779.7	\$7,779.7
Equity securities	—	—	576.5	576.5
Other investments	—	—	3.6	3.6
Fair Value through Net Income:				
Equity securities	575.0	575.0	—	—
Other investments	285.8	285.8	122.8	122.8
Amortized Cost/Cost:				
Other investments	403.1	403.7	512.8	518.3
Cash and cash equivalents	251.3	251.3	376.4	376.4
Total financial instruments, including held-for-sale	9,414.7	9,415.3	9,371.8	9,377.3
Financial instruments, held-for-sale (Chaucer)	2,056.8	2,056.8	2,232.0	2,232.0
Total financial instruments, excluding held-for-sale	\$7,357.9	\$7,358.5	\$7,139.8	\$7,145.3
Financial Liabilities carried at:				
Amortized Cost:				
Debt	\$777.6	\$823.9	\$786.9	\$865.7

(1) Due to the adoption of ASU No. 2016-01, certain classifications are not comparable to the prior year. See Note 2 – “New Accounting Pronouncements”.

The Company has processes designed to ensure that the values received from its third party pricing service are accurately recorded, that the data inputs and valuation approaches and techniques utilized are appropriate and consistently applied, and that the assumptions are reasonable and consistent with the objective of determining fair value. The Company performs a review of the fair value hierarchy classifications and of prices received from its pricing service on a quarterly basis. The Company reviews the pricing services’ policies describing its methodology, processes, practices and inputs, including various financial models used to value securities. Also, the Company reviews the portfolio pricing, including a process for which securities with changes in prices that exceed a defined threshold are verified to independent sources, if available. If upon review, the Company is not satisfied with the validity of a given price, a pricing challenge would be submitted to the pricing service along with supporting documentation for its review. The Company does not adjust quotes or prices obtained from the pricing service unless the pricing service agrees with the Company’s challenge. During 2018 and 2017, the Company did not adjust any prices received from its pricing service.

Changes in the observability of valuation inputs may result in a reclassification of certain financial assets or liabilities within the fair value hierarchy. Reclassifications between levels of the fair value hierarchy are reported as of the beginning of the period in which the reclassification occurs. As previously discussed, the Company utilizes a third

party pricing service for the valuation of the majority of its fixed maturities and equity securities. The pricing service has indicated that it will only produce an estimate of fair value if there is objectively verifiable information to produce a valuation. If the pricing service discontinues pricing an investment, the Company will use observable market data to the extent it is available, but may also be required to make assumptions for market based inputs that are unavailable due to market conditions.

Table of Contents

The following tables provide, for each hierarchy level, the Company's assets that were measured at fair value on a recurring basis, including those of our Chaucer business which is held-for-sale.

(in millions)	September 30, 2018			
	Total	Level 1	Level 2	Level 3
Fixed maturities:				
U.S. Treasury and government agencies	\$604.7	\$235.5	\$369.2	\$ —
Foreign government	207.2	20.4	186.8	—
Municipal	1,026.9	—	1,003.4	23.5
Corporate	4,319.8	—	4,319.1	0.7
Residential mortgage-backed, U.S. agency backed	1,020.9	—	1,020.9	—
Residential mortgage-backed, non-agency	2.8	—	2.8	—
Commercial mortgage-backed	631.9	—	618.9	13.0
Asset-backed	85.3	—	85.3	—
Total fixed maturities	7,899.5	255.9	7,606.4	37.2
Equity securities	575.0	573.9	—	1.1
Other investments	119.9	—	116.3	3.6
Total investment assets at fair value, including held-for-sale	8,594.4	829.8	7,722.7	41.9
Investment assets, held-for-sale (Chaucer)	1,923.4	103.4	1,817.8	2.2
Total investment assets, excluding held-for-sale	\$6,671.0	\$726.4	\$5,904.9	\$ 39.7

(in millions)	December 31, 2017			
	Total	Level 1	Level 2	Level 3
Fixed maturities:				
U.S. Treasury and government agencies	\$511.4	\$227.6	\$283.8	\$ —
Foreign government	242.7	50.1	192.6	—
Municipal	1,076.0	—	1,049.2	26.8
Corporate	4,307.5	—	4,306.6	0.9
Residential mortgage-backed, U.S. agency backed	956.4	—	956.4	—
Residential mortgage-backed, non-agency	29.6	—	29.6	—
Commercial mortgage-backed	596.4	—	582.2	14.2
Asset-backed	59.7	—	59.7	—
Total fixed maturities	7,779.7	277.7	7,460.1	41.9
Equity securities	568.1	567.0	—	1.1
Other investments	126.4	—	122.8	3.6
Total investment assets at fair value, including held-for-sale	8,474.2	844.7	7,582.9	46.6
Investment assets, held-for-sale (Chaucer)	2,153.5	138.0	2,013.3	2.2
Total investment assets, excluding held-for-sale	\$6,320.7	\$706.7	\$5,569.6	\$ 44.4

Limited partnerships measured at fair value using NAV based on an ownership interest in partners' capital have not been included in the tables below. At September 30, 2018 and December 31, 2017, the fair values of these investments

were \$165.9 million and \$149.4 million, respectively, which are less than 2% of total investment assets, including assets held-for-sale.

Table of Contents

The following tables provide, for each hierarchy level, the Company's estimated fair values of financial instruments that were not carried at fair value, including assets held-for-sale:

(in millions)	September 30, 2018			
	Total	Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	\$251.3	\$251.3	\$—	\$—
Other investments	403.7	—	8.7	395.0
Total financial instruments, including held-for-sale	655.0	251.3	8.7	395.0
Financial instruments, held-for-sale (Chaucer)	133.4	133.4	—	—
Total financial instruments, excluding held-for-sale	\$521.6	\$117.9	\$8.7	\$395.0
Liabilities:				
Debt	\$823.9	\$—	\$823.9	\$—

(in millions)	December 31, 2017			
	Total	Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	\$376.4	\$376.4	\$—	\$—
Equity securities	8.4	—	8.4	—
Other investments	368.9	—	—	368.9
Total financial instruments, including held-for-sale	753.7	376.4	8.4	368.9
Financial instruments, held-for-sale (Chaucer)	78.5	78.5	—	—
Total financial instruments, excluding held-for-sale	\$675.2	\$297.9	\$8.4	\$368.9
Liabilities:				
Debt	\$865.7	\$—	\$865.7	\$—

Table of Contents

The tables below provide a reconciliation for all assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3), including the held-for-sale assets of our Chaucer business.

(in millions)	Fixed Maturities		Commercial		Equity and Other	Total Assets
	Municipal	Corporate	mortgage-backed	Total		
Three Months Ended						
September 30, 2018						
Balance July 1, 2018	\$ 24.4	\$ 0.8	\$ 13.3	\$ 38.5	\$ 4.7	\$ 43.2
Transfers out of Level 3	(0.5)	—	—	(0.5)	—	(0.5)
Total losses:						
Included in other comprehensive						
income-net depreciation						
on available-for-sale securities	—	—	(0.2)	(0.2)	—	(0.2)
Sales	(0.4)	(0.1)	(0.1)	(0.6)	—	(0.6)
Balance September 30, 2018, including held-for-sale	23.5	0.7	13.0	37.2	4.7	41.9
Balance September 30, 2018, held-for-sale (Chaucer)	2.2	—	—	2.2	—	2.2
Balance September 30, 2018, excluding held-for-sale	\$ 21.3	\$ 0.7	\$ 13.0	\$ 35.0	\$ 4.7	\$ 39.7
Three Months Ended						
September 30, 2017						
Balance July 1, 2017	\$ 30.1	\$ 1.0	\$ 14.6	\$ 45.7	\$ 5.6	\$ 51.3
Transfers out of Level 3	(1.9)	—	—	(1.9)	(0.4)	(2.3)
Total gains:						
Included in other comprehensive						
income-net appreciation on available-for-sale						
securities	0.2	—	—	0.2	—	0.2
Sales	(0.3)	(0.1)	(0.2)	(0.6)	—	(0.6)
Balance September 30, 2017, including held-for-sale	28.1	0.9	14.4	43.4	5.2	48.6
Balance September 30, 2017, held-for-sale (Chaucer)	2.2	—	—	2.2	—	2.2
Balance September 30, 2017, excluding held-for-sale	\$ 25.9	\$ 0.9	\$ 14.4	\$ 41.2	\$ 5.2	\$ 46.4

Table of Contents

(in millions)	Fixed Maturities		Commercial		Equity and Other	Total Assets
	Municipal	Corporate	mortgage-backed	Total		
Nine Months Ended						
September 30, 2018						
Balance January 1, 2018	\$ 26.8	\$ 0.9	\$ 14.2	\$ 41.9	\$ 4.7	\$ 46.6
Transfers out of Level 3	(0.5)	—	—	(0.5)	—	(0.5)
Total gains (losses):						
Included in total net realized and unrealized						
investment gains	0.1	—	—	0.1	—	0.1
Included in other comprehensive						
income-net depreciation						
on available-for-sale securities	(0.6)	—	(0.5)	(1.1)	—	(1.1)
Sales	(2.3)	(0.2)	(0.7)	(3.2)	—	(3.2)
Balance September 30, 2018, including held-for-sale	23.5	0.7	13.0	37.2	4.7	41.9
Balance September 30, 2018, held-for-sale (Chaucer)	2.2	—	—	2.2	—	2.2
Balance September 30, 2018, excluding held-for-sale	\$ 21.3	\$ 0.7	\$ 13.0	\$ 35.0	\$ 4.7	\$ 39.7
Nine Months Ended						
September 30, 2017						
Balance January 1, 2017	\$ 31.0	\$ 4.2	\$ 15.0	\$ 50.2	\$ 5.6	\$ 55.8
Transfers out of Level 3	(1.9)	—	—	(1.9)	(0.4)	(2.3)
Total gains (losses):						
Included in total net realized and unrealized						
investment gains	—	0.3	—	0.3	—	0.3
Included in other comprehensive						
income-net appreciation (depreciation)						
on available-for-sale securities	0.6	(0.2)	0.1	0.5	—	0.5
Sales	(1.6)	(3.4)	(0.7)	(5.7)	—	(5.7)
Balance September 30, 2017, including held-for-sale	28.1	0.9	14.4	43.4	5.2	48.6
Balance September 30, 2017, held-for-sale (Chaucer)	2.2	—	—	2.2	—	2.2
Balance September 30, 2017, excluding held-for-sale	\$ 25.9	\$ 0.9	\$ 14.4	\$ 41.2	\$ 5.2	\$ 46.4

During the three and nine months ended September 30, 2018 and 2017, fixed maturities transferred from Level 3 to Level 2 primarily as a result of assessing the significance of unobservable inputs on the fair value measurement. During the three and nine months ended September 30, 2017, an equity security was transferred from Level 3 to Level 1 upon the availability of pricing from the third party pricing service. There were no transfers

between Level 1 and Level 2 in 2018 and 2017. There were no Level 3 liabilities held by the Company in 2018 and 2017.

Table of Contents

The following table provides quantitative information about the significant unobservable inputs used by the Company in the fair value measurements of Level 3 assets, including our Chaucer business held-for-sale. Where discounted cash flows were used in the valuation of fixed maturities, the internally-developed discount rate was adjusted by the significant unobservable inputs shown in the table. The table includes \$2.2 million of municipal fixed maturities at September 30, 2018 and December 31, 2017 that are held for sale.

(in millions)	Valuation Technique	Significant Unobservable Inputs	September 30, 2018		December 31, 2017	
			Fair Value	Range (Wtd Average)	Fair Value	Range (Wtd Average)
Fixed maturities:						
Municipal	Discounted cash flow	Discount for:	\$23.5		\$26.8	
		Small issue size		0.7 - 6.8% (3.2%)		0.7 - 6.8% (3.3%)
		Credit stress		1.3% (1.3%)		0.9 - 1.5% (1.2%)
		Above-market coupon		0.3 - 0.5% (0.5%)		0.3 - 0.5% (0.4%)
Corporate	Discounted cash flow	Discount for:	0.7		0.9	
		Small issue size		2.5% (2.5%)		2.5% (2.5%)
		Above-market coupon		0.3% (0.3%)		0.3% (0.3%)
Commercial mortgage-backed	Discounted cash flow	Discount for:	13.0		14.2	
		Small issue size		1.9 - 3.1% (2.7%)		1.9 - 3.1% (2.6%)
		Above-market coupon		0.5% (0.5%)		0.5% (0.5%)
		Lease structure		0.3% (0.3%)		0.3% (0.3%)
Equity securities	Market comparables	Net tangible asset market multiples	1.1	1.0X (1.0X)	1.1	1.0X (1.0X)
Other	Discounted cash flow	Discount rate	3.6	18.0% (18.0%)	3.6	18.0% (18.0%)

Significant increases (decreases) in any of the above inputs in isolation would result in a significantly lower (higher) fair value measurement. There were no interrelationships between these inputs which might magnify or mitigate the effect of changes in unobservable inputs on the fair value measurement.

7. Pension and Other Postretirement Benefit Plans

The components of net periodic pension cost for defined benefit pension and other postretirement benefit plans included in the Company's results of operations are as follows:

(in millions)	Three Months Ended			
	September 30,			
	2018	2017	2018	2017
	Pension Plans		Postretirement Plans	
Service cost - benefits earned during the period	\$—	\$—	\$—	\$—
Interest cost	5.0	5.4	0.1	0.1
Expected return on plan assets	(5.2)	(5.3)	—	—
Recognized net actuarial loss	2.4	3.4	—	—
Amortization of prior service cost	—	—	—	(0.3)
Net periodic pension cost (benefit)	\$2.2	\$3.5	\$0.1	\$(0.2)

(in millions)	Nine Months Ended September			
	30,			
	2018	2017	2018	2017
	Pension Plans		Postretirement Plans	
Service cost - benefits earned during the period	\$—	\$—	\$—	\$—
Interest cost	14.9	16.4	0.3	0.3
Expected return on plan assets	(15.5)	(16.1)	—	—
Recognized net actuarial loss	7.2	10.2	0.1	0.1
Amortization of prior service cost	—	—	(0.2)	(1.0)
Net periodic pension cost (benefit)	\$6.6	\$10.5	\$0.2	\$(0.6)

Net periodic pension benefit for Chaucer's pension plan of \$0.7 million and \$0.1 million for the three months ended September 30, 2018 and 2017, respectively, and \$2.0 million and \$0.2 million for the nine months ended September 30, 2018 and 2017, respectively, have been reported in discontinued operations and are not included in the amounts disclosed above.

Table of Contents

8. Other Comprehensive Income

The following tables provide changes in other comprehensive income (loss).

