

## Section 1: 10-Q (10-Q)

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

**Form 10-Q**

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

For the Quarterly Period Ended September 30, 2017

Or

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

Commission file number 001-31909

**ASPEN INSURANCE HOLDINGS LIMITED**

(Exact Name of Registrant as Specified in its Charter)

**Bermuda**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**141 Front Street  
Hamilton, Bermuda**  
(Address of Principal Executive Offices)

Not Applicable  
(I.R.S. Employer  
Identification No.)

**HM 19**  
(Zip Code)

**Registrant's telephone number, including area code  
(441) 295-8201**

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 periods 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting 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. (Check one):

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

As at September 30, 2017, there were 59,407,323 outstanding ordinary shares, with a par value of 0.15144558¢ per ordinary share, outstanding.

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**PART I**  
**FINANCIAL INFORMATION**

**Item 1. Unaudited Condensed Consolidated Financial Statements**

**ASPEN INSURANCE HOLDINGS LIMITED**

**UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS**

**As at September 30, 2017 and December 31, 2016**  
**(\$ in millions, except share and per share amounts)**

	<u>As at September 30, 2017</u>	<u>As at December 31, 2016</u>
<b>ASSETS</b>		
Investments:		
Fixed income securities, available for sale at fair value (amortized cost — \$5,305.7 and \$5,620.1)	\$ 5,365.4	\$ 5,664.6
Fixed income securities, trading at fair value (amortized cost — \$1,642.4 and \$1,264.8)	1,665.0	1,265.7
Equity securities, trading at fair value (cost — \$407.2 and \$554.3)	468.6	584.7
Short-term investments, available for sale at fair value (amortized cost — \$34.4 and \$145.3)	34.4	145.3
Short-term investments, trading at fair value (amortized cost — \$90.3 and \$185.4)	90.3	185.4
Catastrophe bonds, trading at fair value (cost — \$33.5 and \$42.5)	30.3	42.5
Other investments, equity method	4.0	12.1
Total investments	7,658.0	7,900.3
Cash and cash equivalents (including \$164.2 and \$291.3 within consolidated variable interest entities)	1,209.3	1,273.8
Reinsurance recoverables		
Unpaid losses	1,369.5	560.7
Ceded unearned premiums	446.4	255.2
Receivables		
Underwriting premiums	1,529.0	1,399.4
Other	175.8	95.5
Funds withheld	100.1	73.1
Deferred policy acquisition costs	354.1	358.4
Derivatives at fair value	8.4	7.2
Receivables for securities sold	19.0	1.6
Office properties and equipment	89.8	83.8
Tax recoverable	13.1	0.5
Other assets	1.0	1.0
Intangible assets and goodwill	78.1	79.6
Total assets	<u>\$ 13,051.6</u>	<u>\$ 12,090.1</u>

See accompanying notes to unaudited condensed consolidated financial statements.

**ASPEN INSURANCE HOLDINGS LIMITED**  
**UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS**  
**As at September 30, 2017 and December 31, 2016**  
(\$ in millions, except share and per share amounts)

	<u>As at September 30, 2017</u>	<u>As at December 31, 2016</u>
<b>LIABILITIES</b>		
<b>Insurance reserves</b>		
Losses and loss adjustment expenses	\$ 6,490.6	\$ 5,319.9
Unearned premiums	1,926.5	1,618.6
Total insurance reserves	8,417.1	6,938.5
<b>Payables</b>		
Reinsurance premiums	439.4	345.3
Deferred taxation	0.5	6.1
Accrued expenses and other payables	377.9	469.2
Liabilities under derivative contracts	2.9	18.4
Total payables	820.7	839.0
Loan notes issued by variable interest entities, at fair value	101.5	115.0
Long-term debt	549.4	549.3
Total liabilities	<u>\$ 9,888.7</u>	<u>\$ 8,441.8</u>
Commitments and contingent liabilities (see Note 16)	—	—
<b>SHAREHOLDERS' EQUITY</b>		
<b>Ordinary shares:</b>		
59,407,323 shares of par value 0.15144558¢ each (December 31, 2016 - 59,774,464)	\$ 0.1	\$ 0.1
<b>Preference shares:</b>		
11,000,000 5.95% shares of par value 0.15144558¢ each (December 31, 2016 — 11,000,000)	—	—
Nil 7.401% shares of par value 0.15144558¢ each (December 31, 2016 — 5,327,500)	—	—
Nil 7.250% shares of par value 0.15144558¢ each (December 31, 2016 — 6,400,000)	—	—
10,000,000 5.625% shares of par value 0.15144558¢ each (December 31, 2016 — 10,000,000)	—	—
Non-controlling interest	2.2	1.4
Additional paid-in capital	951.8	1,259.6
Retained earnings	2,234.1	2,392.3
Accumulated other comprehensive income, net of taxes	(25.3)	(5.1)
Total shareholders' equity	<u>3,162.9</u>	<u>3,648.3</u>
Total liabilities and shareholders' equity	<u>\$ 13,051.6</u>	<u>\$ 12,090.1</u>

See accompanying notes to unaudited condensed consolidated financial statements.

**ASPEN INSURANCE HOLDINGS LIMITED**

**UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS  
AND OTHER COMPREHENSIVE INCOME  
(\$ in millions, except share and per share amounts)**

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
<b>Revenues</b>				
Net earned premium	\$ 652.5	\$ 681.0	\$ 1,795.6	\$ 2,024.9
Net investment income	46.4	46.4	141.5	143.9
Realized and unrealized investment gains	29.9	26.7	130.1	137.4
Other income	(2.2)	1.5	5.0	2.4
Total revenues	726.6	755.6	2,072.2	2,308.6
<b>Expenses</b>				
Losses and loss adjustment expenses	776.2	389.2	1,450.5	1,188.8
Amortization of deferred policy acquisition costs	105.4	130.9	315.4	387.8
General, administrative and corporate expenses	110.9	125.0	352.1	361.2
Interest on long-term debt	7.4	7.3	22.2	22.1
Change in fair value of derivatives	(4.5)	(0.6)	(25.2)	7.0
Change in fair value of loan notes issued by variable interest entities	(9.8)	9.8	(3.6)	13.7
Realized and unrealized investment losses	12.4	5.2	24.4	34.1
Net realized and unrealized foreign exchange (gains)/losses	(8.4)	(10.8)	21.1	10.2
Other (income)/expenses	—	(0.9)	2.0	0.1
Total expenses	989.6	655.1	2,158.9	2,025.0
(Loss)/income from operations before income tax	(263.0)	100.5	(86.7)	283.6
Income tax credit/(expense)	9.2	(4.9)	5.2	(8.7)
Net (loss)/income	\$ (253.8)	\$ 95.6	\$ (81.5)	\$ 274.9
Amount attributable to non-controlling interest	(0.6)	0.2	(0.8)	—
<b>Net (loss)/income attributable to Aspen Insurance Holdings Limited's ordinary shareholders</b>	<b>\$ (254.4)</b>	<b>\$ 95.8</b>	<b>\$ (82.3)</b>	<b>\$ 274.9</b>
<b>Other Comprehensive (Loss)/Income:</b>				
Available for sale investments:				
Reclassification adjustment for net realized gains on investments included in net income	\$ (1.0)	\$ (4.4)	\$ (2.8)	\$ (9.7)
Change in net unrealized gains/losses on available for sale securities held	1.3	(18.8)	18.0	113.7
Net change from current period hedged transactions	(0.4)	3.1	3.3	(1.9)
Change in foreign currency translation adjustment	(4.9)	(10.2)	(49.7)	(26.8)
Other comprehensive (loss)/income, gross of tax	(5.0)	(30.3)	(31.2)	75.3
Tax thereon:				
Reclassification adjustment for net realized gains on investments included in net income	0.2	—	0.4	0.6
Change in net unrealized gains on available for sale securities held	(0.6)	2.0	(1.8)	(11.7)
Net change from current period hedged transactions	—	(0.6)	(0.5)	0.6
Change in foreign currency translation adjustment	2.3	3.7	12.9	7.5
Total tax on other comprehensive income	1.9	5.1	11.0	(3.0)
Other comprehensive (loss)/income net of tax	(3.1)	(25.2)	(20.2)	72.3
<b>Total comprehensive (loss)/income attributable to Aspen Insurance Holdings Limited's ordinary shareholders</b>	<b>\$ (257.5)</b>	<b>\$ 70.6</b>	<b>\$ (102.5)</b>	<b>\$ 347.2</b>
<b>Per Share Data</b>				
Weighted average number of ordinary share and share equivalents <sup>(1)</sup>				
Basic	59,759,730	60,225,705	59,862,540	60,588,307
Diluted	59,759,730	61,577,018	59,862,540	62,043,440
Basic (loss)/earnings per ordinary share adjusted for preference share dividends	\$ (4.48)	\$ 1.43	\$ (1.99)	\$ 4.07
Diluted (loss)/earnings per ordinary share adjusted for preference share dividends	\$ (4.48)	\$ 1.40	\$ (1.99)	\$ 3.97

(1) The basic and diluted number of ordinary shares for the three and nine months ended September 30, 2017 is the same as the inclusion of dilutive securities in a loss

making period would be anti-dilutive.