(in millions)	Three Months Ended September 30,					
	2018			2017		
	Pre-Tax	Tax Benefit (Expense)	Net of Tax	Pre-Tax	Tax Benefit (Expense)	Net of Tax
Unrealized gains (losses) on available-for-sale securities:						
Unrealized gains (losses) arising during period	\$(29.2)	\$ 6.2	\$(23.0)	\$23.1	\$ (8.0)	\$ 15.1
Amount of realized gains (losses) from sales and other	(0.2)	(2.4)	(2.6)	(15.2)	3.0	(12.2)
Portion of other-than-temporary impairment losses recognized in earnings	0.5	(0.1)	0.4	1.3	(0.5)	0.8
Net unrealized gains (losses)	(28.9)	3.7	(25.2)	9.2	(5.5)	3.7
Pension and postretirement benefits:						
Net change in net actuarial loss and prior service cost	2.4	(0.5)	1.9	3.5	(1.2)	2.3
Cumulative foreign currency translation adjustment:						
Foreign currency translation recognized during the period	2.0	(0.4)	1.6	1.7	(0.6)	1.1
Other comprehensive income (loss)	\$(24.5)	\$ 2.8	\$(21.7)	\$14.4	\$ (7.3)	\$ 7.1

(in millions)	Nine Months Ended September 30,					
	2018			2017		
	Pre-Tax	Tax Benefit (Expense)	Net of Tax	Pre-Tax	Tax Benefit (Expense)	Net of Tax
Unrealized gains (losses) on available-for-sale securities:						
Unrealized gains (losses) arising during period	\$(242.1)	\$ 50.9	\$(191.2)	\$102.1	\$ (35.8)	\$ 66.3
Amount of realized gains (losses) from sales and other	—	(8.2)	(8.2)	(26.5)	0.6	(25.9)
Portion of other-than-temporary impairment	2.0	(0.4)	1.6	3.3	(1.2)	2.1

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losses recognized in earnings						
Net unrealized gains (losses)	(240.1)	42.3	(197.8)	78.9	(36.4)	42.5
Pension and postretirement benefits:						
Net change in net actuarial loss and prior						
service cost	0.6	(0.1)	0.5	10.5	(3.5)	7.0
Cumulative foreign currency translation adjustment:						
Foreign currency translation recognized during						
the period	0.8	(0.2)	0.6	2.6	(0.9)	1.7
Other comprehensive income (loss)	\$(238.7)	\$ 42.0	\$(196.7)	\$92.0	\$ (40.8)	\$51.2

Table of Contents

Reclassifications out of accumulated other comprehensive income were as follows:

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,		Affected Line Item in the Statement Where Net Income is Presented
	2018	2017	2018	2017	
Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income				
Unrealized gains on available-for-sale securities	\$(0.2)	\$14.7	\$1.6	\$24.8	Net realized gains (losses) from sales and other
					Net other-than-temporary impairment losses on investments recognized
	(0.4)	(1.3)	(1.7)	(3.3)	in earnings
	(0.6)	13.4	(0.1)	21.5	Total before tax
	2.5	(2.4)	8.2	1.2	Tax benefit
	1.9	11.0	8.1	22.7	Continued Operations; Net of tax
	0.3	0.4	(1.5)	1.1	Discontinued Operations; Net of tax
	2.2	11.4	6.6	23.8	Net of tax
Amortization of defined benefit pension and postretirement plans	(2.5)	(3.1)	(7.2)	(9.3)	Loss adjustment expenses and other operating expenses
	0.5	1.1	1.5	3.3	Tax benefit
	(2.0)	(2.0)	(5.7)	(6.0)	Continued Operations; Net of tax
	—	(0.3)	(0.1)	(1.0)	Discontinued Operations; Net of tax
	(2.0)	(2.3)	(5.8)	(7.0)	Net of tax
Total reclassifications for the period	\$0.2	\$9.1	\$0.8	\$16.8	Benefit to income, net of tax

The amount reclassified from accumulated other comprehensive income for the pension and postretirement benefits was allocated approximately 40% to loss adjustment expenses and 60% to other operating expenses for the three and nine months ended September 30, 2018 and 2017.

9. Segment Information

The Company's primary business operations include insurance products and services provided through three operating segments: Commercial Lines, Personal Lines and Other. Commercial Lines includes commercial multiple peril, commercial automobile, workers' compensation, and other commercial coverages, such as inland marine, specialty program business, management and professional liability, surety and specialty property. Personal Lines includes personal automobile, homeowners and other personal coverages. Included in the Other segment are Opus Investment Management, Inc., which markets investment management services to institutions, pension funds and other organizations; earnings on holding company assets; holding company and other expenses, including certain costs

associated with retirement benefits due to the Company's former life insurance employees and agents; and, a run-off voluntary pools business. On September 13, 2018, the Company entered into a definitive agreement to sell Chaucer. Accordingly, as of September 30, 2018 and for all prior periods, Chaucer's results have been classified as Discontinued Operations in the Consolidated Statements of Income and its assets and liabilities have been classified as held-for-sale in the Consolidated Balance Sheets (see Note 3 – "Discontinued Operations"). Certain ongoing expenses have been reclassified from Chaucer to the other three operating segments. The separate financial information is presented consistent with the way results are regularly evaluated by the chief operating decision maker in deciding how to allocate resources and in assessing performance.

The Company reports interest expense related to debt separately from the earnings of its operating segments. This consists of interest on the Company's senior debentures, subordinated debentures, collateralized borrowings with the Federal Home Loan Bank of Boston, and letter of credit facility.

Management evaluates the results of the aforementioned segments based on operating income before taxes, excluding interest expense on debt. Operating income before taxes excludes certain items which are included in net income, such as net realized and unrealized investment gains and losses. Such gains and losses are excluded since they are determined by interest rates, financial markets and the timing of sales. Also, operating income before taxes excludes net gains and losses on disposals of businesses, gains and losses related to the repayment of debt, discontinued operations, costs to acquire businesses, restructuring costs, the cumulative effect of accounting changes and certain other items. Although the items excluded from operating income before taxes may be important components in understanding and assessing the Company's overall financial performance, management believes that the presentation of operating income before taxes enhances an investor's understanding of the Company's results of operations by highlighting net income attributable to the core operations of the business. However, operating income before taxes should not be construed as a substitute for income before income taxes and operating income should not be construed as a substitute for net income.

Table of Contents

Summarized below is financial information with respect to the Company's business segments.

(in millions)	Three Months		Nine Months Ended	
	Ended September 30, 2018	2017	September 30, 2018	2017
Operating revenues:				
Commercial Lines	\$687.4	\$648.2	\$2,045.7	\$1,913.2
Personal Lines	452.4	421.0	1,331.8	1,234.3
Other	3.8	3.4	10.2	7.4
Total	1,143.6	1,072.6	3,387.7	3,154.9
Net realized and unrealized investment gains	23.0	13.3	3.8	20.5
Total revenues	\$1,166.6	\$1,085.9	\$3,391.5	\$3,175.4
Operating income (loss) before interest expense and income taxes:				
Commercial Lines:				
Underwriting income (loss)	\$20.8	\$(13.9)	\$74.6	\$(14.7)
Net investment income	45.0	42.1	135.1	123.7
Other expense	(0.7)	(0.2)	(1.4)	(0.8)
Commercial Lines operating income	65.1	28.0	208.3	108.2
Personal Lines:				
Underwriting income	28.8	40.7	51.3	61.5
Net investment income	18.2	17.8	54.7	52.3
Other income	1.2	1.1	3.7	3.3
Personal Lines operating income	48.2	59.6	109.7	117.1
Other:				
Underwriting loss	(1.0)	(0.8)	(3.1)	(2.2)
Net investment income	3.2	2.7	8.2	5.3
Other expense	(2.7)	(3.3)	(9.7)	(10.1)
Other operating loss	(0.5)	(1.4)	(4.6)	(7.0)
Operating income before interest expense and income taxes	112.8	86.2	313.4	218.3
Interest on debt	(11.2)	(11.3)	(33.9)	(33.9)
Operating income before income taxes	101.6	74.9	279.5	184.4
Non-operating income items:				
Net realized and unrealized investment gains	23.0	13.3	3.8	20.5
Other non-operating items	(1.9)	(5.5)	(1.9)	(7.3)
Income before income taxes	\$122.7	\$82.7	\$281.4	\$197.6

The following table provides identifiable assets for the Company's business segments and discontinued operations:

(in millions)	September	December
	30, 2018	31, 2017
Identifiable Assets		

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U.S. Companies	\$11,274.5	\$10,915.0
Assets held-for-sale	4,247.2	4,466.6
Assets of discontinued life business	102.6	88.0
Total	\$15,624.3	\$15,469.6

The Company reviews the assets of its U.S. Companies collectively and does not allocate them between the Commercial Lines, Personal Lines and Other segments.

Table of Contents

10. Stock-based Compensation

As of September 30, 2018, there were 4,065,238 shares, 2,378,832 shares and 678,183 shares available for grant under The Hanover Insurance Group 2014 Long-Term Incentive Plan, The Hanover Insurance Group 2014 Employee Stock Purchase Plan and the Chaucer Share Incentive Plan, respectively.

Compensation cost for the Company's stock-based awards and the related tax benefits were as follows:

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Stock-based compensation expense	\$4.0	\$3.7	\$10.6	\$10.2
Tax benefit	(0.8)	(1.3)	(2.2)	(3.6)
Stock-based compensation expense, net of taxes	\$3.2	\$2.4	\$8.4	\$6.6

Stock-based compensation expense for Chaucer, net of taxes, of \$0.4 million and \$0.3 million for the three months ended September 30, 2018 and 2017, respectively, and \$1.2 million and \$0.9 million for the nine months ended September 30, 2018 and 2017, respectively, is reported in discontinued operations and is excluded from the amounts disclosed above.

Stock Options

Information on the Company's stock option activity for the nine months ended September 30, 2018 and 2017 is summarized below.

(in whole shares and dollars)	Nine Months Ended September 30,			
	2018		2017	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding, beginning of period	1,062,177	\$ 75.53	1,396,152	\$ 68.63
Granted	301,152	110.98	460,610	90.85
Exercised	(169,196)	70.94	(327,205)	57.29
Forfeited or cancelled	(54,063)	89.09	(28,042)	79.40
Outstanding, end of period	1,140,070	84.93	1,501,515	77.72

Restricted Stock Units

The following tables summarize activity information about employee restricted stock units:

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(in whole shares and dollars)	Nine Months Ended September 30, 2018		2017	
	Weighted Average		Weighted Average	
	Grant Date		Grant Date	
	Shares	Fair Value	Shares	Fair Value
Time-based restricted stock units:				
Outstanding, beginning of period	298,528	\$ 83.45	269,063	\$ 73.91
Granted	148,619	111.67	128,850	90.53
Vested	(72,546)	72.62	(70,590)	59.29
Forfeited	(23,130)	91.20	(26,615)	84.59
Outstanding, end of period	351,471	97.10	300,708	83.52
Performance-based and market-based restricted stock units:				
Outstanding, beginning of period	102,586	\$ 81.21	115,057	\$ 78.82
Granted	35,063	118.60	60,101	79.48
Vested	(14,032)	70.24	(17,642)	58.16
Forfeited	(7,625)	81.91	(2,180)	95.36
Outstanding, end of period	115,992	93.79	155,336	81.19

27

Table of Contents

In the first nine months of 2018 and 2017, the Company granted market-based awards totaling 31,688 and 56,571, respectively, to certain members of senior management, which are included in the table above as performance and market-based restricted stock activity. The vesting of these stock units is based on the relative total shareholder return (“TSR”) of the Company. This metric is generally based on relative TSR for a three-year period as compared to a pre-selected group of property and casualty companies. The fair value of market-based awards was estimated at the date of grant using a valuation model. These units have the potential to range from 0% to 150% of the shares disclosed. Included in the amount granted above in 2018 and 2017 are 3,115 shares and 5,881 shares, respectively, related to market-based awards that achieved a payout in excess of 100%. These awards vested in the first quarters of 2018 and 2017, respectively.

Performance-based restricted stock units are based upon the achievement of the performance metric at 100%. These units have the potential to range from 0% to 200% of the shares disclosed, which varies based on grant year and individual participation level. Increases above the 100% target level are reflected as granted in the period in which performance-based stock unit goals are achieved. Decreases below the 100% target level are reflected as forfeited. There were no awards vested in 2018 and 2017 at a level greater than 100%.

11. Earnings Per Share and Shareholders’ Equity Transactions

The following table provides weighted average share information used in the calculation of the Company’s basic and diluted earnings per share:

(in millions, except per share data)	Three Months Ended		Nine Months Ended	
	September 30, 2018	September 30, 2017	September 30, 2018	September 30, 2017
Basic shares used in the calculation of earnings per share	42.5	42.4	42.5	42.5
Dilutive effect of securities:				
Employee stock options	0.3	0.3	0.3	0.2
Non-vested stock grants	0.3	0.2	0.3	0.2
Diluted shares used in the calculation of earnings per share	43.1	42.9	43.1	42.9
Per share effect of dilutive securities on income from				
continuing operations	\$(0.04)	\$(0.02)	\$(0.07)	\$(0.03)
Per share effect of dilutive securities on net income	\$(0.03)	\$—	\$(0.08)	\$(0.03)

Diluted earnings per share for the three months ended September 30, 2017 excludes 0.5 million of common shares issuable under the Company’s stock compensation plans because their effect would be antidilutive. Diluted earnings per share for the nine months ended September 30, 2018 and 2017 excludes 0.3 million and 0.5 million, respectively, of common shares issuable under the Company’s stock compensation plans because their effect would be antidilutive.

The Company’s Board of Directors has authorized aggregate repurchases of the Company’s common stock of up to \$900 million. Under the repurchase authorizations, the Company may repurchase, from time to time, common shares in amounts, at prices and at such times as the Company deems appropriate, subject to market conditions and other considerations. Repurchases may be executed using open market purchases, privately negotiated transactions,

accelerated repurchase programs or other transactions. The Company is not required to purchase any specific number of shares or to make purchases by any certain date under this program. During the first nine months of 2018, the Company purchased approximately 0.4 million shares of the Company's common stock at a cost of \$44.2 million.

12. Liabilities for Outstanding Claims, Losses and Loss Adjustment Expenses

Reserve Rollforward and Prior Year Development

The Company regularly updates its reserve estimates as new information becomes available and further events occur which may impact the resolution of unsettled claims. Reserve adjustments are reflected in results of operations as adjustments to losses and LAE. Often these adjustments are recognized in periods subsequent to the period in which the underlying policy was written and loss event occurred. These types of subsequent adjustments are described as "prior years' loss reserves". Such development can be either favorable or unfavorable to the Company's financial results and may vary by line of business. In this section, all amounts presented include catastrophe losses and LAE, unless otherwise indicated.

Table of Contents

The table below provides a reconciliation of the gross beginning and ending reserve for unpaid losses and loss adjustment expenses.

(in millions)	Nine Months Ended	
	September 30,	
	2018	2017
Gross loss and LAE reserves, beginning of period	\$5,058.5	\$4,660.0
Reinsurance recoverable on unpaid losses	1,455.0	1,349.2
Net loss and LAE reserves, beginning of period	3,603.5	3,310.8
Net incurred losses and LAE in respect of losses occurring in:		
Current year	2,025.6	1,938.5
Prior years	(7.1)	(0.3)
Total incurred losses and LAE	2,018.5	1,938.2
Net payments of losses and LAE in respect of losses		
occurring in:		
Current year	848.6	828.3
Prior years	997.3	859.8
Total payments	1,845.9	1,688.1
Net reserve for losses and LAE, end of period	3,776.1	3,560.9
Reinsurance recoverable on unpaid losses	1,412.8	1,374.2
Gross reserve for losses and LAE, end of period	\$5,188.9	\$4,935.1

As a result of continuing trends in the Company's business, reserves including catastrophes have been re-estimated for all prior accident years and were decreased by \$7.1 million in 2018 in comparison to a decrease of \$0.3 million in 2017.

2018

For the nine months ended September 30, 2018, net favorable loss and LAE development was \$7.1 million, primarily as a result of favorable catastrophe development related to the 2017 hurricanes and California wildfires. In addition, lower than expected losses in workers' compensation of \$14.2 million and other commercial lines of \$14.0 million was partially offset by higher than expected losses in our commercial and personal automobile lines of \$22.8 million and, to a lesser extent, in our homeowners line. Within other commercial lines, lower than expected losses in our professional and management liability and monoline general liability lines was partially offset by higher than expected losses in AIX programs and business classes which have been terminated.

2017

For the nine months ended September 30, 2017, net favorable loss and LAE development was \$0.3 million, primarily as a result of favorable catastrophe development related to the 2016 hurricane Matthew.

13. Commitments and Contingencies

Legal Proceedings

Durand Litigation

On March 12, 2007, a putative class action suit captioned Jennifer A. Durand v. The Hanover Insurance Group, Inc., and The Allmerica Financial Cash Balance Pension Plan, was filed in the United States District Court for the Western District of Kentucky. The named plaintiff, a former employee of the Company's former life insurance and annuity business who received a lump sum distribution from the Company's Cash Balance Plan (the "Plan") at or about the time of her separation from the company, claims that she and others similarly situated did not receive the appropriate lump sum distribution because in computing the lump sum, the Company and the Plan understated the accrued benefit in the calculation. The plaintiff claims that the Plan underpaid her distributions and those of similarly situated participants by failing to pay an additional so-called "whipsaw" amount reflecting the present value of an estimate of future interest credits from the date of the lump sum distribution to each participant's retirement age of 65 ("whipsaw claim").

The plaintiff filed an Amended Complaint adding two new named plaintiffs and additional claims on December 11, 2009. Two of the three new claims set forth in the Amended Complaint were dismissed by the District Court, which action was upheld in November 2015 by the U.S. Court of Appeals, Sixth Circuit. The District Court, however, did allow to stand the new claim in the Amended Complaint for breach of fiduciary duty and failure to meet notice requirements arising under the Employee Retirement Income Security Act of 1974 ("ERISA") from the various interest crediting and lump sum distribution matters of which plaintiffs complain, but only as to plaintiffs' "whipsaw" claim that remained in the case. On December 17, 2013, the Court entered an order certifying a class to bring "whipsaw" and related breach of fiduciary duty claims consisting of all persons who received a lump sum distribution between March 1, 1997 and December 31, 2003.

Table of Contents

On February 16, 2018, the Court entered an order limiting the claims of those participants who received lump sum distributions prior to March 13, 2002 to alleged violations of ERISA's disclosure requirements and breaches of fiduciary duty. Subsequently, the parties entered into settlement discussions and have reached a settlement in principle on major terms, which is subject to agreement on certain other terms, written documentation, and Court approval. Provided the parties are able to finalize such settlement on substantially the terms agreed upon in principle and obtain the necessary Court approval, the Company does not believe the resulting settlement amount will be material to its financial position or have a material effect on its results of operations.

Other Matters

The Company has been named a defendant in various other legal proceedings arising in the normal course of business. In addition, the Company is involved, from time to time, in examinations, investigations and proceedings by governmental and self-regulatory agencies. The potential outcome of any such action or regulatory proceedings in which the Company has been named a defendant or the subject of an inquiry or investigation, and its ultimate liability, if any, from such action or regulatory proceedings, is difficult to predict at this time. The ultimate resolutions of such proceedings are not expected to have a material effect on its financial position, although they could have a material effect on the results of operations for a particular quarter or annual period.

Residual Markets

The Company is required to participate in residual markets in various states, which generally pertain to high risk insureds, disrupted markets or lines of business or geographic areas where rates are regarded as excessive. The results of the residual markets are not subject to the predictability associated with the Company's own managed business, and are significant to both the personal and commercial automobile lines of business and the workers' compensation line of business.

14. Subsequent Events

There were no subsequent events requiring adjustment to the financial statements and no additional disclosures required in the notes to the interim consolidated financial statements.

Table of Contents

PART I

ITEM 2

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

TABLE OF CONTENTS

<u>Introduction</u>	32
<u>Executive Overview</u>	32
<u>Description of Operating Segments</u>	33
<u>Results of Operations - Consolidated</u>	33
<u>Results of Operations - Segments</u>	35
<u>Investments</u>	42
<u>Other Items</u>	46
<u>Discontinued Chaucer Business</u>	47
<u>Income Taxes</u>	49
<u>Critical Accounting Estimates</u>	50
<u>Statutory Surplus of U.S. Insurance Subsidiaries</u>	51
<u>Liquidity and Capital Resources</u>	51
<u>Off - Balance Sheet Arrangements</u>	53
<u>Contingencies and Regulatory Matters</u>	53
<u>Risks and Forward - Looking Statements</u>	53

Table of Contents

Introduction

The following Management's Discussion and Analysis of Financial Condition and Results of Operations is intended to assist readers in understanding the interim consolidated results of operations and financial condition of The Hanover Insurance Group, Inc. and its subsidiaries ("THG"). Consolidated results of operations and financial condition are prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP"). This discussion should be read in conjunction with the interim consolidated financial statements and related footnotes included elsewhere in this Quarterly Report on Form 10-Q and Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 27, 2018.

Results of operations include the accounts of The Hanover Insurance Company ("Hanover Insurance") and Citizens Insurance Company of America ("Citizens"), our principal U.S.-domiciled property and casualty companies; and certain other insurance and non-insurance subsidiaries. On September 13, 2018, we entered into a definitive agreement to sell Chaucer Holdings Limited ("Chaucer"), our United Kingdom ("U.K.") domiciled specialist insurance underwriting group which operates through the Society and Corporation of Lloyd's ("Lloyd's") and the international insurance and non-insurance subsidiaries, which collectively constitute our Chaucer segment, to China Reinsurance (Group) Corporation ("China Re"). Accordingly, as of September 30, 2018 and for all prior periods presented, operations of Chaucer have been presented as discontinued operations and the related assets and liabilities as held-for-sale in this Quarterly Report on Form 10-Q. The agreement provides for China Re to pay cash consideration of up to \$865 million, consisting of initial consideration of \$820 million payable at closing and contingent consideration of \$45 million to be held in escrow, which may be adjusted downwards if catastrophe losses incurred in 2018 are above a certain threshold. In addition to the cash consideration payable from China Re, the holding company received \$85.0 million of dividends from Chaucer during the second quarter of 2018 for total cash proceeds related to the sale of Chaucer of up to \$950.0 million. The transaction was structured so that, subject to certain exceptions, the risks and rewards of Chaucer's business from April 1, 2018 until closing, are transferred to China Re. The transaction is anticipated to close late this year or in the first quarter of next year, subject to regulatory approvals and other customary closing conditions. (See "Discontinued Operations" section below for further discussion.) Results of operations also include the discontinued operations of our accident and health and former life insurance businesses.

Executive Overview

Business operations consist of three operating segments: Commercial Lines, Personal Lines and Other.

Net income was \$267.4 million during the nine months ended September 30, 2018, compared to \$134.7 million for the nine months ended September 30, 2017, an increase of \$132.7 million, primarily due to higher operating income.

Operating income before interest expense and income taxes (a non-GAAP financial measure; see also "Results of Operations – Consolidated – Non-GAAP Financial Measures") was \$313.4 million for the nine months ended September 30, 2018, compared to \$218.3 million for the nine months ended September 30, 2017, an increase of \$95.1 million. This increase is primarily due to lower catastrophe losses, the favorable change in reinsurance reinstatement premiums, earned premium growth, higher net investment income and lower expenses, partially offset by higher non-catastrophe current accident year losses. Pre-tax catastrophe losses were \$169.2 million for the nine months ended September 30, 2018, compared to \$209.8 million during the same period of 2017. Reinsurance reinstatement premium, net of ceding commissions, had a favorable impact of \$0.9 million for the nine months ended September 30, 2018, compared to an unfavorable impact of \$18.4 million for the nine months ended September 30, 2017, a favorable change of \$19.3 million. Net unfavorable development on prior years' loss and loss adjustment expense ("LAE")

reserves (“prior years’ loss reserves”) was \$0.7 million for the nine months ended September 30, 2018, compared to \$0.9 million during the same period of 2017.

Our strategy reinforces our commitment to our agency partners and is designed to generate profitable growth by leveraging the strengths of our distribution strategy, including expansion of our agency footprint in underpenetrated geographies as warranted. We also have increased our capabilities in specialty markets and investments designed to develop growth solutions for our agency distribution channel. Our goal is to grow responsibly in all of our businesses, while managing volatility.

On September 13, 2018, we entered into a definitive agreement to sell Chaucer. The transaction is anticipated to close late this year or in the first quarter of next year, subject to regulatory approvals and other customary closing conditions.

Commercial Lines

Our approach to the small commercial market, distinctiveness in the middle market, and continued development of specialty lines provides us with a diversified portfolio of products and delivers significant value to agents and policyholders. Each of these businesses is expected to contribute to premium growth in Commercial Lines over the next several years as we continue to pursue our core strategy of developing strong partnerships with agents, enhanced franchise value through limited distribution, distinctive products and coverages, and continued investment in industry and line of business specialization.

Table of Contents

These efforts have driven, and we believe they will continue to drive, improvement in our overall mix of business and our underwriting profitability. Commercial Lines net premiums written grew by 6.0% in the first nine months of 2018, due to growth in small commercial, middle market, and the professional lines within our specialty businesses. Approximately 4.6% of this growth was due to rate and exposure increases, strong retention and targeted new business expansion, with the balance being attributable to reinsurance reinstatement activity.

Underwriting results improved in the first nine months of 2018, primarily due to lower catastrophe losses, the favorable change in reinsurance reinstatement premiums, driven by prior year large loss activity, favorable development on prior years' loss reserves, and lower expenses, partially offset by higher non-catastrophe current accident year losses. The competitive nature of the Commercial Lines market requires us to be highly disciplined in our underwriting process to ensure that we write business at acceptable margins, and we continue to seek rate increases across our lines of business.

Personal Lines

Personal Lines focuses on partnering with high quality, value-oriented agencies that deliver consultative selling and stress the importance of account rounding (the conversion of single policy customers to accounts with multiple policies and additional coverages, to address customers' broader objectives). Approximately 84% of our policies in force are account business. We are focused on seeking profitable growth opportunities, building a distinctive position in the market, and diversifying geographically.

Net premiums written grew by 8.0% in the first nine months of 2018, primarily due to higher renewal premium, driven by rate increases and strong retention, as well as new business growth. Underwriting results declined in the first nine months of 2018, primarily due to higher unfavorable development on prior years' loss reserves, partially offset by earned premium growth. We continue to seek rate increases in excess of underlying loss cost trends, subject to regulatory and competitive considerations.

Description of Operating Segments

Primary business operations include insurance products and services currently provided through three operating segments: Commercial Lines, Personal Lines, and Other. Commercial Lines includes commercial multiple peril, commercial automobile, workers' compensation and other commercial coverages, such as inland marine, specialty program business, management and professional liability, surety and specialty property. Personal Lines includes personal automobile, homeowners and other personal coverages. Included in the "Other" segment are Opus Investment Management, Inc., which markets investment management services to institutions, pension funds and other organizations; earnings on holding company assets; holding company and other expenses, including certain costs associated with retirement benefits due to our former life insurance employees and agents; and a run-off voluntary pools business. As of September 30, 2018, due to the definitive agreement to sell Chaucer that we entered into on September 13, 2018, the operations of Chaucer have been classified as Discontinued Operations. We present the separate financial information of each segment consistent with the manner in which our chief operating decision maker evaluates results in deciding how to allocate resources and in assessing performance.

We report interest expense on debt separately from the earnings of our operating segments. This consists of interest on our senior debentures, subordinated debentures, collateralized borrowings with the Federal Home Loan Bank of Boston ("FHLBB"), and letter of credit facility.

Results of Operations – Consolidated

Consolidated net income for the three months ended September 30, 2018 was \$100.4 million, compared to \$11.1 million for the three months ended September 30, 2017, an increase of \$89.3 million. Operating income before interest expense and income taxes for the three months ended September 30, 2018 increased \$26.6 million, primarily due to lower catastrophe losses, earned premium growth and higher net investment income, partially offset by higher non-catastrophe current accident year losses. Additionally, income tax expense on operating income for the three months ended September 30, 2018 decreased \$6.2 million, primarily driven by a decrease in the U.S. statutory tax rate from 35% to 21% effective January 1, 2018. The year over year comparison of consolidated net income was also affected by an increase in net realized and unrealized investment gains of \$9.7 million, principally related to the changes in fair value of equity securities. Effective January 1, 2018, we implemented ASU 2016-01, which requires that the changes in fair value of equity securities be presented in net income. Prior to then, these changes were recognized through accumulated other comprehensive income (see also Note 2 – “New Accounting Pronouncements” in the Notes to Interim Consolidated Financial Statements”), and therefore are not reflected in prior period net income. Additionally, net income was also affected by an improvement in the results of our discontinued Chaucer business of \$43.6 million. (See also the “Discontinued Operations” section below).

Consolidated net income for the nine months ended September 30, 2018 was \$267.4 million, compared to \$134.7 million for the nine months ended September 30, 2017, an increase of \$132.7 million. Operating income before interest expense and income taxes for the nine months ended September 30, 2018 increased \$95.1 million, primarily due to lower catastrophe losses, the favorable change in reinsurance reinstatement premiums, earned premium growth, higher net investment income and lower expenses, partially offset by higher non-catastrophe current accident year losses. Additionally, income tax expense on operating income for the nine months ended September 30, 2018 decreased \$5.3 million, primarily driven by the aforementioned decrease in the U.S. statutory tax rate. These were partially offset by a decrease in net realized and unrealized gains of \$16.7 million, primarily due to a lower level of realized gains

Table of Contents

from sales of securities. The year over year comparison of consolidated net income was also affected by an improvement in the results of our discontinued Chaucer business of \$38.8 million. (See also the “Discontinued Operations” section below).

The following table reflects operating income before interest expense and income taxes for each operating segment and a reconciliation to consolidated net income from operating income before interest expense and income taxes (a non-GAAP measure).

(in millions)	Three Months Ended September 30, 2018		September 30, 2017	
Operating income (loss) before interest expense and income taxes:				
Commercial Lines	\$65.1	\$28.0	\$208.3	\$108.2
Personal Lines	48.2	59.6	109.7	117.1
Other	(0.5)	(1.4)	(4.6)	(7.0)
Operating income before interest expense and income taxes	112.8	86.2	313.4	218.3
Interest expense on debt	(11.2)	(11.3)	(33.9)	(33.9)
Operating income before income taxes	101.6	74.9	279.5	184.4
Income tax expense on operating income	(16.7)	(22.9)	(52.3)	(57.6)
Operating income	84.9	52.0	227.2	126.8
Non-operating items:				
Net realized and unrealized investment gains	23.0	13.3	3.8	20.5
Other	(1.9)	(5.5)	(1.9)	(7.3)
Income tax (expense) benefit on non-operating items	(2.0)	(0.3)	7.8	4.2
Income from continuing operations, net of taxes	104.0	59.5	236.9	144.2
Income (loss) from discontinued Chaucer business, net of taxes	(3.6)	(47.2)	30.5	(8.3)
Net loss from discontinued life business, net of taxes	—	(1.2)	—	(1.2)
Net income	\$100.4	\$11.1	\$267.4	\$134.7

Non-GAAP Financial Measures

In addition to consolidated net income, discussed above, we assess our financial performance based upon pre-tax “operating income,” and we assess the operating performance of each of our three operating segments based upon the pre-tax operating income (loss) generated by each segment. As reflected in the table above, operating income before taxes excludes interest expense on debt and certain other items which we believe are not indicative of our core operations, such as net realized and unrealized investment gains and losses. Such gains and losses are excluded since they are determined by interest rates, financial markets and the timing of sales. Also, operating income before taxes excludes net gains and losses on disposals of businesses, gains and losses related to the repayment of debt, discontinued operations, costs to acquire businesses, restructuring costs, the cumulative effect of accounting changes and certain other items. Although the items excluded from operating income before taxes are important components in understanding and assessing our overall financial performance, we believe a discussion of operating income before taxes enhances an investor’s understanding of our results of operations by highlighting net income attributable to the core operations of the business. However, operating income before taxes, which is a non-GAAP measure, should not be construed as a substitute for income before income taxes and operating income should not be construed as a substitute for net income.