See accompanying notes to unaudited condensed consolidated financial statements.

**ASPEN INSURANCE HOLDINGS LIMITED**  
**UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF**  
**CHANGES IN SHAREHOLDERS' EQUITY**  
(\$ in millions)

	Nine Months Ended September 30,	
	2017	2016
<b>Ordinary shares</b>		
Beginning and end of the period	\$ 0.1	\$ 0.1
<b>Preference shares</b>		
Beginning and end of the period	—	—
<b>Non-controlling interest</b>		
Beginning of the period	1.4	1.3
Net change attributable to non-controlling interest for the period	0.8	—
End of the period	2.2	1.3
<b>Additional paid-in capital</b>		
Beginning of the period	1,259.6	1,075.3
New ordinary shares issued	0.4	2.0
Ordinary shares repurchased and cancelled	(30.0)	(50.0)
Preference shares issued	—	241.3
Preference shares redeemed and cancelled	(293.2)	—
Preference shares redemption costs <sup>(1)</sup>	8.0	—
Share-based compensation <sup>(2)</sup>	7.0	11.6
End of the period	951.8	1,280.2
<b>Retained earnings</b>		
Beginning of the period	2,392.3	2,283.6
Net (loss)/income for the period	(81.5)	274.9
Dividends on ordinary shares	(42.0)	(39.5)
Dividends on preference shares	(28.7)	(28.4)
Preference shares redemption costs <sup>(1)</sup>	(8.0)	—
Net change attributable to non-controlling interest for the period	(0.8)	—
Share-based payment <sup>(3)</sup>	2.8	—
End of the period	2,234.1	2,490.6
<b>Accumulated other comprehensive income:</b>		
<b>Cumulative foreign currency translation adjustments, net of taxes:</b>		
Beginning of the period	(27.1)	0.6
Change for the period, net of income tax	(36.8)	(19.3)
End of the period	(63.9)	(18.7)
<b>Loss on derivatives, net of taxes:</b>		
Beginning of the period	(0.5)	(1.2)
Net change from current period hedged transactions	2.8	(1.3)
End of the period	2.3	(2.5)
<b>Unrealized appreciation on investments, net of taxes:</b>		
Beginning of the period	22.5	60.2
Change for the period, net of taxes	13.8	92.9
End of the period	36.3	153.1
<b>Total accumulated other comprehensive (loss)/income, net of taxes</b>	<b>(25.3)</b>	<b>131.9</b>
<b>Total shareholders' equity</b>	<b>\$ 3,162.9</b>	<b>\$ 3,904.1</b>

(1) The \$8.0 million reclassification from additional paid-in capital to retained earnings is the difference between the capital raised upon issuance of the 7.401% and the 7.250% Perpetual Non-Cumulative Preference Shares, net of issuance costs, and the total redemption costs of \$293.2 million.

(2) The balance in 2017 includes \$7.9 million reclassification from accrued expenses and other payable as a result of the classification of restricted share units as equity following the adoption of ASU 2016-09.

(3) The \$2.8 million relates to the cumulative effect-adjustment to opening retained earnings as a result of the classification of restricted share units as equity following the



adoption of ASU 2016-09. The adjustment has been applied using a modified retrospective approach.

See accompanying notes to unaudited condensed consolidated financial statements.

ASPEN INSURANCE HOLDINGS LIMITED

UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(\$ in millions)

	Nine Months Ended September 30,	
	2017	2016
<b>Cash flows from/(used in) operating activities:</b>		
Net (loss)/income	\$ (81.5)	\$ 274.9
Proportion due to non-controlling interest	(0.8)	—
Adjustments to reconcile net income to net cash flows from operating activities:		
Depreciation and amortization	39.7	35.6
Share-based compensation	7.0	11.6
Realized and unrealized investment (gains)	(130.1)	(137.4)
Realized and unrealized investment losses	24.4	34.1
Change in fair value of loan notes issued by variable interest entities	(3.6)	13.7
Net realized and unrealized investment foreign exchange losses	(10.7)	(3.1)
Net change from current period hedged transactions	2.8	(1.3)
Changes in:		
Insurance reserves:		
Losses and loss adjustment expenses	1,045.5	349.7
Unearned premiums	278.1	181.4
Reinsurance recoverables:		
Unpaid losses	(797.9)	(73.1)
Ceded unearned premiums	(188.9)	(62.0)
Other receivables	(70.1)	(34.0)
Deferred policy acquisition costs	9.6	(26.4)
Reinsurance premiums payable	108.3	76.4
Funds withheld	(27.0)	(15.6)
Premiums receivable	(133.3)	(306.9)
Deferred taxes	(5.6)	9.5
Income tax payable	(1.0)	8.0
Accrued expenses and other payables	13.0	26.4
Fair value of derivatives and settlement of liabilities under derivatives	(16.7)	5.4
Long-term debt and loan notes issued by variable interest entities	(13.4)	9.8
Other assets	—	3.1
<b>Net cash from operating activities</b>	<b>\$ 47.8</b>	<b>\$ 379.8</b>

See accompanying notes to unaudited condensed consolidated financial statements.

**UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(\$ in millions)

	Nine Months Ended September 30,	
	2017	2016
<b>Cash flows from/(used in) investing activities:</b>		
(Purchases) of fixed income securities — Available for sale	\$ (1,239.4)	\$ (1,671.4)
(Purchases) of fixed income securities — Trading	(1,125.1)	(605.1)
Proceeds from sales and maturities of fixed income securities — Available for sale	1,581.9	1,668.7
Proceeds from sales and maturities of fixed income securities — Trading	763.9	481.0
(Purchases) of equity securities — Trading	(111.5)	(159.9)
Net proceeds from sales of catastrophe bonds — Trading	8.7	37.6
Proceeds from sales of equity securities — Trading	301.2	146.4
(Purchases) of short-term investments — Available for sale	(42.7)	(202.7)
Proceeds from sales of short-term investments — Available for sale	156.4	199.9
(Purchases) of short-term investments — Trading	(68.7)	(166.3)
Proceeds from sales of short-term investments — Trading	167.8	6.3
Net change in (payable)/receivable for securities (purchased)/sold	20.6	14.5
Net (purchases) of equipment	(26.7)	(15.7)
Sale of investment	9.3	—
Equity investment	(0.1)	(3.3)
Payments for acquisitions and investments, net of cash acquired	(2.3)	(52.7)
<b>Net cash from/(used in) investing activities</b>	<b>393.3</b>	<b>(322.7)</b>
<b>Cash flows (used in)/from financing activities:</b>		
Proceeds from the issuance of ordinary shares, net of issuance costs	0.4	2.0
Ordinary shares repurchased	(30.0)	(50.0)
Proceeds from the issuance of preference shares, net of issuance costs	—	241.3
Preference share redemption	(293.2)	—
Repayment of long-term debt issued by Silverton	(115.9)	(89.3)
Dividends paid on ordinary shares	(42.0)	(39.5)
Dividends paid on preference shares	(28.7)	(28.4)
Cash paid for tax withholding purposes <sup>(1)</sup>	(9.5)	—
<b>Net cash (used in)/from financing activities</b>	<b>(518.9)</b>	<b>36.1</b>
Effect of exchange rate movements on cash and cash equivalents	13.3	(9.4)
Decrease in cash and cash equivalents	(64.5)	83.8
Cash and cash equivalents at beginning of period	1,273.8	1,099.5
<b>Cash and cash equivalents at end of period</b>	<b>\$ 1,209.3</b>	<b>\$ 1,183.3</b>
<b>Supplemental disclosure of cash flow information:</b>		
Net cash paid (received) during the period for income tax	\$ (0.2)	\$ 0.2
Cash paid during the period for interest	\$ 22.2	\$ 14.5

(1) The cash paid to the tax authority when withholding shares from employees' awards for tax-withholding purposes has been reclassified from operating activity to financing activity following the adoption of ASU 2016-09.