Catastrophe losses and prior years' reserve development are significant components in understanding and assessing the financial performance of our business. Management reviews and evaluates catastrophes and prior years' reserve development separately from the other components of earnings. References to "current accident year underwriting results" exclude catastrophes and prior accident year reserve development. Catastrophes and prior years' reserve development are not predictable as to timing or the amount that will affect the results of our operations and have an effect on each year's operating and net income. Management believes that providing certain financial metrics and trends excluding the effects of catastrophes and prior years' reserve development helps investors to understand the variability in periodic earnings and to evaluate the underlying performance of our operations. Discussion of catastrophe losses in this Management's Discussion and Analysis of Financial Condition and Results of Operations includes development on prior years' catastrophe reserves and, unless otherwise indicated, such development is excluded from discussions on prior year loss and LAE reserve development.

With respect to the anticipated sale of Chaucer, we have also provided a total proceeds amount of up to \$950 million, which is a non-GAAP amount. This amount is the sum of cash proceeds from China Re of up to \$865 million and the second quarter pre-signing dividend that the holding company has received from Chaucer of \$85.0 million.

Table of Contents

Results of Operations – Segments

The following is our discussion and analysis of the results of operations by business segment. The operating results are presented before interest expense, taxes and other items which management believes are not indicative of our core operations, including net realized and unrealized investment gains and losses and the results of discontinued operations.

The following table summarizes the results of operations for the periods indicated:

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Operating revenues				
Net premiums written	\$1,177.2	\$1,119.0	\$3,340.1	\$3,128.5
Net premiums earned	1,071.7	1,004.4	3,172.4	2,957.0
Net investment income	66.4	62.6	198.0	181.3
Other income	5.5	5.6	17.3	16.6
Total operating revenues	1,143.6	1,072.6	3,387.7	3,154.9
Losses and operating expenses				
Losses and LAE	676.4	652.7	2,018.5	1,934.4
Amortization of deferred acquisition costs	224.4	211.4	664.7	625.6
Other operating expenses	130.0	122.3	391.1	376.6
Total losses and operating expenses	1,030.8	986.4	3,074.3	2,936.6
Operating income before interest expense and income taxes	\$112.8	\$86.2	\$313.4	\$218.3

Three Months Ended September 30, 2018 Compared to Three Months Ended September 30, 2017

Operating income before interest expense and income taxes was \$112.8 million in the three months ended September 30, 2018, compared to \$86.2 million for the three months ended September 30, 2017, an increase of \$26.6 million. This increase was primarily due to lower catastrophe losses, earned premium growth and higher net investment income, partially offset by higher current accident year losses.

Net premiums written increased by \$58.2 million in the three months ended September 30, 2018, compared to the three months ended September 30, 2017, due to growth in both our Commercial and Personal Lines segments.

Production and Underwriting Results

The following table summarizes premiums written on a gross and net basis, net premiums earned and loss, LAE, expense and combined ratios for the Commercial Lines and Personal Lines segments. Loss, LAE, catastrophe loss and combined ratios shown below include prior year reserve development. These items are not meaningful for our Other segment.

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Three Months Ended September 30, 2018

Gross Net Net

	Premiums	Premiums	Premiums	Catastrophe	Loss & LAE	Expense	Combined
(dollars in millions)	Written	Written	Earned	Loss Ratios	Ratios	Ratios	Ratios
Commercial Lines	\$801.6	\$709.2	\$640.4	5.1	62.0	34.6	96.6
Personal Lines	495.1	468.0	431.3	2.9	64.8	28.0	92.8
Total	\$1,296.7	\$1,177.2	\$1,071.7	4.2	63.1	32.0	95.1

Three Months Ended September 30, 2017

Gross Net Net

	Premiums	Premiums	Premiums	Catastrophe	Loss & LAE	Expense	Combined
(dollars in millions)	Written	Written	Earned	Loss Ratios	Ratios	Ratios	Ratios
Commercial Lines	\$772.8	\$680.2	\$604.0	10.3	67.1	35.0	102.1
Personal Lines	462.0	438.8	400.4	3.7	61.7	27.5	89.2
Total	\$1,234.8	\$1,119.0	\$1,004.4	7.7	65.0	32.1	97.1

Table of Contents

The following table summarizes net premiums written, and loss and LAE and catastrophe loss ratios by line of business for the Commercial Lines and Personal Lines segments. Loss and LAE and catastrophe loss ratios include prior year reserve development.

(dollars in millions)	Three Months Ended September 30,					
	2018			2017		
	Premium Written	Loss & LAE Ratios	Catastrophe Loss Ratios	Premium Written	Loss & LAE Ratios	Catastrophe Loss Ratios
Commercial Lines:						
Commercial multiple peril	\$251.8	65.6	10.0	\$240.2	61.4	9.0
Commercial automobile	92.3	84.4	0.7	87.9	72.9	4.8
Workers' compensation	81.7	52.2	—	81.6	61.4	—
Other commercial	283.4	54.8	4.0	270.5	71.7	16.2
Total Commercial Lines	\$709.2	62.0	5.1	\$680.2	67.1	10.3
Personal Lines:						
Personal automobile	\$291.4	69.4	0.4	\$272.2	68.0	0.5
Homeowners	165.0	57.4	7.6	156.1	52.2	9.7
Other personal	11.6	47.0	1.0	10.5	35.4	2.1
Total Personal Lines	\$468.0	64.8	2.9	\$438.8	61.7	3.7

The following table summarizes underwriting results for the Commercial Lines, Personal Lines, and Other segments and reconciles it to operating income (loss) before interest expense and income taxes.

(in millions)	Three Months Ended September 30,							
	2018				2017			
	Commercial Lines	Personal Lines	Other	Total	Commercial Lines	Personal Lines	Other	Total
Underwriting profit (loss), excluding prior year reserve development and catastrophes	\$44.8	\$49.7	\$(0.7)	\$93.8	\$48.2	\$55.7	\$(0.5)	\$103.4
Prior year favorable (unfavorable) loss and LAE reserve development on	8.5	(8.5)	(0.3)	(0.3)	—	—	(0.3)	(0.3)

non-catastrophe losses								
Prior year favorable								
catastrophe development	0.7	—	—	0.7	0.4	—	—	0.4
Current year catastrophe losses	(33.2)	(12.4)	—	(45.6)	(62.5)	(15.0)	—	(77.5)
Underwriting profit (loss)	20.8	28.8	(1.0)	48.6	(13.9)	40.7	(0.8)	26.0
Net investment income	45.0	18.2	3.2	66.4	42.1	17.8	2.7	62.6
Fees and other income	2.0	2.9	0.6	5.5	2.1	2.8	0.7	5.6
Other operating expenses	(2.7)	(1.7)	(3.3)	(7.7)	(2.3)	(1.7)	(4.0)	(8.0)
Operating income (loss) before								
interest expense and								
income taxes	\$65.1	\$ 48.2	\$(0.5)	\$112.8	\$28.0	\$ 59.6	\$(1.4)	\$86.2

Commercial Lines

Commercial Lines net premiums written were \$709.2 million in the three months ended September 30, 2018, compared to \$680.2 million in the three months ended September 30, 2017. This \$29.0 million increase was primarily driven by pricing increases, strong retention, and targeted new business expansion.

Commercial Lines underwriting profit for the three months ended September 30, 2018 was \$20.8 million, compared to an underwriting loss of \$13.9 million for the three months ended September 30, 2017, an increase of \$34.7 million. Catastrophe-related losses for the three months ended September 30, 2018 were \$32.5 million, compared to \$62.1 million for the three months ended September 30, 2017, a decrease of \$29.6 million. Favorable development on prior years' loss reserves for the three months ended September 30, 2018 was \$8.5 million, compared to de minimus development for the three months ended September 30, 2017.

Table of Contents

Commercial Lines current accident year underwriting profit, excluding catastrophes, was \$44.8 million for the three months ended September 30, 2018, compared to \$48.2 million for the three months ended September 30, 2017. This \$3.4 million decrease was primarily due to higher non-catastrophe current accident year losses driven by large property loss activity in our commercial multiple peril line and higher loss activity in our commercial automobile liability lines, partially offset by lower loss activity in our inland marine line, within our other commercial lines, as well as earned premium growth and lower expenses.

We are continuing our efforts to improve underwriting results through increased rates, pricing segmentation, specific underwriting actions and targeted new business growth. Our ability to achieve overall rate increases is affected by the current competitive pricing environment, particularly for larger middle market accounts, which may hamper our ability to grow in this portion of our business.

Personal Lines

Personal Lines net premiums written were \$468.0 million in the three months ended September 30, 2018, compared to \$438.8 million in the three months ended September 30, 2017, an increase of \$29.2 million. This was primarily due to higher renewal premiums driven by rate increases.

Net premiums written in the personal automobile line of business for the three months ended September 30, 2018 were \$291.4 million, compared to \$272.2 million for the three months ended September 30, 2017, an increase of \$19.2 million. This was primarily due to rate increases and an increase in policies in force of 2.8%. Net premiums written in the homeowners line of business for the three months ended September 30, 2018 were \$165.0 million, compared to \$156.1 million for the three months ended September 30, 2017, an increase of \$8.9 million. This is attributable to rate increases and an increase in policies in force of 3.3%.

Personal Lines underwriting profit for the three months ended September 30, 2018 was \$28.8 million, compared to \$40.7 million for the three months ended September 30, 2017, a decline of \$11.9 million. Catastrophe losses for the three months ended September 30, 2018 were \$12.4 million, compared to \$15.0 million for the three months ended September 30, 2017, a decrease of \$2.6 million. Unfavorable development on prior years' loss reserves for the three months ended September 30, 2018 was \$8.5 million, compared to de minimus development for the three months ended September 30, 2017.

Personal Lines current accident year underwriting profit, excluding catastrophes, was \$49.7 million in the three months ended September 30, 2018, compared to \$55.7 million for the three months ended September 30, 2017. This \$6.0 million decline was primarily due to higher non-catastrophe current accident year losses in our homeowners line and higher expenses, driven by agency-based compensation, partially offset by earned premium growth.

We have been able to obtain rate increases in our Personal Lines markets and we will continue to seek rate increases to meet or exceed loss cost trends. However, our ability to maintain Personal Lines net premiums written may be affected by price competition, our exposure management actions, and regulatory and legal developments. Additionally, these factors, along with weather-related loss volatility, may affect our ability to maintain and improve underwriting results. We monitor these trends and consider them in our rate actions.

Other

Other operating loss was \$0.5 million for the three months ended September 30, 2018, compared to \$1.4 million for the three months ended September 30, 2017, a change of \$0.9 million.

Nine Months Ended September 30, 2018 Compared to Nine Months Ended September 30, 2017

Operating income before interest expense and income taxes was \$313.4 million in the nine months ended September 30, 2018, compared to \$218.3 million for the nine months ended September 30, 2017, an increase of \$95.1 million. This increase is primarily due to lower catastrophe losses, a favorable change in reinsurance reinstatement premiums, driven by prior year large loss activity, earned premium growth, higher net investment income and lower expenses, partially offset by higher non-catastrophe current accident year losses.

Net premiums written increased by \$211.6 million in the nine months ended September 30, 2018, compared to the nine months ended September 30, 2017 due to growth in both our Commercial and Personal Lines segments.

Table of Contents

Production and Underwriting Results

The following table summarizes premiums written on a gross and net basis, net premiums earned and loss, LAE, expense and combined ratios for the Commercial Lines and Personal Lines segments. Loss, LAE, catastrophe loss and combined ratios shown below include prior year reserve development. These items are not meaningful for our Other segment.

Nine Months Ended September 30, 2018							
	Gross	Net	Net				
	Premiums	Premiums	Premiums	Catastrophe	Loss & LAE	Expense	Combined
(dollars in millions)	Written	Written	Earned	Loss Ratios	Ratios	Ratios	Ratios
Commercial Lines	\$2,278.3	\$2,010.7	\$1,904.0	5.0	61.0	34.9	95.9
Personal Lines	1,403.8	1,329.4	1,268.4	5.8	67.5	27.9	95.4
Total	\$3,682.1	\$3,340.1	\$3,172.4	5.3	63.6	32.2	95.8

Nine Months Ended September 30, 2017							
	Gross	Net	Net				
	Premiums	Premiums	Premiums	Catastrophe	Loss & LAE	Expense	Combined
(dollars in millions)	Written	Written	Earned	Loss Ratios	Ratios	Ratios	Ratios
Commercial Lines	\$2,176.0	\$1,897.1	\$1,783.5	7.9	65.0	35.6	100.6
Personal Lines	1,298.7	1,231.4	1,173.5	5.9	66.0	28.2	94.2
Total	\$3,474.7	\$3,128.5	\$2,957.0	7.1	65.4	32.7	98.1

The following table summarizes net premiums written, and loss and LAE and catastrophe loss ratios by line of business for the Commercial Lines and Personal Lines segments. Loss and LAE and catastrophe loss ratios include prior year reserve development.

Nine Months Ended September 30,						
	2018			2017		
	Net			Net		
	Premiums	Loss & LAE	Catastrophe	Premiums	Loss & LAE	Catastrophe
(dollars in millions)	Written	Ratios	Loss Ratios	Written	Ratios	Loss Ratios
Commercial Lines:						
Commercial multiple peril	\$669.1	64.7	9.4	\$634.6	65.5	11.3
Commercial automobile	265.9	77.2	1.1	249.4	70.3	2.2
Workers' compensation	249.4	55.7	—	241.7	62.3	—
Other commercial	826.3	54.5	4.3	771.4	63.7	9.3

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Total Commercial Lines	\$2,010.7	61.0	5.0	\$1,897.1	65.0	7.9
Personal Lines:						
Personal automobile	\$847.1	70.2	0.6	\$781.4	69.5	0.6
Homeowners	451.0	64.0	15.6	421.1	61.5	15.6
Other personal	31.3	45.6	2.4	28.9	38.8	1.7
Total Personal Lines	\$1,329.4	67.5	5.8	\$1,231.4	66.0	5.9

Table of Contents

The following table summarizes underwriting results for the Commercial Lines, Personal Lines, and Other segments and reconciles it to operating income.

(in millions)	Nine Months Ended September 30, 2018				2017			
	Commercial Lines	Personal Lines	Other	Total	Commercial Lines	Personal Lines	Other	Total
Underwriting profit (loss), excluding prior year reserve								
development and catastrophes	\$151.8	\$143.1	\$(2.2)	\$292.7	\$126.3	\$130.3	\$(1.3)	\$255.3
Prior year favorable (unfavorable)								
loss and LAE reserve								
development on								
non-catastrophe losses	18.1	(17.9)	(0.9)	(0.7)	0.1	(0.1)	(0.9)	(0.9)
Prior year favorable								
catastrophe development	7.6	0.2	—	7.8	1.2	—	—	1.2
Current year catastrophe losses	(102.9)	(74.1)	—	(177.0)	(142.3)	(68.7)	—	(211.0)
Underwriting profit (loss)	74.6	51.3	(3.1)	122.8	(14.7)	61.5	(2.2)	44.6
Net investment income	135.1	54.7	8.2	198.0	123.7	52.3	5.3	181.3
Fees and other income	6.6	8.7	2.0	17.3	6.0	8.5	2.1	16.6
Other operating expenses	(8.0)	(5.0)	(11.7)	(24.7)	(6.8)	(5.2)	(12.2)	(24.2)
Operating income (loss) before								
interest expense and								
income taxes	\$208.3	\$109.7	\$(4.6)	\$313.4	\$108.2	\$117.1	\$(7.0)	\$218.3

Commercial Lines

Commercial Lines net premiums written were \$2,010.7 million in the nine months ended September 30, 2018, compared to \$1,897.1 million in the nine months ended September 30, 2017. This \$113.6 million increase was primarily driven by pricing increases, strong retention, and targeted new business expansion, in addition to the favorable change in reinsurance reinstatement premiums. Reinsurance reinstatement activity increased net written and earned premiums by \$1.8 million for the nine months ended September 30, 2018, compared to a \$23.7 million decrease for the nine months ended September 30, 2017, a favorable change of \$25.5 million. The unusually high level of reinstatement premiums recorded for the nine months ended September 30, 2017 was due to several large losses above our reinsurance retention level in our inland marine, commercial multiple peril and surety lines. The reinstatement premiums represent the pro-rata reinsurance premium charged for reinstating the amount of reinsurance coverage utilized as a result of the incurred losses that are reimbursable under our reinsurance treaties.

Commercial Lines underwriting profit for the nine months ended September 30, 2018 was \$74.6 million, compared to an underwriting loss of \$14.7 million for the nine months ended September 30, 2017, a change of \$89.3 million. Catastrophe-related losses for the nine months ended September 30, 2018 were \$95.3 million, compared to \$141.1 million for the nine months ended September 30, 2017, a decrease of \$45.8 million. Favorable development on prior years' loss reserves for the nine months ended September 30, 2018 was \$18.1 million, compared to \$0.1 million for the nine months ended September 30, 2017.

Commercial Lines current accident year underwriting profit, excluding catastrophes, was \$151.8 million for the nine months ended September 30, 2018, compared to \$126.3 million for the nine months ended September 30, 2017. This \$25.5 million increase was primarily due to the favorable change in large loss-related reinsurance reinstatement premiums, lower expenses and earned premium growth, partially offset by higher non-catastrophe current accident year losses. The favorable change in reinsurance reinstatement premiums, net of ceding commissions, increased non-catastrophe current accident year underwriting profit by \$19.3 million compared to the prior period. The higher non-catastrophe current accident year losses were driven by large property loss activity in our commercial multiple peril line and higher loss activity in our commercial automobile liability lines, partially offset by lower loss activity in our AIX program business, within other commercial lines.

Personal Lines

Personal Lines net premiums written were \$1,329.4 million in the nine months ended September 30, 2018, compared to \$1,231.4 million in the nine months ended September 30, 2017, an increase of \$98.0 million. This was primarily due to higher renewal premium driven by rate increases and strong retention, as well as new business growth.

Table of Contents

Net premiums written in the personal automobile line of business for the nine months ended September 30, 2018 were \$847.1 million, compared to \$781.4 million for the nine months ended September 30, 2017, an increase of \$65.7 million. This was primarily due to rate increases and an increase in policies in force of 2.8%. Net premiums written in the homeowners line of business for the nine months ended September 30, 2018 were \$451.0 million, compared to \$421.1 million for the nine months ended September 30, 2017, an increase of \$29.9 million. This is attributable to rate increases and an increase in policies in force of 3.3%.

Personal Lines underwriting profit for the nine months ended September 30, 2018 was \$51.3 million, compared to \$61.5 million for the nine months ended September 30, 2017, a decline of \$10.2 million. Catastrophe losses for the nine months ended September 30, 2018 were \$73.9 million, compared to \$68.7 million for the nine months ended September 30, 2017, an increase of \$5.2 million. Unfavorable development on prior years' loss reserves for the nine months ended September 30, 2018 was \$17.9 million, compared to \$0.1 million for the nine months ended September 30, 2017.

Personal Lines current accident year underwriting profit, excluding catastrophes, was \$143.1 million in the nine months ended September 30, 2018, compared to \$130.3 million for the nine months ended September 30, 2017. This \$12.8 million improvement was primarily due to earned premium growth.

Other

Other operating loss was \$4.6 million for the nine months ended September 30, 2018, compared to \$7.0 million for the nine months ended September 30, 2017, a change of \$2.4 million.

Reserve for Losses and Loss Adjustment Expenses

The table below provides a reconciliation of the gross beginning and ending reserve for unpaid losses and loss adjustment expenses.

(in millions)	Nine Months Ended	
	September 30, 2018	September 30, 2017
Gross loss and LAE reserves, beginning of period	\$5,058.5	\$4,660.0
Reinsurance recoverable on unpaid losses	1,455.0	1,349.2
Net loss and LAE reserves, beginning of period	3,603.5	3,310.8
Net incurred losses and LAE in respect of losses occurring in:		
Current year	2,025.6	1,938.5
Prior year non-catastrophe loss development	0.7	0.9
Prior year catastrophe development	(7.8)	(1.2)
Total incurred losses and LAE	2,018.5	1,938.2
Net payments of losses and LAE in respect of losses		
occurring in:		
Current year	848.6	828.3
Prior years	997.3	859.8
Total payments	1,845.9	1,688.1

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Net reserve for losses and LAE, end of period	3,776.1	3,560.9
Reinsurance recoverable on unpaid losses	1,412.8	1,374.2
Gross reserve for losses and LAE, end of period	\$5,188.9	\$4,935.1

Table of Contents

The table below summarizes the gross reserve for losses and LAE by line of business.

	September 30, 2018	December 31, 2017
(in millions)		
Commercial multiple peril	\$ 1,070.8	\$ 1,012.5
Workers' compensation	658.9	628.3
Commercial automobile	387.5	380.2
Other commercial lines:		
AIX program business	470.6	475.4
Other	899.9	904.1
Total other commercial lines	1,370.5	1,379.5
Total Commercial Lines	3,487.7	3,400.5
Personal automobile	1,488.0	1,471.7
Homeowners and other personal	175.4	147.6
Total Personal	1,663.4	1,619.3
Total Other Segment	37.8	38.7
Total loss and LAE reserves	\$ 5,188.9	\$ 5,058.5

“Other commercial lines – Other” in the table above, is primarily comprised of monoline general liability, management and professional general liability, umbrella, surety, fidelity, marine, miscellaneous property, and healthcare lines. Loss and LAE reserves in our “Total Other Segment” relate to our run-off voluntary assumed reinsurance pools business. Also included in the above table, are \$57.9 million and \$59.4 million of asbestos and environmental reserves as of September 30, 2018 and December 31, 2017, respectively.

The following table summarizes prior year (favorable) unfavorable development for the periods indicated:

	Nine Months Ended September 30,					
	2018			2017		
	Loss	&		Loss	&	
(in millions)	LAE	Catastrophe	Total	LAE	Catastrophe	Total
Commercial Lines	\$(18.1)	\$ (7.6)	\$(25.7)	\$(0.1)	\$ (1.2)	\$(1.3)
Personal Lines	17.9	(0.2)	17.7	0.1	—	0.1
Other Segment	0.9	—	0.9	0.9	—	0.9
Total prior year (favorable) unfavorable development	\$0.7	\$ (7.8)	\$(7.1)	\$0.9	\$ (1.2)	\$(0.3)

It is not possible to know whether the factors that affected loss reserves in the first nine months of 2018 will also occur in future periods. We encourage you to read our Form 10-K for more information about our reserving process and the judgments, uncertainties and risks associated therewith.

Catastrophe Loss Development

In the nine months ended September 30, 2018 and 2017, favorable catastrophe development was \$7.8 million and \$1.2 million, respectively. The favorable catastrophe development during the nine months ended September 30, 2018 was driven by lower than expected losses related to the 2017 hurricanes and California wildfires. The favorable catastrophe development during the nine months ended September 30, 2017 was driven by lower than expected losses related to the 2016 hurricane Matthew.

2018 Loss and LAE Development, excluding catastrophes

For the nine months ended September 30, 2018, net unfavorable loss and LAE development, excluding catastrophes was \$0.7 million. Higher than expected losses in the commercial automobile line of \$13.2 million, driven by higher severity in the 2014, 2016 and 2017 accident years, the personal automobile line of \$9.6 million, driven by bodily injury severity in the 2016 accident year, and in our homeowners line of \$6.8 million, were substantially offset by lower than expected losses of \$14.2 million in workers' compensation, primarily related to the 2016 and 2017 accident years, and \$14.0 million in other commercial lines. Within other commercial lines, lower than expected losses in our professional and management liability and monoline general liability lines, primarily related to the 2014 through 2016 accident years, were partially offset by higher than expected losses in AIX programs and business classes which have since been terminated.

2017 Loss and LAE Development, excluding catastrophes

For the nine months ended September 30, 2017, net unfavorable loss and LAE development, excluding catastrophes, was \$0.9 million, primarily due to higher than expected losses in our runoff voluntary pools business.

Table of Contents

Investments

The investments discussion below excludes amounts relating to the discontinued operations of Chaucer.

Investment Results

Net investment income before income taxes was as follows:

(dollars in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Fixed maturities	\$55.3	\$51.4	\$161.3	\$152.9
Limited partnerships	4.7	5.8	17.8	11.8
Equity securities	4.3	4.1	12.8	13.4
Other investments	4.7	3.7	13.7	10.7
Investment expenses	(2.6)	(2.4)	(7.6)	(7.5)
Net investment income	\$66.4	\$62.6	\$198.0	\$181.3
Earned yield, fixed maturities	3.60%	3.70%	3.61 %	3.76 %
Earned yield, total portfolio	3.68%	3.83%	3.76 %	3.76 %

The increase in net investment income for the three and nine months ended September 30, 2018 was primarily due to the investment of higher operational cashflows, partially offset by the impact of new money yields that, while increasing from recent lower levels, are below that of average embedded investments. Also, net investment income included higher limited partnership income for the nine months ended September 30, 2018, and lower partnership income during the quarter.

Investment Portfolio

We held cash and investment assets diversified across several asset classes, as follows:

(dollars in millions)	September 30, 2018		December 31, 2017	
	Carrying Value	% of Total	Carrying Value	% of Total
Fixed maturities, at fair value	\$6,092.6	82.1 %	\$5,749.3	80.0 %
Equity securities, at fair value	574.8	7.8	576.2	8.0
Mortgage and other loans	394.4	5.3	365.8	5.1
Other investments	238.8	3.2	196.9	2.7
Cash and cash equivalents	117.9	1.6	297.9	4.2
Total cash and investments, excluding Chaucer	\$7,418.5	100.0	\$7,186.1	100.0

Cash and Investments

Total cash and investments, excluding investments held-for-sale, increased \$232.4 million, or 3.2%, for the nine months ended September 30, 2018, primarily due to operational cashflows and an \$85.0 million pre-signing dividend from Chaucer, partially offset by market value depreciation and the funding of financing activities, including dividend payments and stock repurchases.

42

Table of Contents

The following table provides information about the investment types of our fixed maturities portfolio:

(in millions)	September 30, 2018		Change in Net	
	Amortized Cost	Fair Value	Net Unrealized Gains (Losses)	Unrealized For the Year
Investment Type				
U.S. Treasury and government agencies	\$415.8	\$ 402.2	\$ (13.6)	\$ (13.8)
Foreign government	7.3	7.4	0.1	(0.2)
Municipals:				
Taxable	828.6	827.5	(1.1)	(24.6)
Tax-exempt	59.6	58.8	(0.8)	(1.2)
Corporate	3,429.6	3,373.8	(55.8)	(118.2)
Asset-backed:				
Residential mortgage-backed	731.8	707.1	(24.7)	(25.6)
Commercial mortgage-backed	645.1	630.5	(14.6)	(19.3)
Asset-backed	86.5	85.3	(1.2)	(1.0)
Total fixed maturities, excluding Chaucer	\$6,204.3	\$ 6,092.6	\$ (111.7)	\$ (203.9)

The decrease in net unrealized gains (losses) on fixed maturities was primarily due to higher prevailing interest rates and wider credit spreads.

Amortized cost and fair value by rating category were as follows:

(dollars in millions)	Rating Agency	September 30, 2018			December 31, 2017		
		Amortized Cost	Fair Value	% of Total	Amortized Cost	Fair Value	% of Total
NAIC Designation	Equivalent Designation	Cost	Value	Fair Value	Cost	Value	Fair Value
1	Aaa/Aa/A	\$4,253.1	\$4,170.1	68.4 %	\$3,745.9	\$3,798.0	66.1 %
2	Baa	1,642.6	1,609.9	26.4	1,594.4	1,623.0	28.2
3	Ba	160.7	163.3	2.7	159.7	166.8	2.9
4	B	131.6	132.8	2.2	149.1	153.3	2.7
5	Caa and lower	16.0	16.1	0.3	7.7	7.9	0.1
6	In or near default	0.3	0.4	—	0.3	0.3	—
Total fixed maturities, excluding Chaucer		\$6,204.3	\$6,092.6	100.0 %	\$5,657.1	\$5,749.3	100.0 %

Based on ratings by the National Association of Insurance Commissioners (“NAIC”), approximately 95% of the fixed maturity portfolio consisted of investment grade securities at September 30, 2018 and December 31, 2017. The quality of our fixed maturity portfolio remains strong based on ratings, capital structure position, support through guarantees, underlying security, issuer diversification and yield curve position.

Our investment portfolio primarily consists of fixed maturity securities whose fair value is susceptible to market risk, including interest rate changes. See also “Quantitative and Qualitative Disclosures about Market Risk” included in Management’s Discussion and Analysis of Financial Condition and Results of Operations contained in our 2017 Annual Report on Form 10-K. Duration is a measurement used to quantify our inherent interest rate risk and analyze invested assets relative to our reserve liabilities.

The duration of our fixed maturity portfolio was as follows:

(dollars in millions)	September 30, 2018			December 31, 2017		
	Amortized Cost	Fair Value	% of Total	Amortized Cost	Fair Value	% of Total
			Fair Value			Fair Value
Duration						
0-2 years	\$942.9	\$953.0	15.6 %	\$770.6	\$791.1	13.8 %
2-4 years	1,499.9	1,496.6	24.6	1,428.7	1,471.6	25.6
4-6 years	1,673.8	1,640.4	26.9	1,559.4	1,584.4	27.5
6-8 years	1,912.9	1,831.6	30.1	1,620.9	1,619.1	28.2
8-10 years	103.0	100.9	1.7	201.1	203.7	3.5
10+ years	71.8	70.1	1.1	76.4	79.4	1.4
Total fixed maturities, excluding Chaucer	\$6,204.3	\$6,092.6	100.0 %	\$5,657.1	\$5,749.3	100.0 %
Weighted average duration, excluding Chaucer		4.7			4.8	

Table of Contents

Our fixed maturity and equity securities are carried at fair value. Financial instruments whose value was determined using significant management judgment or estimation constituted less than 1% of the total assets we measured at fair value. See also Note 6 – “Fair Value” in the Notes to Interim Consolidated Financial Statements.

Equity securities primarily consist of U.S. income-oriented large capitalization common stocks and developed market equity index exchange-traded funds.

Mortgage and other loans consist primarily of commercial mortgage loan participations which represent our interest in commercial mortgage loans originated by a third party. We share, on a pro-rata basis, in all related cash flows of the underlying mortgage loans, which are investment-grade quality and diversified by geographic area and property type.

Other investments consist primarily of investments in private equity limited partnerships. Our investments in limited partnerships include interests in middle market mezzanine, private equity and credit funds.