See accompanying notes to unaudited condensed consolidated financial statements.

## ASPEN INSURANCE HOLDINGS LIMITED

### NOTES TO THE UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

#### 1. History and Organization

Aspen Insurance Holdings Limited (“Aspen Holdings”) was incorporated on May 23, 2002 as a holding company headquartered in Bermuda. We underwrite specialty insurance and reinsurance on a global basis through our Operating Subsidiaries (as defined below) based in Bermuda, the United States and the United Kingdom: Aspen Insurance UK Limited (“Aspen U.K.”) and Aspen Underwriting Limited (corporate member of Lloyd’s Syndicate 4711, “AUL” and managed by Aspen Managing Agency Limited (“AMAL”)) (United Kingdom), Aspen Bermuda Limited (“Aspen Bermuda”) (Bermuda), Aspen Specialty Insurance Company (“Aspen Specialty”) and Aspen American Insurance Company (“AAIC”) (United States) (collectively, the “Operating Subsidiaries”). We also have branches in Australia, Canada, France, Germany, Ireland, Singapore, Switzerland and the United Arab Emirates. We established Aspen Capital Management, Ltd and other related entities (collectively, “ACM”) to leverage our existing underwriting franchise, increase our operational flexibility in the capital markets and provide investors direct access to our underwriting expertise. References to the “Company,” the “Group,” “we,” “us” or “our” refer to Aspen Holdings or Aspen Holdings and its subsidiaries.

#### 2. Basis of Preparation

The accompanying unaudited condensed consolidated financial statements have been prepared on the basis of generally accepted accounting principles in the United States (“U.S. GAAP”) for interim financial information and in accordance with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. In the opinion of management, all adjustments considered necessary for a fair presentation have been included. Results for the three and nine months ended September 30, 2017 are not necessarily indicative of the results that may be expected for the year ended December 31, 2017. The unaudited condensed consolidated financial statements include the accounts of Aspen Holdings and its subsidiaries. All intercompany transactions and balances have been eliminated on consolidation.

The balance sheet as at December 31, 2016 has been derived from the audited consolidated financial statements at that date, but does not include all of the information and footnotes required by U.S. GAAP for complete financial statements. These unaudited condensed consolidated financial statements and notes thereto should be read in conjunction with the consolidated financial statements and notes thereto for the year ended December 31, 2016 contained in the Company’s Annual Report on Form 10-K filed with the United States Securities and Exchange Commission (the “SEC”) on February 22, 2017 (File No. 001-31909). Except for the changes associated with ASU 2016-09, “*Compensation — Stock Compensation*” listed below, there have been no changes to significant accounting policies from those disclosed in the Company’s 2016 Annual Report on Form 10-K.

Assumptions and estimates made by management have a significant effect on the amounts reported within the unaudited condensed consolidated financial statements. The most significant of these assumptions and estimates relate to losses and loss adjustment expenses, reinsurance recoverables, gross written premiums and commissions which have not been reported to the Company such as those relating to proportional treaty reinsurance contracts, unrecognized tax benefits, the fair value of derivatives and the fair value of other investments. All material assumptions and estimates are regularly reviewed and adjustments made as necessary, but actual results could turn out significantly different from those expected when the assumptions or estimates were made.

#### *Accounting Pronouncements Adopted in 2017*

On March 30, 2016, the Financial Accounting Standards Board (“FASB”) issued ASU 2016-09, “*Compensation — Stock Compensation*” which provides guidance on several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This ASU is effective for fiscal years beginning after December 15, 2016 and interim periods beginning after December 15, 2016. Following the adoption of this ASU, all excess tax benefits or expense related to stock-based compensation transactions are recognized prospectively as income tax benefits or expense in the Consolidated Income Statement and the excess tax benefits or expense from stock-based compensation transactions previously included in “Financing activities” on the Consolidated Statements of Cash Flows are prospectively included on that statement as “Operating activities.” The cash paid to the tax authority for tax withholding purposes has also been reclassified from operating to financing activity in the Consolidated Statement of Cash Flows and the comparative period has been restated. This ASU also allows share withholding up to the maximum statutory withholding requirement while still avoiding liability accounting. As a result, the Company has applied the equity accounting method for its restricted share units retrospectively and has recorded a cumulative effect adjustment of \$2.8 million through opening retained earnings and \$7.9 million through additional paid-in capital.

### Accounting Pronouncements Not Yet Adopted

On March 10, 2017, FASB issued ASU 2017-7, “Improving the Presentation of Net Periodic Pension Cost and Net Periodic Post Retirement Benefit Cost” which changes how employers report defined benefit pension and/or other post-retirement benefit costs in their financial statements. This ASU is effective for fiscal years beginning after December 15, 2017 and interim periods beginning after December 15, 2017. The Company has assessed the impact from the adoption of ASU 2017-7 and no material impact is expected on the consolidated financial statements.

On August 28, 2017, the FASB issued ASU 2017-12, “Derivatives and Hedging (Topic 815)” enabling entities to better align their hedge accounting and risk management activities, while also simplifying the application of hedge accounting in certain situations. This ASU is effective for fiscal years beginning after 15 December, 2018 using a modified retrospective approach for cash flow and net investment hedge relationships that exist on the date of adoption. The Company is currently evaluating the provisions of ASU 2017-12 to determine how it will be affected, but no material impact is expected on the consolidated financial statements.

Other accounting pronouncements were issued during the three months ended September 30, 2017 which were either not relevant to the Company or did not impact the Company’s consolidated financial statements.

### 3. Reclassifications from Accumulated Other Comprehensive Income

The following tables set out the components of the Company’s accumulated other comprehensive income (“AOCI”) that are reclassified into the unaudited condensed consolidated statement of operations for the three and nine months ended September 30, 2017 and 2016:

Details about the AOCI Components	Amount Reclassified from AOCI		Affected Line Item in the Unaudited Condensed Consolidated Statement of Operations
	Three Months Ended September 30, 2017	Three Months Ended September 30, 2016	
	(\$ in millions)		
Available for sale securities:			
Realized gains on sale of securities	\$ 2.6	\$ 5.3	Realized and unrealized investment gains
Realized (losses) on sale of securities	(1.6)	(0.9)	Realized and unrealized investment losses
	1.0	4.4	Income from operations before income tax
Tax on net realized gains of securities	(0.2)	—	Income tax expense
	<u>\$ 0.8</u>	<u>\$ 4.4</u>	Net (loss)/income
Realized derivatives:			
Net realized gains/(losses) on settled derivatives	\$ 1.2	\$ (3.1)	General, administrative and corporate expenses
Tax on settled derivatives	(0.2)	1.1	Income tax expense
	<u>\$ 1.0</u>	<u>\$ (2.0)</u>	Net (loss)/income
Total reclassifications from AOCI to the statement of operations, net of income tax	<u>\$ 1.8</u>	<u>\$ 2.4</u>	Net (loss)/income

Details about the AOCI Components	Amount Reclassified from AOCI		Affected Line Item in the Unaudited Condensed Consolidated Statement of Operations
	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016	
	(\$ in millions)		
Available for sale securities:			
Realized gains on sale of securities	\$ 8.2	\$ 14.8	Realized and unrealized investment gains
Realized (losses) on sale of securities	(5.4)	(5.1)	Realized and unrealized investment losses
	2.8	9.7	Income from operations before income tax
Tax on net realized gains of securities	(0.4)	(0.6)	Income tax expense
	\$ 2.4	\$ 9.1	Net (loss)/income
Realized derivatives:			
Net realized gains/(losses) on settled derivatives	\$ 2.4	\$ (5.6)	General, administrative and corporate expenses
Tax on settled derivatives	(0.5)	1.1	Income tax expense
	\$ 1.9	\$ (4.5)	Net (loss)/income
Total reclassifications from AOCI to the statement of operations, net of income tax	\$ 4.3	\$ 4.6	Net (loss)/income