Although we expect to invest new funds primarily in investment grade fixed maturities, we have invested, and expect to continue to invest, a portion of funds in limited partnerships, common equity securities, below investment grade fixed maturities and other investment assets.

Table of Contents

Other-than-Temporary Impairments

For the three months ended September 30, 2018, we recognized in earnings from continuing operations \$0.4 million of other-than-temporary impairments (“OTTI”) on corporate fixed maturity securities. For the nine months ended September 30, 2018, we recognized in earnings from continuing operations \$2.8 million of OTTI on corporate fixed maturity securities and other invested assets. For the three months ended September 30, 2017, we recognized in earnings from continuing operations \$1.3 million of OTTI, primarily on corporate fixed maturities. For the nine months ended September 30, 2017, we recognized in earnings from continuing operations \$4.5 million of OTTI, primarily on equity securities and corporate fixed maturities.

The carrying values of fixed maturity securities on non-accrual status at September 30, 2018 and December 31, 2017 were not material. The effects of non-accruals, compared with amounts that would have been recognized in accordance with the original terms of the fixed maturities for the nine months ended September 30, 2018 and 2017, were also not material. Any defaults in the fixed maturities portfolio in future periods may negatively affect investment income.

Unrealized Losses

Gross unrealized losses on fixed maturities at September 30, 2018 were \$158.9 million, an increase of \$120.5 million compared to December 31, 2017, primarily attributable to higher prevailing interest rates and wider credit spreads. At September 30, 2018, gross unrealized losses consisted primarily of \$86.4 million on corporate fixed maturities, \$40.9 million on residential and commercial mortgage-backed securities, \$15.6 million on municipal securities and \$14.8 million on U.S. government securities. See Note 5 – “Investments” in the Notes to Interim Consolidated Financial Statements.

We view gross unrealized losses on fixed maturities as temporary since it is our assessment that these securities will recover in the near term, allowing us to realize their anticipated long-term economic value. Further, we do not intend to sell, nor is it more likely than not we will be required to sell, such debt securities before this expected recovery of amortized cost (See also “Liquidity and Capital Resources” in Management’s Discussion and Analysis of Financial Condition and Results of Operations of this Form 10-Q). Inherent in our assessment are the risks that market factors may differ from our expectations; the global economy reverts to recessionary trends; we may decide to subsequently sell a security for unforeseen business needs; or changes in the credit assessment from our original assessment may lead us to determine that a sale at the current value would maximize recovery on such investments. To the extent that there are such adverse changes, an OTTI would be recognized as a realized loss. Although unrealized losses are not reflected in the results of financial operations until they are realized or deemed “other-than-temporary,” the fair value of the underlying investment, which does reflect the unrealized loss, is reflected in our Consolidated Balance Sheets.

The following table sets forth gross unrealized losses for fixed maturities by maturity period at September 30, 2018 and December 31, 2017. Actual maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations, with or without call or prepayment penalties, or we may have the right to put or sell the obligations back to the issuers.

	September	December
	30,	31,
	2018	2017
(in millions)		

Due in one year or less	\$ 0.2	\$ 0.1
Due after one year through five years	20.6	5.7
Due after five years through ten years	86.2	19.6
Due after ten years	9.8	5.3
	116.8	30.7
Mortgage-backed and asset-backed securities	42.1	7.7
Total fixed maturities, excluding Chaucer	\$ 158.9	\$ 38.4

As of January 1, 2018, we adopted ASC Update No. 2016-01, (Subtopic 825-10) Financial Instruments – Overall: Recognition and Measurement of Financial Assets and Financial Liabilities (“ASU No. 2016-01”), which resulted in a cumulative effect adjustment of \$97.8 million, net of tax, recorded to retained earnings. See Note 2 – “New Accounting Pronouncements” in the Notes to Interim Consolidated Financial Statements. Beginning in 2018, our equity securities are carried at fair value with increases and decreases in fair value recorded in net income. Previously, changes in fair value on equity securities were recorded in accumulated other comprehensive income, a component of shareholders’ equity.

Our investment portfolio and shareholders’ equity can be significantly impacted by changes in market values of our securities. Market volatility could increase and defaults on fixed income securities could occur. As a result, we could incur additional realized and unrealized losses in future periods, which could have a material adverse impact on our results of operations and/or financial position.

Table of Contents

Monetary policies in the developed economies, particularly in the United States, Europe and Japan, are supportive of moderate economic growth, while fiscal policies are more divergent and subject to change. Major central banks continue to closely monitor developments in global financial markets and the outlook for growth, and are committed to adjust monetary policy as required to provide liquidity, support growth and achieve inflation targets. In the United States, the Federal Reserve (the “Fed”) increased its target for the federal funds rate by 0.75% during 2018, including an increase of 0.25% in September 2018 and raised its range to 2.00% to 2.25%. The Fed expects that economic conditions will evolve in a manner that will warrant gradual increases in the federal funds rate and steady reductions in the size of its balance sheet. This is supported by its view that economic activity will expand at a moderate pace, labor conditions will remain strong and inflation will rise and stabilize around its 2 percent objective over the medium term. The Fed has communicated that the timing and size of future adjustments to the federal funds rate will depend on the realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation. While the Fed believes near-term risks to the economic outlook appear roughly balanced, it continues to closely monitor inflation indicators and global economic and financial developments. One such development being watched carefully is the trade/tariff negotiations between the United States and its various trade partners. Should these negotiations lead to a shift or break-down in global trade patterns, there could be negative implications for certain issuers, sectors, or the economy at large.

While the United States, Canada and the United Kingdom have reduced their extraordinary measures and begun to tighten monetary policy, other major central banks continue with their stimulus policies as they seek higher growth and confront inflation and inflation expectations running below target. The removal, modification or suggestion of changes in these policies could have an adverse effect on prevailing market interest rates and on issuers’ level of business activity or liquidity. Fundamental conditions in the corporate sector generally remain sound. While we may experience defaults on fixed income securities, particularly with respect to non-investment grade debt securities, it is difficult to foresee which issuers, industries or markets will be affected. As a result, the value of our fixed maturity portfolio could change rapidly in ways we cannot currently anticipate, and we could incur additional realized and unrealized losses in future periods.

Other Items

Net income also included the following items:

(in millions)	Three Months Ended September 30, 2018			
	Lines	Lines	Other	Total
2018				
Net realized and unrealized investment gains (losses)	\$ 16.5	\$ 6.6	\$(0.1)	\$ 23.0
Other non-operating items	—	—	(1.9)	(1.9)
2017				
Net realized and unrealized investment gains (losses)	\$ 9.8	\$ 4.2	\$(0.7)	\$ 13.3
Other non-operating items	(2.9)	(2.6)	—	(5.5)

Nine Months Ended September
30,
Commercial

(in millions)	Lines	Lines	Other	Total
2018				
Net realized and unrealized investment (losses) gains	\$3.5	\$ 1.8	\$(1.5)	\$3.8
Other non-operating items	—	—	(1.9)	(1.9)
2017				
Net realized and unrealized investment gains (losses)	\$17.5	\$ 8.0	\$(5.0)	\$20.5
Other non-operating items	(4.0)	(3.3)	—	(7.3)

We manage investment assets for our Commercial Lines, Personal Lines, and Other segments based on the requirements of our U.S. combined property and casualty companies. We allocate the investment income, expenses and net realized and unrealized investment gains and losses to our Commercial Lines, Personal Lines and Other segments based on actuarial information related to the underlying businesses.

Table of Contents

Net realized and unrealized gains on investments were \$23.0 million and \$13.3 million for the three months ended September 30, 2018 and 2017, respectively. Net realized and unrealized gains in 2018 were primarily due to changes in the fair value of equity securities of \$23.6 million that are now required to be reflected in net income, due to the implementation of ASU 2016-01 effective January 1, 2018. (See also Note 2 – “New Accounting Pronouncements” in the Notes to Interim Consolidated Financial Statements). Net realized gains in 2017 were primarily due to \$14.7 million of net gains recognized from the sale of equity securities and fixed maturities. These gains were partially offset by \$1.3 million of OTTI losses. During the three months ended September 30, 2017, there were net unrealized gains of \$7.9 million from our equity portfolio included in AOCI.

Net realized and unrealized gains on investments were \$3.8 million and \$20.5 million for the nine months ended September 30, 2018 and 2017, respectively. Net realized and unrealized losses in 2018 were primarily due to changes in the fair value of equity securities of \$6.7 million that are now required to be reflected in net income, due to the implementation of ASU 2016-01 effective January 1, 2018. (See also Note 2 – “New Accounting Pronouncements” in the Notes to Interim Consolidated Financial Statements). Net realized and unrealized gains in 2018 also included \$2.8 million of OTTI losses. Net realized gains in 2017 were primarily due to \$24.8 million of net gains recognized from the sale of equity securities and fixed maturities. These gains were partially offset by \$4.5 million of OTTI losses. During the nine months ended September 30, 2017, there were net unrealized gains of \$37.2 million from our equity portfolio included in AOCI.

Included in “other non-operating items” above for the three and nine months ended September 30, 2017 were \$5.5 million and \$7.3 million, respectively, of employee termination costs associated with a company-wide expense savings initiative.

Discontinued Chaucer Business

The following table summarizes the results of operations for Chaucer for the periods indicated:

(in millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenues				
Net premiums earned	\$212.4	\$222.5	\$648.2	\$632.4
Net investment income	12.8	13.4	41.7	37.1
Other income	1.9	2.7	5.4	5.0
	227.1	238.6	695.3	674.5
Losses and operating expenses				
Losses and LAE	137.0	221.7	364.3	431.7
Amortization of deferred acquisition costs	60.1	63.7	196.7	180.5
Other expenses	26.2	27.0	85.7	81.5
	223.3	312.4	646.7	693.7

Income (loss) from discontinued Chaucer business before				
income taxes and other items (previously presented as				
Chaucer's operating income (loss))	3.8	(73.8)	48.6	(19.2)
Other items:				
Interest expense	(1.5)	(0.8)	(2.8)	(2.4)
Net realized and unrealized investment gains (losses)	0.1	0.1	(0.4)	0.7
Expenses related to the anticipated sale of Chaucer	(6.9)	-	(8.7)	-
Other income (expense)	(0.2)	0.7	0.4	2.2
Income (loss) from discontinued Chaucer business	\$(4.7)	\$(73.8)	\$37.1	\$(18.7)
Loss and LAE ratio:				
Current accident year, excluding catastrophe losses	55.1 %	52.4 %	54.5 %	53.2 %
Prior accident year unfavorable (favorable) reserve				
development, excluding catastrophe losses	(5.0)%	(5.6)%	(4.6)%	(4.8)%
Current accident year catastrophe losses	16.2 %	56.2 %	8.2 %	22.1 %
Prior accident year favorable catastrophe loss development	(1.8)%	(3.4)%	(1.9)%	(2.2)%
Total loss and LAE ratio	64.5 %	99.6 %	56.2 %	68.3 %
Expense ratio	40.0 %	39.8 %	42.9 %	40.6 %
Combined ratio	104.5 %	139.4 %	99.1 %	108.9 %

Table of Contents

Three Months Ended September 30, 2018 Compared to Three Months Ended September 30, 2017

Chaucer's net premiums earned were \$212.4 million for the three months ended September 30, 2018, compared to \$222.5 million for the three months ended September 30, 2017. This decrease of \$10.1 million, or 4.5%, is primarily due to a planned increase in the use of ceded reinsurance, as a result of current market conditions.

Chaucer's loss before income taxes for the three months ended September 30, 2018 was \$4.7 million, compared to \$73.8 million for the three months ended September 30, 2017, an improvement of \$69.1 million. This improvement is primarily due to lower catastrophe losses. Catastrophe losses for the three months ended September 30, 2018 were \$30.6 million, compared to \$117.4 million for the three months ended September 30, 2017, a decrease of \$86.8 million. Chaucer's income before taxes, excluding catastrophes, was \$25.9 million for the three months ended September 30, 2018, compared to \$43.6 million for the three months ended September 30, 2017. This \$17.7 million decrease was primarily due to expenses related to the anticipated sale of Chaucer and to higher non-catastrophe current accident year losses.

Nine Months Ended September 30, 2018 Compared to Nine Months Ended September 30, 2017

Chaucer's net premiums earned were \$648.2 million for the nine months ended September 30, 2018, compared to \$632.4 million for the nine months ended September 30, 2017, an increase of \$15.8 million, or 2.5%. This was primarily due to new business growth in our casualty line, partially offset by a decline in our treaty line, and a planned increase in the use of ceded reinsurance, as a result of current market conditions.

Chaucer's income before income taxes for the nine months ended September 30, 2018 was \$37.1 million, compared to a loss of \$18.7 million for the nine months ended September 30, 2017, an improvement of \$55.8 million. This increase is primarily due to lower catastrophe losses. Catastrophe losses for the nine months ended September 30, 2018 were \$41.1 million, compared to \$125.9 million for the nine months ended September 30, 2017, a decrease of \$84.8 million. Chaucer's income before taxes, excluding catastrophes, was \$78.2 million in the nine months ended September 30, 2018, compared to \$107.2 million for the nine months ended September 30, 2017. This \$29.0 million decline was primarily due to higher expenses, including expenses related to the anticipated sale of Chaucer, and to higher non-catastrophe current accident year losses, partially offset by higher net investment income.

Reserve for Losses and Loss Adjustment Expenses

The table below provides a reconciliation of the gross beginning and ending reserve for unpaid losses and loss adjustment expenses for Chaucer:

(in millions)	Nine Months Ended September 30,	
	2018	2017
Gross loss and LAE reserves, beginning of period	\$2,686.5	\$2,289.4
Reinsurance recoverable on unpaid losses	1,153.4	925.6

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Net loss and LAE reserves, beginning of period	1,533.1	1,363.8
Net incurred losses and LAE in respect of losses occurring in:		
Current year non-catastrophe losses and LAE	353.1	336.2
Current year catastrophe losses and LAE	53.2	139.8
Prior year non-catastrophe loss development	(29.9)	(30.4)
Prior year catastrophe development	(12.1)	(13.9)
Total incurred losses and LAE	364.3	431.7
Net payments of losses and LAE in respect of losses		
occurring in:		
Current year	27.1	23.3
Prior years	306.7	271.7
Total payments	333.8	295.0
Effect of foreign exchange rate changes	(17.3)	40.3
Net reserve for losses and LAE, end of period	1,546.3	1,540.8
Reinsurance recoverable on unpaid losses	926.2	1,159.5
Gross reserve for losses and LAE, end of period	\$2,472.5	\$2,700.3

Table of Contents

Catastrophe Loss Development

In the nine months ended September 30, 2018 and 2017, favorable catastrophe development was \$12.1 million and \$13.9 million, respectively. The favorable catastrophe development during the nine months ended September 30, 2018 was primarily driven by lower than expected losses related to hurricane Harvey. The favorable catastrophe development during the nine months ended September 30, 2017 was driven by lower than expected losses related to numerous events, primarily in Chaucer's treaty line.

2018 Loss and LAE Development, excluding catastrophes

For the nine months ended September 30, 2018, net favorable loss and LAE development, excluding catastrophes was \$29.9 million, primarily due to lower than expected losses in Chaucer's marine, aviation and political lines of \$32.1 million and energy lines of \$15.5 million, partially offset by higher than expected losses of \$19.4 million in the casualty lines.

2017 Loss and LAE Development, excluding catastrophes

For the nine months ended September 30, 2017, net favorable loss and LAE development, excluding catastrophes, was \$30.4 million, primarily due to lower than expected losses in Chaucer's energy line of \$22.3 million and, to a lesser degree, in the political line.