#### 4. Earnings per Ordinary Share

Basic earnings per ordinary share are calculated by dividing net income available to holders of Aspen Holdings' ordinary shares by the weighted average number of ordinary shares outstanding. Net income available to ordinary shareholders is calculated by deducting preference share dividends and net income/(loss) attributable to non-controlling interest from net income/ (loss) after tax for the period. Diluted earnings per ordinary share are based on the weighted average number of ordinary shares and dilutive potential ordinary shares outstanding during the period of calculation using the treasury stock method. The following table sets forth the computation of basic and diluted earnings per ordinary share for the three and nine months ended September 30, 2017 and 2016, respectively:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(\$ in millions, except share and per share amounts)			
Net (loss) income	\$ (253.8)	\$ 95.6	\$ (81.5)	\$ 274.9
Preference share dividends	(7.7)	(9.5)	(28.7)	(28.4)
Preference share redemption costs <sup>(1)</sup>	(5.6)	—	(8.0)	—
Net amount attributable to non-controlling interest	(0.6)	0.2	(0.8)	—
Basic and diluted net (loss) income available to ordinary shareholders	\$ (267.7)	\$ 86.3	\$ (119.0)	\$ 246.5
Ordinary shares:				
Basic weighted average ordinary shares	59,759,730	60,225,705	59,862,540	60,588,307
Weighted average effect of dilutive securities <sup>(2) (3)</sup>	—	1,351,313	—	1,455,133
Total diluted weighted average ordinary shares	59,759,730	61,577,018	59,862,540	62,043,440
(Loss) earnings per ordinary share:				
Basic	\$ (4.48)	\$ 1.43	\$ (1.99)	\$ 4.07
Diluted <sup>(3)</sup>	\$ (4.48)	\$ 1.40	\$ (1.99)	\$ 3.97

<sup>(1)</sup> The \$8.0 million deduction from net income in 2017 is attributable to the reclassification from additional paid-in capital to retained earnings representing the difference between the capital raised upon issuance of the 7.401% and 7.250% Perpetual Non-Cumulative Preference Shares, net of issuance costs, and the total redemption costs of \$293.2 million.

<sup>(2)</sup> Dilutive securities consist of employee restricted share units and performance shares associated with the Company's long-term incentive plan, employee share purchase plans and director restricted share units as described in Note 14.

<sup>(3)</sup> The basic and diluted number of ordinary shares for the three and nine months ended September 30, 2017 is the same as the inclusion of dilutive securities in a loss making period would be anti-dilutive.

*Dividends.* On October 25, 2017, the Company's Board of Directors (the "Board of Directors") declared the following quarterly dividends:

	Dividend	Payable on:	Record Date:
Ordinary shares	\$ 0.24	November 28, 2017	November 10, 2017
5.95% preference shares	\$ 0.3719	January 1, 2018	December 15, 2017
5.625% preference shares	\$ 0.3516	January 1, 2018	December 15, 2017

#### 5. Segment Reporting

The Company has two reporting business segments: Insurance and Reinsurance. In addition to the way the Company manages its business, the Company has considered similarities in economic characteristics, products, customers, distribution, the regulatory environment of the Company's business segments and quantitative thresholds to determine the Company's reportable segments. Segment profit or loss for each of the Company's business segments is measured by underwriting profit or loss. Underwriting profit is the excess of net earned premiums over the sum of losses and loss expenses, amortization of deferred policy acquisition costs and general and administrative expenses. Underwriting profit or loss provides a basis for management to evaluate the business segment's underwriting performance.

*Reinsurance Segment.* The reinsurance segment consists of property catastrophe reinsurance, other property reinsurance (risk excess, pro rata and facultative), casualty reinsurance (U.S. treaty, international treaty and global facultative) and specialty insurance and reinsurance (credit and surety, mortgage reinsurance and insurance, agriculture insurance and reinsurance, marine, aviation, terrorism, engineering, cyber and other specialty lines). ACM forms part of our property catastrophe reinsurance line of

business as it focuses primarily on property catastrophe business through the use of alternative capital. For a more detailed description of this business segment, see Part I, Item 1, “Business — Business Segments — Reinsurance” in the Company’s 2016 Annual Report on Form 10-K filed with the SEC.

*Insurance Segment.* The insurance segment consists of property and casualty insurance, marine, aviation and energy insurance and financial and professional lines insurance. For a more detailed description of this business segment, see Part I, Item 1 “Business — Business Segments — Insurance” in the Company’s 2016 Annual Report on Form 10-K filed with the SEC.

*Non-underwriting Disclosures.* The Company has provided additional disclosures for corporate and other (non-operating) income and expenses. Corporate and other income and expenses include net investment income, net realized and unrealized investment gains or losses, expenses associated with managing the Group, certain strategic and non-recurring costs, changes in fair value of derivatives and changes in fair value of the loan notes issued by variable interest entities, interest expenses, net realized and unrealized foreign exchange gains or losses, and income taxes, none of which are allocated to the business segments. Corporate expenses are not allocated to the Company’s business segments as they typically do not fluctuate with the levels of premiums written and are not directly related to the Company’s business segment operations. The Company does not allocate its assets by business segment as it evaluates underwriting results of each business segment separately from the results of the Company’s investment portfolio.



The following tables provide a summary of gross and net written and earned premiums, underwriting results, ratios and reserves for each of the Company's business segments for the three months ended September 30, 2017 and 2016:

	<b>Three Months Ended September 30, 2017</b>		
	<b>Reinsurance</b>	<b>Insurance</b>	<b>Total</b>
	(\$ in millions)		
<b>Underwriting Revenues</b>			
Gross written premiums	\$ 431.5	\$ 421.0	\$ 852.5
Net written premiums	363.6	243.8	607.4
Gross earned premiums	464.0	449.3	913.3
Net earned premiums	382.0	270.5	652.5
<b>Underwriting Expenses</b>			
Losses and loss adjustment expenses	502.2	274.0	776.2
Amortization of deferred policy acquisition costs	61.5	43.9	105.4
General and administrative expenses	32.8	59.4	92.2
Underwriting loss	\$ (214.5)	\$ (106.8)	(321.3)
Corporate expenses			(13.5)
Non-operating expenses			(5.2)
Net investment income			46.4
Realized and unrealized investment gains			29.9
Realized and unrealized investment losses			(12.4)
Change in fair value of loan notes issued by variable interest entities			9.8
Change in fair value of derivatives			4.5
Interest expense on long term debt			(7.4)
Net realized and unrealized foreign exchange gains			8.4
Net other expense			(2.2)
Loss before tax			<u>\$ (263.0)</u>
Net reserves for loss and loss adjustment expenses	<u>\$ 2,865.8</u>	<u>\$ 2,255.3</u>	<u>\$ 5,121.1</u>
<b>Ratios</b>			
Loss ratio	131.5%	101.3%	119.0%
Policy acquisition expense ratio	16.1	16.2	16.2
General and administrative expense ratio	8.6	22.0	17.0 <sup>(1)</sup>
Expense ratio	24.7	38.2	33.2
Combined ratio	<u>156.2%</u>	<u>139.5%</u>	<u>152.2%</u>

<sup>(1)</sup> The general and administrative expense ratio in the total column includes corporate and non-operating expenses.

**Three Months Ended September 30, 2016**

	<u>Reinsurance</u>	<u>Insurance</u>	<u>Total</u>
	( \$ in millions)		
<b>Underwriting Revenues</b>			
Gross written premiums	\$ 365.9	\$ 397.6	\$ 763.5
Net written premiums	314.5	323.9	638.4
Gross earned premiums	364.3	445.5	809.8
Net earned premiums	316.3	364.7	681.0
<b>Underwriting Expenses</b>			
Losses and loss adjustment expenses	178.7	210.5	389.2
Amortization of deferred policy acquisition costs	53.0	77.9	130.9
General and administrative expenses	47.4	57.9	105.3
Underwriting income	\$ 37.2	\$ 18.4	55.6
Corporate expenses			(13.4)
Non-operating expenses			(6.3)
Net investment income			46.4
Realized and unrealized investment gains			26.7
Realized and unrealized investment losses			(5.2)
Change in fair value of loan notes issued by variable interest entities			(9.8)
Change in fair value of derivatives			0.6
Interest expense on long term debt			(7.3)
Net realized and unrealized foreign exchange gains			10.8
Net other income			2.4
Income before tax			<u>\$ 100.5</u>
Net reserves for loss and loss adjustment expenses	<u>\$ 2,495.4</u>	<u>\$ 2,331.4</u>	<u>\$ 4,826.8</u>
<b>Ratios</b>			
Loss ratio	56.5%	57.7%	57.2%
Policy acquisition expense ratio	16.8	21.4	19.2
General and administrative expense ratio	15.0	15.9	18.4 <sup>(1)</sup>
Expense ratio	31.8	37.3	37.6
Combined ratio	<u>88.3%</u>	<u>95.0%</u>	<u>94.8%</u>

<sup>(1)</sup> The general and administrative expense ratio in the total column includes corporate and non-operating expenses.

The following tables provide a summary of gross and net written and earned premiums, underwriting results, ratios and reserves for each of the Company's business segments for the nine months ended September 30, 2017 and 2016:

	Nine Months Ended September 30, 2017		
	Reinsurance	Insurance	Total
	(\$ in millions)		
<b>Underwriting Revenues</b>			
Gross written premiums	\$ 1,332.4	\$ 1,340.2	\$ 2,672.6
Net written premiums	1,097.3	775.0	1,872.3
Gross earned premiums	1,112.2	1,302.1	2,414.3
Net earned premiums	932.2	863.4	1,795.6
<b>Underwriting Expenses</b>			
Losses and loss adjustment expenses	797.9	652.6	1,450.5
Amortization of deferred policy acquisition costs	174.4	141.0	315.4
General and administrative expenses	117.4	186.9	304.3
Underwriting loss	\$ (157.5)	\$ (117.1)	(274.6)
Corporate expenses			(38.3)
Non-operating expenses			(9.5)
Net investment income			141.5
Realized and unrealized investment gains			130.1
Realized and unrealized investment losses			(24.4)
Change in fair value of loan notes issued by variable interest entities			3.6
Change in fair value of derivatives			25.2
Interest expense on long term debt			(22.2)
Net realized and unrealized foreign exchange losses			(21.1)
Other income			5.0
Other expense			(2.0)
Loss before tax			\$ (86.7)
Net reserves for loss and loss adjustment expenses	\$ 2,865.8	\$ 2,255.3	\$ 5,121.1
<b>Ratios</b>			
Loss ratio	85.6%	75.6%	80.8%
Policy acquisition expense ratio	18.7	16.3	17.6
General and administrative expense ratio	12.6	21.6	19.6 <sup>(1)</sup>
Expense ratio	31.3	37.9	37.2
Combined ratio	116.9%	113.5%	118.0%

<sup>(1)</sup> The general and administrative expense ratio in the total column includes corporate and non-operating expenses.

**Nine Months Ended September 30, 2016**

	<u>Reinsurance</u>	<u>Insurance</u>	<u>Total</u>
	( \$ in millions )		
<b>Underwriting Revenues</b>			
Gross written premiums	\$ 1,216.1	\$ 1,324.8	\$ 2,540.9
Net written premiums	1,070.8	1,092.1	2,162.9
Gross earned premiums	1,000.9	1,345.8	2,346.7
Net earned premiums	896.0	1,128.9	2,024.9
<b>Underwriting Expenses</b>			
Losses and loss adjustment expenses	494.3	694.5	1,188.8
Amortization of deferred policy acquisition costs	163.1	224.7	387.8
General and administrative expenses	130.6	173.7	304.3
Underwriting income	<u>\$ 108.0</u>	<u>\$ 36.0</u>	<u>144.0</u>
Corporate expenses			(50.6)
Non-operating expenses			(6.3)
Net investment income			143.9
Realized and unrealized investment gains			137.4
Realized and unrealized investment losses			(34.1)
Change in fair value of loan notes issued by variable interest entities			(13.7)
Change in fair value of derivatives			(7.0)
Interest expense on long term debt			(22.1)
Net realized and unrealized foreign exchange losses			(10.2)
Other income			2.4
Other expenses			(0.1)
Income before tax			<u>\$ 283.6</u>
Net reserves for loss and loss adjustment expenses	<u>\$ 2,495.4</u>	<u>\$ 2,331.4</u>	<u>\$ 4,826.8</u>
<b>Ratios</b>			
Loss ratio	55.2%	61.5%	58.7%
Policy acquisition expense ratio	18.2	19.9	19.2
General and administrative expense ratio	14.6	15.4	17.8 <sup>(1)</sup>
Expense ratio	<u>32.8</u>	<u>35.3</u>	<u>37.0</u>
Combined ratio	<u>88.0%</u>	<u>96.8%</u>	<u>95.7%</u>

<sup>(1)</sup> The general and administrative expense ratio in the total column includes corporate and non-operating expenses.

The Company uses underwriting ratios as measures of performance. The loss ratio is the ratio of losses and loss adjustment expenses to net earned premiums. The policy acquisition expense ratio is the ratio of amortization of deferred policy acquisition costs to net earned premiums. The general and administrative expense ratio is the ratio of general, administrative and corporate expenses to net earned premiums. The combined ratio is the sum of the loss ratio, the policy acquisition expense ratio and the general and administrative expense ratio.

## 6. Investments

### Income Statement

*Investment Income.* The following table summarizes investment income for the three and nine months ended September 30, 2017 and 2016:

	For the Three Months Ended		For the Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(\$ in millions)		(\$ in millions)	
Fixed income securities — Available for sale	\$ 32.9	\$ 34.8	\$ 100.7	\$ 107.9
Fixed income securities — Trading	11.1	7.6	31.6	22.9
Short-term investments — Available for sale	0.1	0.2	0.4	0.5
Short-term investments — Trading	—	—	0.5	—
Cash and cash equivalents	2.1	0.8	4.1	2.2
Equity securities — Trading	2.8	5.5	11.7	17.9
Catastrophe bonds — Trading	0.5	0.2	1.3	1.3
Total	\$ 49.5	\$ 49.1	\$ 150.3	\$ 152.7
Investment expenses	(3.1)	(2.7)	(8.8)	(8.8)
Net investment income	\$ 46.4	\$ 46.4	\$ 141.5	\$ 143.9

The following table summarizes the net realized and unrealized investment gains and losses recorded in the statement of operations and the change in unrealized gains and losses on investments recorded in other comprehensive income for the three and nine months ended September 30, 2017 and 2016:

	For the Three Months Ended		For the Nine Months Ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
	(\$ in millions)		(\$ in millions)	
<b>Available for sale:</b>				
Fixed income securities — gross realized gains	\$ 2.3	\$ 5.5	\$ 7.8	\$ 14.7
Fixed income securities — gross realized (losses)	(1.6)	(0.9)	(5.3)	(4.6)
Short-term investments — gross realized gains	—	0.1	0.1	—
Short-term investments — gross realized (losses)	—	(0.2)	—	—
Cash and cash equivalents — gross realized gains	0.3	—	0.3	0.1
Cash and cash equivalents — gross realized (losses)	—	—	(0.1)	(0.5)
Other-than-temporary impairments	(0.1)	—	(0.5)	—
<b>Trading:</b>				
Fixed income securities — gross realized gains	3.0	4.3	8.3	9.5
Fixed income securities — gross realized (losses)	(0.2)	(0.5)	(2.6)	(6.9)
Short-term investments — gross realized gains	1.9	—	2.0	—
Cash and cash equivalents — gross realized gains	1.3	—	1.3	—
Equity securities — gross realized gains	46.1	8.1	55.0	23.3
Equity securities — gross realized (losses)	(7.4)	(4.2)	(12.4)	(22.2)
Catastrophe bonds — net unrealized (losses)/gains	(3.1)	0.3	(3.2)	0.1
Net change in gross unrealized (losses)/gains	(25.0)	8.0	54.4	88.8
<b>Other investments:</b>				
Gross realized and unrealized (loss) in MVI	—	—	(0.1)	—
Gross realized (loss)/gain in Chaspark	—	1.0	0.9	1.0
Gross realized and unrealized (loss) in Bene	—	—	(0.2)	—
Total net realized and unrealized investment gains recorded in the statement of operations	\$ 17.5	\$ 21.5	\$ 105.7	\$ 103.3
<b>Change in available for sale net unrealized gains:</b>				
Fixed income securities	0.3	(23.2)	15.2	104.0
Total change in pre-tax available for sale unrealized gains	0.3	(23.2)	15.2	104.0
Change in taxes	(0.4)	2.0	(1.4)	(11.1)
Total change in net unrealized gains, net of taxes, recorded in other comprehensive income	\$ (0.1)	\$ (21.2)	\$ 13.8	\$ 92.9