Investment Portfolio

Chaucer held cash and investment assets diversified across several asset classes, as follows:

	September 30, 2018		December 31, 2017		
	Carrying Value	% of Total	Carrying Value	% of Total	
(dollars in millions)	Value	Carrying Value	Value	Carrying Value	
Fixed maturities, at fair value	\$1,806.9	87.8	%\$2,030.4	91.0	%
Other investments	116.5	5.7	123.1	5.5	
Cash and cash equivalents	133.4	6.5	78.5	3.5	
Total cash and investments	\$2,056.8	100.0	%\$2,232.0	100.0	%

Cash and Investments

Total cash and investments decreased \$175.2 million, or 7.8%, for the nine months ended September 30, 2018, primarily due to capital and financing activity and market value depreciation on fixed maturities, partially offset by operational cashflows. Capital and financing activities included a pre-signing dividend of \$85.0 million from Chaucer to THG and an approximate \$65 million repayment of related party debt.

Investment Results

Net investment income decreased \$0.6 million for the three months ended September 30, 2018 and increased \$4.6 million for the nine months ended September 30, 2018. The decrease in net investment income for the three months ended September 30, 2018 was primarily due to lower average invested assets and lower income on certain reinsurance contracts subject to deposit accounting, partially offset by the impact of higher new money yields. The increase in net investment income for the nine months ended September 30, 2018 was primarily due to the impact of higher new money yields and higher income on certain reinsurance contracts subject to deposit accounting, partially offset by lower average invested assets.

Earned yields on the investment portfolio were 2.21% and 2.19% for the three and nine months ended September 30, 2018, respectively, and 2.02% and 1.99% for the three and nine months ended September 30, 2017, respectively.

Income Taxes

We are subject to the tax laws and regulations of the U.S. and foreign countries in which we operate. We file a consolidated U.S. federal income tax return that includes the holding company and its U.S. subsidiaries. Generally, taxes are accrued at the U.S. statutory tax rate for income from the U.S. operations. In December 2017, the U.S. statutory rate decreased from 35% to 21%, effective January 1, 2018. Our primary non-U.S. jurisdiction is in the U.K. In November 2015, the U.K. statutory tax rate decreased from 20% to 19% effective April 1, 2017. A further decrease in the U.K. tax rate was enacted in September 2016 to reduce the U.K. statutory rate to 17% effective April 1, 2020. We accrue taxes on certain non-U.S. income that is subject to U.S. tax at the enacted U.S. tax rate. Foreign tax credits, where available, are utilized to offset U.S. tax as permitted.

Three Months Ended September 30, 2018 Compared to Three Months Ended September 30, 2017

The provision for income taxes from continuing operations was an expense of \$18.7 million and \$23.2 million in the three months ended September 30, 2018 and 2017, respectively. These provisions resulted in consolidated effective federal tax rates of 15.2% and 28.1% for the three months ended September 30, 2018 and 2017, respectively. These provisions reflect benefits related to tax planning strategies implemented in prior years of \$2.4 million and \$2.3 million during the three months ended September 30, 2018 and 2017,

Table of Contents

respectively. In addition, these provisions also included excess tax benefits related to stock-based compensation of \$0.3 million and \$1.7 million during the three months ended September 30, 2018 and 2017, respectively. The provision for the three months ended September 30, 2018 also included a tax benefit related to prior years of \$4.3 million, primarily due to a \$40.0 million contribution to our U.S. pension plan, in September 2018, for the 2017 plan year. Absent these items, the provision for income taxes would have been an expense of \$25.7 million or 20.9% and \$27.2 million or 32.9% for the three months ended September 30, 2018 and 2017, respectively. The decrease in the income tax rate for the three months ended September 30, 2018 is primarily driven by the aforementioned decrease in the U.S. statutory tax rate.

The income tax provision on operating income was an expense of \$16.7 million and \$22.9 million during the three months ended September 30, 2018 and 2017, respectively. These provisions resulted in effective tax rates for operating income of 16.4% and 30.6% for the three months ended September 30, 2018 and 2017, respectively. The 2018 provision included the aforementioned tax benefit related to prior years of \$4.3 million. In addition, these provisions also included excess tax benefits related to stock-based compensation of \$0.3 million and \$1.7 million during the three months ended September 30, 2018 and 2017, respectively. Absent these items, the provision for income taxes would have been an expense of \$21.3 million, or 21.0% and \$24.6 million or 32.8% for the three months ended September 30, 2018 and 2017, respectively. The decrease in the income tax rate for the three months ended September 30, 2018 is primarily affected by the aforementioned decrease in the U.S. statutory tax rate.

The income tax provision on discontinued Chaucer business resulted in a benefit of \$1.1 million and \$26.6 million during the three months ended September 30, 2018 and 2017, respectively. The provision for the three months ended September 30, 2018 reflects a benefit of \$1.4 million related to prior year's toll charge on previously untaxed foreign earnings. Absent this item, the provision for income taxes for the three months ended September 30, 2018 would have been an expense of \$0.3 million.

Nine Months Ended September 30, 2018 Compared to Nine Months Ended September 30, 2017

The provision for income taxes from continuing operations was an expense of \$44.5 million and \$53.4 million during the nine months ended September 30, 2018 and 2017, respectively. These provisions resulted in consolidated effective federal tax rates of 15.8% and 27.0% for the nine months ended September 30, 2018 and 2017, respectively. These provisions reflect benefits related to tax planning strategies implemented in prior years of \$8.2 million and \$8.7 million during the nine months ended September 30, 2018 and 2017, respectively. In addition, these provisions also included excess tax benefits related to stock-based compensation of \$2.1 million and \$4.2 million during the nine months ended September 30, 2018 and 2017, respectively. The provision for 2018 also included a tax benefit related to prior years of \$4.3 million, primarily due to our aforementioned pension contribution. Absent these items, the provision for income taxes would have been \$59.1 million or 21.0% and \$66.3 million or 33.6% for the nine months ended September 30, 2018 and 2017, respectively. The decrease in the income tax rate for the nine months ended September 30, 2018 is primarily driven by the aforementioned decrease in the U.S. statutory tax rate.

The income tax provision on operating income was an expense of \$52.3 million and \$57.6 million during the nine months ended September 30, 2018 and 2017, respectively. These provisions resulted in effective tax rates for operating income of 18.7% and 31.2% for the nine months ended September 30, 2018 and 2017, respectively. These provisions included the aforementioned excess tax benefits related to stock-based compensation of \$2.1 million and \$4.2 million during the nine months ended September 30, 2018 and 2017, respectively. In addition, the 2018 provision included a tax benefit related to prior years of \$4.3 million. Absent these items, the provision for income taxes would have been an expense of \$58.7 million, or 21.0% and \$61.8 million, or 33.5% for the nine months ended September 30, 2018 and 2017, respectively. The decrease in the income tax rate for the nine months ended September 30, 2018 is

primarily affected by the aforementioned decrease in the U.S. statutory tax rate.

The income tax provision on discontinued Chaucer business was an expense of \$6.6 million during the nine months ended September 30, 2018, compared to a benefit of \$10.4 million during the same period in 2017. The provision for the nine months ended September 30, 2018 reflects a benefit of \$1.4 million related to prior year's toll charge on previously untaxed foreign earnings. Absent this item, the provision for income taxes for the nine months ended September 30, 2018 would have been an expense of \$8.0 million.

Critical Accounting Estimates

Interim consolidated financial statements have been prepared in conformity with U.S. GAAP and include certain accounting policies that we consider to be critical due to the amount of judgment and uncertainty inherent in the application of those policies. While we believe that the amounts included in our consolidated financial statements reflect our best judgment, the use of different assumptions could produce materially different accounting estimates. As disclosed in our Annual Report on Form 10-K for the year ended, we believe the following accounting estimates are critical to our operations and require the most subjective and complex judgment:

- Reserve for losses and loss expenses
- Reinsurance recoverable balances
- Pension benefit obligations
- Other-than-temporary impairments on fixed maturity securities

50

Table of Contents

•Deferred tax assets

For a more detailed discussion of these critical accounting estimates, see our Annual Report on Form 10-K for the year ended December 31, 2017.

Statutory Surplus of U.S. Insurance Subsidiaries

The following table reflects statutory surplus for our U.S. insurance subsidiaries:

(in millions)	September 30, 2018	December 31, 2017
Total Statutory Capital and Surplus—U.S. Insurance Subsidiaries	\$ 2,171.2	\$ 2,077.1

The statutory capital and surplus for our U.S. insurance subsidiaries increased \$94.1 million during the first nine months of 2018. This increase was primarily due to profits from operations, partially offset by a \$140 million dividend paid by Hanover Insurance to THG in the second quarter of 2018.

The NAIC prescribes an annual calculation regarding risk based capital (“RBC”). RBC ratios for regulatory purposes are expressed as a percentage of the capital required to be above the Authorized Control Level (the “Regulatory Scale”); however, in the insurance industry, RBC ratios are widely expressed as a percentage of the Company Action Level. The following table reflects the Company Action Level, the Authorized Control Level and RBC ratios for Hanover Insurance (which includes Citizens and other U.S. insurance subsidiaries), as of September 30, 2018, expressed both on the Industry Scale (Total Adjusted Capital divided by the Company Action Level) and Regulatory Scale (Total Adjusted Capital divided by Authorized Control Level):

(dollars in millions)	Company Action Level	Authorized Control Level	RBC Ratio Industry Scale	RBC Ratio Regulatory Scale
The Hanover Insurance Company	\$ 1,028.7	\$ 514.3	210 %	420 %

Liquidity and Capital Resources

Liquidity is a measure of our ability to generate sufficient cash flows to meet the cash requirements of business operations. As a holding company, our primary ongoing source of cash is dividends from our insurance subsidiaries. However, dividend payments to us by our U.S. insurance subsidiaries are subject to limitations imposed by regulators, such as prior notice periods and the requirement that dividends in excess of a specified percentage of statutory surplus or prior year’s statutory earnings receive prior approval (so called “extraordinary dividends”). Dividends of \$140.0

million were paid to the holding company by Hanover Insurance in the second quarter of 2018.

A pre-signing dividend of \$85.0 million was paid to the holding company by Chaucer in the second quarter of 2018. In addition, in connection with an intercompany borrowing arrangement between Chaucer and a wholly owned non-insurance subsidiary of the holding company, interest on a \$300 million note is paid by Chaucer on a quarterly basis to this affiliate, which is ultimately available to provide dividends to the holding company. For the nine months ended September 30, 2018, Chaucer paid \$16.9 million of interest related to this note, of which \$16.6 million was then dividended to the holding company. For the nine months ended September 30, 2017, Chaucer paid \$15.1 million of interest related to this note, of which \$14.7 million was then dividended to the holding company.

However, in connection with the definitive agreement to sell Chaucer to China Re, the holding company has agreed not to take further dividends from Chaucer or its related companies and to arrange for the \$300 million intercompany note to be extinguished at closing. Payments received in respect of this note subsequent to April 1, 2018 are subject to the terms of the definitive agreement and some or all of an amount equal to such payments will be remitted to China Re at closing.

Sources of cash for our insurance subsidiaries primarily consist of premiums collected, investment income and maturing investments. Primary cash outflows are paid claims, losses and loss adjustment expenses, policy and contract acquisition expenses, other underwriting expenses and investment purchases. Cash outflows related to losses and loss adjustment expenses can be variable because of uncertainties surrounding settlement dates for liabilities for unpaid losses and because of the potential for large losses either individually or in the aggregate. We periodically adjust our investment policy to respond to changes in short-term and long-term cash requirements.

Net cash provided by operating activities was \$466.4 million during the first nine months of 2018, as compared to \$532.2 million during the first nine months of 2017. The \$65.8 million decrease in cash provided was primarily the result of higher loss payments during the first nine months of 2018 and a \$40 million contribution to our U.S. qualified defined benefit pension plan in September 2018, partially offset by higher net premiums collected during the first nine months of 2018.

Net cash used in investing activities was \$465.5 million during the first nine months of 2018, as compared to \$499.2 million during the first nine months of 2017. During 2018, cash used in investing activities primarily related to net purchases of fixed maturities, equity securities and other investments. During 2017, cash used in investing activities primarily related to net purchases of fixed maturities.

Table of Contents

Net cash used in financing activities was \$123.5 million during the first nine months of 2018, as compared to \$92.1 million during the first nine months of 2017. During 2018, cash used in financing activities primarily resulted from the payment of dividends to shareholders, repurchases of common stock and repayment of debt, partially offset by cash inflows related to option exercises. During 2017, cash used in financing activities primarily resulted from the payment of dividends to shareholders and repurchases of common stock, partially offset by cash inflows related to option exercises.

Dividends to common shareholders are subject to quarterly Board approval and declaration. During the first nine months of 2018, as declared by the Board, we paid three quarterly dividends, each for \$0.54 per share to our shareholders totaling \$69.1 million. We believe that our holding company assets are sufficient to provide for future shareholder dividends should the Board of Directors declare them.

At September 30, 2018, THG, as a holding company, held \$395.8 million of fixed maturities and cash. We believe our holding company assets will be sufficient to meet our current year obligations, which consist primarily of dividends to our shareholders (as and to the extent declared), interest on our senior and subordinated debentures and certain costs associated with benefits due to our former life employees and agents. As discussed below, we have, and opportunistically may continue to, repurchase our common stock and debt. We may decide to provide funds to the holding company for these or other opportunities through dividends or short-term intercompany lending arrangements.

We expect to continue to generate sufficient positive operating cash to meet all short-term and long-term cash requirements relating to current operations, including the funding of our qualified defined benefit pension plan. In September 2018, we contributed \$40.0 million to our U.S. qualified defined benefit pension plan. Subsequent to this contribution, we believe that this plan is essentially fully funded. The ultimate payment amounts for our benefit plan is based on several assumptions, including but not limited to, the rate of return on plan assets, the discount rate for benefit obligations, mortality experience, interest crediting rates, inflation and the ultimate valuation and determination of benefit obligations. Since differences between actual plan experience and our assumptions are almost certain, changes both positive and negative to our current funding status and ultimately our obligations in future periods are likely.

Our insurance subsidiaries maintain a high degree of liquidity within their respective investment portfolios in fixed maturity and short-term investments. We believe that the quality of the assets we hold will allow us to realize the long-term economic value of our portfolio, including securities that are currently in an unrealized loss position. We do not anticipate the need to sell these securities to meet our insurance subsidiaries' cash requirements since we expect our insurance subsidiaries to generate sufficient operating cash to meet all short-term and long-term cash requirements relating to current operations. However, there can be no assurance that unforeseen business needs or other items will not occur, causing us to sell those securities in a loss position before their values fully recover, thereby recognizing impairment charges in that time period.

Our Board of Directors has authorized aggregate repurchases of our common stock of up to \$900 million. Under the repurchase authorizations, the Company may repurchase, from time to time, common shares in amounts, at prices and at such times as the Company deems appropriate, subject to market conditions and other considerations. Repurchases may be executed using open market purchases, privately negotiated transactions, accelerated repurchase programs or other transactions. We are not required to purchase any specific number of shares or to make purchases by any certain date under this program. During the first nine months of 2018, we repurchased approximately 0.4 million shares of our common stock at a cost of \$44.2 million. As of September 30, 2018, we have approximately \$102 million available for repurchases under these repurchase authorizations.

From time to time, we may repurchase our debt on an opportunistic basis. During the third quarter of 2018, we repurchased senior debentures with a net carrying value of \$9.6 million at a cost of \$11.5 million, resulting in a loss of \$1.9 million.