*Other-Than-Temporary Impairments.* A security is potentially impaired when its fair value is below its amortized cost. The Company reviews its available for sale fixed income portfolios on an individual security basis for potential other-than-temporary impairment (“OTTI”) each quarter based on criteria including issuer-specific circumstances, credit ratings actions and general macro-economic conditions. The total OTTI charge for the three and nine months ended September 30, 2017 was \$0.1 million and \$0.5 million, respectively (2016 — \$Nil and \$Nil). For a more detailed description of accounting policies for OTTI, please refer to Note 2(c) of the “Notes to the Audited Consolidated Financial Statements” in the Company’s 2016 Annual Report on Form 10-K filed with the SEC.

## Balance Sheet

*Fixed Income Securities and Short-Term Investments — Available For Sale.* The following tables present the cost or amortized cost, gross unrealized gains and losses and estimated fair market value of available for sale investments in fixed income securities and short-term investments as at September 30, 2017 and December 31, 2016:

As at September 30, 2017				
	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Market Value
(\$ in millions)				
U.S. government	\$ 1,171.3	\$ 7.6	\$ (6.2)	\$ 1,172.7
U.S. agency	61.3	0.9	(0.1)	62.1
Municipal	47.9	2.2	—	50.1
Corporate	2,431.5	45.4	(8.6)	2,468.3
Non-U.S. government-backed corporate	94.0	0.4	(0.4)	94.0
Non-U.S. government	525.3	7.9	(1.5)	531.7
Asset-backed	33.6	0.1	—	33.7
Agency mortgage-backed	940.8	17.4	(5.4)	952.8
Total fixed income securities — Available for sale	5,305.7	81.9	(22.2)	5,365.4
Total short-term investments — Available for sale	34.4	—	—	34.4
Total	\$ 5,340.1	\$ 81.9	\$ (22.2)	\$ 5,399.8

As at December 31, 2016				
	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Market Value
(\$ in millions)				
U.S. government	\$ 1,207.9	\$ 9.4	\$ (11.2)	\$ 1,206.1
U.S. agency	117.7	1.9	—	119.6
Municipal	23.2	1.6	(0.4)	24.4
Corporate	2,566.9	39.6	(20.0)	2,586.5
Non-U.S. government-backed corporate	89.2	0.7	(0.1)	89.8
Non-U.S. government	477.7	11.8	(0.8)	488.7
Asset-backed	62.6	0.4	—	63.0
Non-agency commercial mortgage-backed	12.3	0.3	—	12.6
Agency mortgage-backed	1,062.6	19.6	(8.3)	1,073.9
Total fixed income securities — Available for sale	5,620.1	85.3	(40.8)	5,664.6
Total short-term investments — Available for sale	145.3	—	—	145.3
Total	\$ 5,765.4	\$ 85.3	\$ (40.8)	\$ 5,809.9

*Fixed Income Securities, Short-Term Investments, Equities and Catastrophe Bonds — Trading.* The following tables present the cost or amortized cost, gross unrealized gains and losses, and estimated fair market value of trading investments in fixed income securities, short-term investments, equity securities and catastrophe bonds as at September 30, 2017 and December 31, 2016:

<b>As at September 30, 2017</b>				
	<b>Cost or Amortized Cost</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>	<b>Fair Market Value</b>
(\$ in millions)				
U.S. government	\$ 160.6	\$ 0.6	\$ (0.6)	\$ 160.6
Municipal	32.4	—	(0.1)	32.3
Corporate	1,029.8	17.9	(2.7)	1,045.0
Non-U.S. government-backed corporate	2.0	—	—	2.0
Non-U.S. government	203.5	7.8	(0.4)	210.9
Asset-backed	11.0	0.1	—	11.1
Agency mortgage-backed	203.1	0.7	(0.7)	203.1
Total fixed income securities — Trading	1,642.4	27.1	(4.5)	1,665.0
Total short-term investments — Trading	90.3	—	—	90.3
Total equity securities — Trading	407.2	68.7	(7.3)	468.6
Total catastrophe bonds — Trading	33.5	—	(3.2)	30.3
Total	<u>\$ 2,173.4</u>	<u>\$ 95.8</u>	<u>\$ (15.0)</u>	<u>\$ 2,254.2</u>

<b>As at December 31, 2016</b>				
	<b>Cost or Amortized Cost</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>	<b>Fair Market Value</b>
(\$ in millions)				
U.S. government	\$ 82.8	\$ 0.4	\$ (0.8)	\$ 82.4
Municipal	15.7	—	(0.2)	15.5
Corporate	817.8	9.9	(7.1)	820.6
Non-U.S. government	203.4	3.5	(4.1)	202.8
Asset-backed	14.5	—	—	14.5
Agency mortgage-backed	130.6	0.2	(0.9)	129.9
Total fixed income securities — Trading	1,264.8	14.0	(13.1)	1,265.7
Total short-term investments — Trading	185.4	—	—	185.4
Total equity securities — Trading	554.3	55.4	(25.0)	584.7
Total catastrophe bonds — Trading	42.5	—	—	42.5
Total	<u>\$ 2,047.0</u>	<u>\$ 69.4</u>	<u>\$ (38.1)</u>	<u>\$ 2,078.3</u>

The Company classifies the financial instruments presented in the tables above as held for trading as this most closely reflects the facts and circumstances of the investments held.

*Catastrophe Bonds.* The Company has invested in catastrophe bonds with a total value of \$30.3 million as at September 30, 2017. The bonds receive quarterly interest payments based on variable interest rates with scheduled maturities ranging from 2017 to 2021. The redemption value of the bonds will adjust based on the occurrence of a covered event, such as windstorms and earthquakes in the United States, Canada, the North Atlantic, Japan or Australia.

*Other Investments.* In January 2015, the Company established, along with seven other insurance companies, a micro-insurance venture consortium and micro-insurance incubator (“MVI”) domiciled in Bermuda. The MVI is a social impact organization that provides micro-insurance products to assist global emerging consumers. The Company’s initial investment in the MVI was \$0.8 million. The Company made an additional investment of \$0.1 million in the quarter ended September 30, 2017.



On October 2, 2012, the Company established a subsidiary, Aspen Recoveries Limited, to take ownership of a 58.5% shareholding in Chaspark Maritime Holdings Ltd., a Singaporean registered company (“Chaspark”), with the remaining shareholding owned by other insurers. The shareholding in Chaspark was received as a settlement for subrogation rights associated with a contract frustration claim settlement. In the three and nine months ended September 30, 2017, the change in the value of the Company’s investment in Chaspark was a realized loss of \$Nil and a realized gain of \$0.9 million, respectively (September 30, 2016 — \$1.0 million unrealized gain and \$1.0 million unrealized gain). On March 10, 2017, Aspen Recoveries Limited received cash of \$9.3 million as settlement of its share of subrogation assets held by Chaspark.

On July 26, 2016, the Company purchased through its wholly-owned subsidiary, Acorn Limited, a 20% share of Bene Assicurazioni (“Bene”), an Italian-based motor insurer for a total consideration of \$3.3 million. The investment is accounted for under the equity method and adjustments to the carrying value of this investment are made based on the Company’s share of capital, including share of income and expenses.

On January 1, 2017, the Company purchased through its wholly-owned subsidiary, Aspen U.S. Holdings, Inc. (“Aspen U.S. Holdings”), a 49% share of Digital Risk Resources, LLC (“Digital Re”), a U.S.-based enterprise engaged in the business of developing, marketing and servicing turnkey information security and privacy liability insurance products, for a total consideration of \$2.3 million. The investment is accounted for under the equity method and adjustments to the carrying value of this investment are made based on the Company’s share of capital, including share of income and expenses.