We have a \$200.0 million credit agreement which expires in May 2019, with an option to increase the facility to \$300.0 million assuming no default and satisfaction of certain other conditions. Borrowings, if any, under the agreement are unsecured and incur interest at a rate per annum equal to, the higher of (a) the prime commercial lending rate of the administrative agent, (b) the Federal Funds Rate plus half a percent, or (c) the one month Adjusted LIBOR plus one percent and any applicable margin. The agreement contains financial covenants including, but not limited to, maintaining at least specified levels of consolidated equity and leverage ratios, and requires certain of our subsidiaries to maintain minimum RBC ratios. We had no borrowings under this agreement during the first nine months of 2018.

Membership in FHLBB provides us with access to additional liquidity based on our stock holdings and pledged collateral. At September 30, 2018, we had additional borrowing capacity of \$89.8 million through an FHLBB short-term facility. There were \$2.0 million of outstanding borrowings under this facility at September 30, 2018, which is included in expenses and taxes payable in our consolidated balance sheet.

Table of Contents

On October 27, 2017, Chaucer entered into a Standby Letter of Credit Facility Agreement (the “Facility Agreement”), not to exceed £220.0 million (or \$286.8 million) outstanding at any one time, with the option to increase the amount available for issuances of letters of credit to £300.0 million (or \$391.1 million) in the aggregate on one occasion only during the term of the Facility Agreement (subject to the consent of all lenders and assuming no default and satisfaction of other specified conditions). The Facility Agreement contains certain covenants including, but not limited to, the syndicates’ financial condition. The Facility Agreement provides regulatory capital supporting Chaucer’s underwriting activities for the 2018 and 2019 years of account and each prior open year of account.

The Facility Agreement is subject to a letter of credit commission fee on outstanding letters of credit, which is payable quarterly. The Facility Agreement fee ranges from 0.90% to 1.50% per annum, depending on our credit ratings for portions that are not cash collateralized, 0.25% per annum for portions that are cash collateralized, and 0.40% per annum for portions that are cash-equivalent collateralized. In addition to the commission fee on the uncollateralized outstanding letter of credit, a commitment fee in respect of the unutilized commitments under the Facility Agreement is payable quarterly, and ranges from 0.315% to 0.525% per annum, depending on our credit ratings. Chaucer is also required to pay customary agency fees which totaled \$2.8 million and \$2.4 million during the first nine months of 2018 and 2017, respectively.

Simultaneous with the Facility Agreement, the holding company entered into a Guaranty Agreement (the “Guaranty Agreement”) with Lloyds Bank plc, as Facility Agent and Security Agent, pursuant to which we unconditionally guarantee the obligations of Chaucer under the Facility Agreement. The Guaranty Agreement contains financial covenants that require us to maintain a minimum net worth and a maximum leverage ratio, and negative covenants that limit our ability, among other things, to incur or assume certain debt, grant liens on our property, merge or consolidate, dispose of assets, materially change the nature or conduct of our business and make restricted payments. The Guaranty Agreement also contains certain customary representations and warranties. The Facility Agreement will be replaced and the Guaranty Agreement released in connection with the sale of Chaucer to China Re.

For a discussion of our outstanding debt agreements, see Note 6 – “Debt and Credit Arrangements” in the Notes to Consolidated Financial Statements included in Financial Statements and Supplementary Data in our Annual Report on Form 10-K for the year ended December 31, 2017.

At September 30, 2018, we were in compliance with the covenants of our debt and credit agreements.

Off-Balance Sheet Arrangements

We currently do not have any material off-balance sheet arrangements that are reasonably likely to have an effect on our financial position, revenues, expenses, results of operations, liquidity, capital expenditures, or capital resources.

Contingencies and Regulatory Matters

Information regarding litigation, legal contingencies and regulatory matters appears in Part I – Note 13 “Commitments and Contingencies” in the Notes to Interim Consolidated Financial Statements.

Risks and Forward-Looking Statements

Information regarding risk factors and forward-looking information appears in Part II – Item 1A of this Quarterly Report on Form 10-Q and in Part I – Item 1A of our Annual Report on Form 10-K for the fiscal year ended. This Management’s Discussion and Analysis should be read and interpreted in light of such factors.

Table of Contents

ITEM 3

QUANTITATIVE AND QUALITATIVE DISCLOSURES

ABOUT MARKET RISK

Our market risks, the ways we manage them, and sensitivity to changes in interest rates, equity price risk, and foreign currency exchange risk are summarized in Management's Discussion and Analysis of Financial Condition and Results of Operations as of December 31, 2017, included in our Annual Report on Form 10-K for the year ended December 31, 2017. There have been no material changes in the first nine months of 2018 to these risks or our management of them.

ITEM 4

CONTROLS AND PROCEDURES

Disclosure Controls and Procedures Evaluation

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Limitations on the Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, do not expect that our disclosure controls over financial reporting will prevent all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Based on our controls evaluation, our Chief Executive Officer and Chief Financial Officer concluded that as of the end of the period covered by this quarterly report, our disclosure controls and procedures were effective to provide reasonable assurance that (i) the information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) material information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and the Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting, as required by Rule 13a-15(d) of the Exchange Act, to determine whether any changes occurred during the period covered by this quarterly report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that there were no such changes during the quarter ended September 30, 2018, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

PART II – OTHER INFORMATION

ITEM 1 – LEGAL PROCEEDINGS

Reference is made to the litigation matter captioned “Durand Litigation” under “Commitments and Contingencies – Legal Proceedings” in Note 13 in the Notes to Interim Consolidated Financial Statements.

ITEM 1A – RISK FACTORS

This document contains, and management may make, certain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, may be forward-looking statements. When used in our Management’s Discussion and Analysis, the words: “believes”, “anticipates”, “expects”, “projections”, “outlook”, “should”, “could”, “plan”, “guidance”, “likely”, “on track to”, “targeted” and expressions are intended to identify forward-looking statements. We caution readers that accuracy with respect to forward-looking projections is difficult and risks and uncertainties, in some cases, have affected, and in the future could affect, our actual results and could cause our actual results for the remainder of 2018 and beyond to differ materially from historical results and from those expressed in any of our forward-looking statements. We operate in a business environment that is continually changing, and as such, new risk factors may emerge over time. Additionally, our business is conducted in competitive markets and, therefore, involves a higher degree of risk. We cannot predict these new risk factors nor can we assess the impact, if any, that they may have on our business in the future. Some of the factors that could cause actual results to differ include, but are not limited to, the following:

- changes in the demand for our products;
- risks and uncertainties with respect to our ability to retain profitable policies in force and attract profitable policies and to increase rates commensurate with, or in excess of, loss trends;
- changes in our estimates of loss and loss adjustment expense reserves, including with respect to catastrophes, which may result in lower current year underwriting income or adverse loss development, and could impact our carried reserves;
- uncertainties with respect to the long-term profitability of our products, including with respect to new products such as our Hanover Platinum Personal Lines, excess and surplus lines, or longer-tail products covering casualty losses;
- changes in frequency and loss severity trends;
- changes in regulation, economic, market and political conditions, particularly with respect to regions where we have geographical concentrations;
- volatile and unpredictable developments, including severe weather and other natural physical events, catastrophes and terrorist actions;
- changes in weather patterns, whether as a result of global climate change, or otherwise, causing a higher level of losses from weather events to persist;
- the availability of sufficient information to accurately estimate a loss at a point in time;
- risks and uncertainties with respect to our ability to collect all amounts due from reinsurers and to maintain current levels of reinsurance in the future at commercially reasonable rates, or at all;
- heightened volatility, fluctuations in interest rates (which have a significant impact on the market value of our investment portfolio and thus our book value), inflationary pressures, default rates and other factors that affect investment returns from our investment portfolio;
- fluctuations in currencies which affect the values of financial information converted from an originating currency to our reporting currency;

- risks and uncertainties associated with our participation in shared market mechanisms, mandatory reinsurance programs and mandatory and voluntary pooling arrangements;
- an increase in mandatory assessments by state guaranty funds;
 - actions by our competitors, many of which are larger or have greater financial resources than we do;
- loss or retirement of key employees;

55

Table of Contents

- operating difficulties and other unintended consequences from acquisitions and integration of acquired businesses, the introduction of new products and related technology changes and new operating models;
- changes in our claims-paying and financial strength ratings;
- negative changes in our level of statutory surplus;
- risks and uncertainties with respect to our growth or operating strategies, or with respect to our expense and strategic initiatives;
- our ability to declare and pay dividends;
- changes in accounting principles and related financial reporting requirements;
- errors or omissions in connection with the administration of any of our products;
- risks and uncertainties with technology, including cloud-based data information storage, data security, and/or outsourcing relationships and third-party operations and data security that may negatively impact our ability to conduct business;
- an inability to be compliant with recently implemented regulations or existing regulation such as those relating to Sarbanes-Oxley;
- unfavorable judicial or legislative developments;
- risks and uncertainties associated with THG's announcement that it has entered into an agreement for the sale of Chaucer to China Reinsurance (Group) Corporation, including risks that:
 - o China Reinsurance (Group) Corporation will not obtain the requisite shareholder approval or that the parties will not obtain the requisite regulatory and other approvals for the transaction or that other conditions to which the transaction is subject may not be satisfied, or that the parties will otherwise fail to consummate the transaction;
 - o THG may not realize all of the contingent consideration in the transaction due to Chaucer catastrophe losses occurring during 2018, which require the reduction of the contingent consideration on a dollar-for-dollar basis;
 - o financial strength or debt credit rating services will reduce their outlooks or ratings for THG as a result of the transaction; and
 - o the potential for management distraction.
- should the expected sale of Chaucer not be consummated, risks and uncertainties related to Chaucer's business, including regulation of the Lloyd's market, compliance with regulations such as Solvency II, business and employee retention concerns, increases in mandatory assessments by Lloyd's Central Fund, and the effect of the Brexit referendum and related consequences on (i) Chaucer's licensing permissions in European Union member states if Lloyd's does not obtain alternative licensing permissions; (ii) market conditions in the U.K. and the European market; and (iii) foreign exchange volatility; and
- other factors described in such forward-looking statements.

In addition, historical and future reported financial results include estimates with respect to premiums written and earned, reinsurance recoverables, current accident year "picks," loss and loss adjustment reserves and development, fair values of certain investments, other assets and liabilities, tax, contingent and other liabilities, and other items. These estimates are subject to change as more information becomes available.

Under the foreign sanctions regimes established by the United States, Chaucer, as a non-U.S. subsidiary of THG, is permitted to engage in certain transactions which would be prohibited if engaged in by U.S. citizens or persons acting within the jurisdiction of the U.S., including our U.S. subsidiaries. Under the Joint Comprehensive Plan of Action Regarding Iran's Nuclear Program (the "JCPOA") and General License H issued by the U.S. Treasury Department's Office of Foreign Assets Control, Chaucer, as a foreign subsidiary, previously was permitted to conduct business involving Iran and Iranian assets, subject to limitations and prescriptions. On May 8, 2018, President Donald Trump announced the decision for the United States to cease participation in the JCPOA. Consequently, subject to specified "wind-down" periods, General License H is being withdrawn and Chaucer will no longer be able to engage in previously permitted transactions with or involving Iran. However, prior to such announcement, Chaucer entered into a transaction in compliance with General License H and the following disclosure about such transaction is provided

pursuant to Section 13(r) of the Securities Exchange Act of 1934, as amended:

56

Table of Contents

During the applicable reporting period, January 1 through September 30, 2018, Chaucer syndicate 1084 maintained a 5% participation in an aviation reinsurance arrangement to reinsure Bimeh Iran (“Iran Insurance Company”), an insurer wholly-owned by the Government of Iran. The arrangement reinsures the hull, liability and cargo risks incurred by the underlying insured, Iran Air. Bimeh Markazi, another insurer wholly-owned by the Government of Iran, was an additional reinsured. This reinsurance arrangement, which was in effect for the period June 22, 2017 through June 21, 2018, was compliant with General License H. The insuring language of the reinsurance arrangement contained a “sanctions exclusion” clause which would terminate coverage in the event Chaucer was not permitted to provide coverage under applicable law, including any subsequent changes in U.S., U.K. or other laws or regulations which would make continuation of such coverage non-compliant. Estimated total gross revenues from this arrangement were approximately \$275,000, and total revenues, net of brokerage expenses and estimated retrocession costs, were approximately \$179,500. It is not possible at this time to determine the net profit from the arrangement, although as of September 30, 2018, no claims have been paid by Chaucer to either of the reinsureds. The agreement expired on June 21, 2018 and was not renewed. As a result of the withdrawal of the United States from participation in the JCPOA and the subsequent revocation of General License H, Chaucer, so long as it is a subsidiary of the Company, does not intend to enter into other such transactions in the future.

For a more detailed discussion of our risks and uncertainties, see also Item 1A – Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2017.

Table of Contents

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

Issuer Purchases of Equity Securities

Shares purchased in the third quarter of 2018 are as follows:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet be Purchased Under the Plans or Programs (in millions)
July 1 - 31, 2018 ⁽¹⁾	17,289	\$ 122.13	16,849	\$ 119
August 1 - 31, 2018	24,624	124.28	24,624	116
September 1 - 30, 2018 ⁽¹⁾	115,925	118.29	115,909	102
Total	157,838	\$ 119.65	157,382	\$ 102

- (1) Includes 440 and 16 shares withheld to satisfy tax withholding amounts due from employees related to the receipt of stock which resulted from the exercise or vesting of equity awards for the months ended July 31 and September 30, 2018, respectively.

Table of Contents

ITEM 6 – EXHIBITS

EX – Agreement for the Sale and Purchase of Shares in the Capital of The Hanover Insurance International Holdings Limited, Chaucer Insurance Company Designated Activity Company and Hanover Australia HoldCo Pty Ltd., dated September 13, 2018, by and among the Registrant and China Reinsurance (Group) Corporation.

EX – Waiver, dated September 11, 2018, among the Registrant and Lloyds Bank plc, as facility agent and as security agent.

EX – Amendment No. 2, dated September 11, 2018, to Credit Agreement, dated November 12, 2013, among the Registrant, the financial institutions party thereto and JPMorgan Chase Bank, N.A., as administrative agent.

EX – Certification of the Chief Executive Officer, pursuant to 15 U.S.C. 78m, 78o(d), as adopted pursuant to section 302 of the Sarbanes-Oxley Act of 2002.

EX – Certification of the Chief Financial Officer, pursuant to 15 U.S.C. 78m, 78o(d), as adopted pursuant to section 302 of the Sarbanes-Oxley Act of 2002.

EX – Certification of the Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002.

EX – Certification of the Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002.

EX – The following materials from The Hanover Insurance Group, Inc.’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2018 formatted in eXtensible Business Reporting Language (“XBRL”): (i) Consolidated Statements of Income for the three and nine months ended September 30, 2018 and 2017; (ii) Consolidated Statements of Comprehensive Income for the three and nine months ended September 30, 2018 and 2017; (iii) Consolidated Balance Sheets at September 30, 2018 and December 31, 2017; (iv) Consolidated Statements of Shareholders’ Equity for the nine months ended September 30, 2018 and 2017; (v) Consolidated Statements of Cash Flows for the nine months ended September 30, 2018 and 2017, and (vi) related notes to these financial statements.

Table of Contents

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.

The Hanover Insurance Group, Inc.
Registrant

November 1, 2018 /s/ John C. Roche
Date John C. Roche
President, Chief Executive Officer and Director

November 1, 2018 /s/ Jeffrey M. Farber
Date Jeffrey M. Farber
Executive Vice President and Chief Financial Officer