The tables below show the Company’s investments in the MVI, Chaspark, Bene and Digital Re for the three and nine months ended September 30, 2017 and September 30, 2016:

	For the Three Months Ended September 30, 2017				
	MVI	Chaspark	Bene	Digital Re	Total
	(\$ in millions)				
Opening undistributed value of investment	\$ 0.4	\$ —	\$ 3.0	\$ 0.5	\$ 3.9
Additional investment	0.1	—	—	—	0.1
Closing undistributed value of investment	\$ 0.5	\$ —	\$ 3.0	\$ 0.5	\$ 4.0

	For the Three Months Ended September 30, 2016				
	MVI	Chaspark	Bene	Digital Re	Total
	(\$ in millions)				
Opening undistributed value of investment	\$ 0.6	\$ 8.1	\$ —	\$ —	\$ 8.7
Initial investment	—	—	—	3.3	3.3
Realized/unrealized gain for the three months to September 30, 2016	—	1.0	—	—	1.0
Closing value of investment	\$ 0.6	\$ 9.1	\$ 3.3	\$ —	\$ 13.0

	For the Nine Months Ended September 30, 2017				
	MVI	Chaspark	Bene	Digital Re	Total
	(\$ in millions)				
Opening undistributed value of investment	\$ 0.5	\$ 8.4	\$ 3.2	\$ —	\$ 12.1
Initial investment	—	—	—	2.3	2.3
Goodwill	—	—	—	(1.8)	(1.8)
Additional investment	0.1	—	—	—	0.1
Distribution received	—	(9.3)	—	—	(9.3)
Realized/unrealized gain/(losses) for the nine months to September 30, 2017	(0.1)	0.9	(0.2)	—	0.6
Closing undistributed value of investment	\$ 0.5	\$ —	\$ 3.0	\$ 0.5	\$ 4.0

	For the Nine Months Ended September 30, 2016			
	MVI	Chaspark	Bene	Total
	(\$ in millions)			
Opening undistributed value of investment	\$ 0.8	\$ 8.1	\$ —	\$ 8.9
Initial investment	—	—	3.3	3.3
Realized/unrealized gain for the nine months to September 30, 2016	(0.2)	1.0	—	0.8
Closing value of investment	\$ 0.6	\$ 9.1	\$ 3.3	\$ 13.0

*Fixed Income Securities.* The scheduled maturity distribution of available for sale fixed income securities as at September 30, 2017 and December 31, 2016 is set forth in the tables below. Actual maturities may differ from contractual maturities because issuers of securities may have the right to call or prepay obligations with or without call or prepayment penalties.

	As at September 30, 2017		
	Amortized Cost or Cost	Fair Market Value	Average S&P Ratings by Maturity
	(\$ in millions)		
Due one year or less	\$ 577.8	\$ 579.2	AA
Due after one year through five years	2,597.3	2,623.2	AA-
Due after five years through ten years	1,060.6	1,070.1	AA-
Due after ten years	95.6	106.4	A+
Subtotal	4,331.3	4,378.9	
Agency mortgage-backed	940.8	952.8	AA+
Asset-backed	33.6	33.7	AAA
Total fixed income securities — Available for sale	\$ 5,305.7	\$ 5,365.4	

	As at December 31, 2016		
	Amortized Cost or Cost	Fair Market Value	Average S&P Ratings by Maturity
	(\$ in millions)		
Due one year or less	\$ 567.2	\$ 570.0	AA
Due after one year through five years	2,643.7	2,671.9	AA-
Due after five years through ten years	1,172.3	1,168.1	A+
Due after ten years	99.4	105.1	A+
Subtotal	4,482.6	4,515.1	
Non-agency commercial mortgage-backed	12.3	12.6	AAA
Agency mortgage-backed	1,062.6	1,073.9	AA+
Asset-backed	62.6	63.0	AAA
Total fixed income securities — Available for sale	\$ 5,620.1	\$ 5,664.6	

*Guaranteed Investments.* As at September 30, 2017, the Company held no investments which are guaranteed by mono-line insurers, excluding those with explicit government guarantees. As at December 31, 2016, the Company held one municipal bond security guaranteed by a mono-line insurer with fair value less than \$0.1 million rated CC or higher. The standalone rating (rating without guarantee) is determined as the senior unsecured debt rating of the issuer. Where the credit ratings were split between the two main rating agencies, Standard & Poor's Financial Services LLC ("S&P") and Moody's Investors Service, Inc. ("Moody's"), the lowest rating was used. The Company's exposure to other third-party guaranteed debt is primarily to investments backed by non-U.S. government guaranteed issuers.

*Gross Unrealized Loss.* The following tables summarize, by type of security, the aggregate fair value and gross unrealized loss by length of time the security has been in an unrealized loss position in the Company’s available for sale portfolio as at September 30, 2017 and December 31, 2016:

As at September 30, 2017							
	0-12 months		Over 12 months		Total		
	Fair Market Value	Gross Unrealized Loss	Fair Market Value	Gross Unrealized Loss	Fair Market Value	Gross Unrealized Loss	Number of Securities
(\$ in millions)							
U.S. government	\$ 617.5	\$ (5.0)	\$ 62.5	\$ (1.2)	\$ 680.0	\$ (6.2)	80
U.S. agency	19.6	(0.1)	—	—	19.6	(0.1)	7
Municipal	19.2	—	—	—	19.2	—	6
Corporate	483.9	(4.6)	154.1	(4.0)	638.0	(8.6)	255
Non-U.S. government-backed corporate	63.4	(0.4)	0.4	—	63.8	(0.4)	15
Non-U.S. government	211.5	(1.2)	36.8	(0.3)	248.3	(1.5)	43
Asset-backed	12.2	—	—	—	12.2	—	9
Agency mortgage-backed	426.0	(4.5)	33.9	(0.9)	459.9	(5.4)	133
Total fixed income securities — Available for sale	1,853.3	(15.8)	287.7	(6.4)	2,141.0	(22.2)	548
Total short-term investments — Available for sale	25.7	—	—	—	25.7	—	10
<b>Total</b>	<b>\$ 1,879.0</b>	<b>\$ (15.8)</b>	<b>\$ 287.7</b>	<b>\$ (6.4)</b>	<b>\$ 2,166.7</b>	<b>\$ (22.2)</b>	<b>558</b>

As at December 31, 2016							
	0-12 months		Over 12 months		Total		
	Fair Market Value	Gross Unrealized Loss	Fair Market Value	Gross Unrealized Loss	Fair Market Value	Gross Unrealized Loss	Number of Securities
(\$ in millions)							
U.S. government	\$ 724.4	\$ (11.2)	\$ —	\$ —	\$ 724.4	\$ (11.2)	78
U.S. agency	14.1	—	—	—	14.1	—	4
Municipal	7.7	(0.2)	0.8	(0.2)	8.5	(0.4)	6
Corporate	1,044.4	(19.4)	6.6	(0.6)	1,051.0	(20.0)	386
Non-U.S. government-backed corporate	29.6	(0.1)	—	—	29.6	(0.1)	11
Non-U.S. government	143.5	(0.8)	1.0	—	144.5	(0.8)	29
Asset-backed	25.8	—	1.4	—	27.2	—	15
Agency mortgage-backed	527.6	(7.6)	27.2	(0.7)	554.8	(8.3)	148
Total fixed income securities — Available for sale	2,517.1	(39.3)	37.0	(1.5)	2,554.1	(40.8)	677
Total short-term investments — Available for sale	1.1	—	—	—	1.1	—	2
<b>Total</b>	<b>\$ 2,518.2</b>	<b>\$ (39.3)</b>	<b>\$ 37.0</b>	<b>\$ (1.5)</b>	<b>\$ 2,555.2</b>	<b>\$ (40.8)</b>	<b>679</b>

## 7. Variable Interest Entities

As at September 30, 2017, the Company had investments in three variable interest entities (“VIE”): Chaspark, Peregrine Reinsurance Ltd (“Peregrine”) and Silverton Re Ltd (“Silverton”).

*Chaspark.* The Company has determined that Chaspark has the characteristics of a VIE as addressed by the guidance in ASC 810, *Consolidation*. For more information on Chaspark, refer to Note 6 of these unaudited condensed consolidated financial statements.

*Peregrine.* In November 2016, Peregrine, a subsidiary of the Company, was registered as a segregated accounts company under the Segregated Accounts Companies Act 2000, as amended. As at September 30, 2017, Peregrine had three segregated accounts which were funded by a third party investor. The segregated accounts have not been consolidated as part of the Company's consolidated financial statements. The Company has, however, determined that Peregrine has the characteristics of a VIE as addressed by the guidance in ASC 810, *Consolidation*. The Company concluded that it is not the primary beneficiary of the three segregated accounts of Peregrine but is the primary beneficiary of the Peregrine general fund and, similar to prior reporting periods, the Company has included the results of the Peregrine general fund in its consolidated financial statements. The Company's exposure to Peregrine's general fund is not material.

*Silverton.* On September 10, 2013, the Company established Silverton, a Bermuda domiciled special purpose insurer formed to provide additional collateralized capacity to support Aspen Re's business through retrocession agreements which are collateralized and funded by Silverton through the issuance of one or more series of participating loan notes (collectively, the "Loan Notes"). Silverton is a non-rated insurer and the risks are fully collateralized by way of funds held in trust for the benefit of Aspen Bermuda and Aspen U.K., the ceding reinsurers.

All proceeds from the issuance of the Loan Notes were deposited into separate collateral accounts for each series of Loan Notes to fund Silverton's obligations under a retrocession property quota share agreement entered into with Aspen Bermuda or Aspen Bermuda and Aspen U.K., as the case may be. The holders of the Loan Notes participate in any profit or loss generated by Silverton attributable to the operations of the respective Silverton segregated account. Any existing value of the Loan Notes will be returned to the noteholders in installments after the expiration of the risk period of the retrocession agreement issued by Silverton for the related series of Loan Notes with the final payment being contractually due on the respective maturity dates.

The following tables show the total liability balance of the Loan Notes for the nine months ended September 30, 2017 and 2016:

	<b>For the Nine Months Ended September 30, 2017</b>		
	<b>Third Party</b>	<b>Aspen Holdings</b>	<b>Total</b>
	(\$ in millions)		
Opening balance	\$ 223.4	\$ 54.5	\$ 277.9
Total change in fair value for the period	(3.6)	(0.9)	(4.5)
Total distributed in the period	(115.9)	(28.8)	(144.7)
Closing balance as at September 30, 2017	\$ 103.9	\$ 24.8	\$ 128.7
<b>Liability</b>			
Loan notes (long-term liabilities)	\$ 101.5	\$ 24.2	\$ 125.7
Accrued expenses (current liabilities)	2.4	0.6	3.0
Total aggregate unpaid balance as at September 30, 2017	\$ 103.9	\$ 24.8	\$ 128.7

	<b>For the Nine Months Ended September 30, 2016</b>		
	<b>Third Party</b>	<b>Aspen Holdings</b>	<b>Total</b>
	(\$ in millions)		
Opening balance	\$ 190.6	\$ 44.4	\$ 235.0
Total change in fair value for the period	13.7	3.4	17.1
Total distributed in the period	(89.3)	(19.4)	(108.7)
Closing balance as at September 30, 2016	\$ 115.0	\$ 28.4	\$ 143.4
<b>Liability</b>			
Loan notes (long-term liabilities)	\$ 112.7	\$ 27.9	\$ 140.6
Accrued expenses (current liabilities)	2.3	0.5	2.8
Total aggregate unpaid balance as at September 30, 2016	\$ 115.0	\$ 28.4	\$ 143.4

The Company has determined that Silverton has the characteristics of a VIE that are addressed by the guidance in ASC 810, *Consolidation*. The Company concluded that it is the primary beneficiary of Silverton as it owns all of Silverton's voting shares and issued share capital, and has a significant financial interest and the power to control Silverton. As a result, the Company

consolidated Silverton upon its formation. The Company has no other obligation to provide financial support to Silverton and neither the creditors nor beneficial interest holders of Silverton have recourse to the Company's general credit.

In the event of an extreme catastrophic property reinsurance event or severe credit-related event, there is a risk that Aspen Bermuda and Aspen U.K. would be unable to recover losses from Silverton. These two risks are mitigated as follows:

- i. Silverton has collateralized the aggregate limit provided to Aspen Bermuda and Aspen U.K. by way of a trust in favor of Aspen Bermuda and Aspen U.K. as beneficiaries;
- ii. the trustee is a large, well-established regulated entity; and
- iii. all funds within the trust account are bound by investment guidelines restricting investments to one of the institutional class money market funds run by large international investment managers.

For further information regarding the Loan Notes attributable to the third-party investments in Silverton, refer to Note 8 of these unaudited condensed consolidated financial statements.

## **8. Fair Value Measurements**

The Company's estimates of fair value for financial assets and liabilities are based on the framework established in the fair value accounting guidance included in ASC 820, *Fair Value Measurements and Disclosures*. The framework prioritizes the inputs, which refer broadly to assumptions market participants would use in pricing an asset or liability, into three levels.

The Company considers prices for actively traded securities to be derived based on quoted prices in an active market for identical assets, which are Level 1 inputs in the fair value hierarchy. The majority of these securities are valued using prices supplied by index providers.

The Company considers prices for other securities that may not be as actively traded which are priced via pricing services, index providers, vendors and broker-dealers, or with reference to interest rates and yield curves, to be derived based on inputs that are observable for the asset, either directly or indirectly, which are Level 2 inputs in the fair value hierarchy. The majority of these securities are also valued using prices supplied by index providers.

The Company considers securities, other financial instruments and derivative insurance contracts subject to fair value measurement whose valuation is derived by internal valuation models to be based largely on unobservable inputs, which are Level 3 inputs in the fair value hierarchy.

The following tables present the level within the fair value hierarchy at which the Company's financial assets and liabilities are measured on a recurring basis as at September 30, 2017 and December 31, 2016:

	As at September 30, 2017			
	Level 1	Level 2	Level 3	Total
	(\$ in millions)			
<b>Available for sale financial assets, at fair value</b>				
U.S. government	\$ 1,172.6	\$ —	\$ —	\$ 1,172.6
U.S. agency	—	62.1	—	62.1
Municipal	—	50.1	—	50.1
Corporate	—	2,468.4	—	2,468.4
Non-U.S. government-backed corporate	—	94.0	—	94.0
Non-U.S. government	375.2	156.5	—	531.7
Asset-backed	—	33.7	—	33.7
Agency mortgage-backed	—	952.8	—	952.8
Total fixed income securities available for sale, at fair value	1,547.8	3,817.6	—	5,365.4
Short-term investments available for sale, at fair value	27.4	7.0	—	34.4
<b>Held for trading financial assets, at fair value</b>				
U.S. government	160.6	—	—	160.6
U.S. agency	—	—	—	—
Municipal	—	32.3	—	32.3
Corporate	—	1,045.0	—	1,045.0
Non-U.S. government-backed corporate	—	2.0	—	2.0
Non-U.S. government	24.5	186.4	—	210.9
Asset-backed	—	11.1	—	11.1
Agency mortgage-backed	—	203.1	—	203.1
Total fixed income securities trading, at fair value	185.1	1,479.9	—	1,665.0
Short-term investments trading, at fair value	90.0	0.3	—	90.3
Equity investments trading, at fair value	468.6	—	—	468.6
Catastrophe bonds trading, at fair value	—	30.3	—	30.3
<b>Other financial assets and liabilities, at fair value</b>				
Derivatives at fair value — foreign exchange contracts	—	8.4	—	8.4
Liabilities under derivative contracts — foreign exchange contracts	—	(2.9)	—	(2.9)
Loan notes issued by variable interest entities, at fair value	—	—	(101.5)	(101.5)
Loan notes issued by variable interest entities, at fair value (included within accrued expenses and other payables)	—	—	(2.4)	(2.4)
<b>Total</b>	<b>\$ 2,318.9</b>	<b>\$ 5,340.6</b>	<b>\$ (103.9)</b>	<b>\$ 7,555.6</b>

There were no transfers between Level 1, Level 2 and Level 3 during the three and nine months ended September 30, 2017. The Company settled \$1.4 million and \$115.9 million of Level 3 liabilities in respect of the Loan Notes issued by Silverton for the three and nine months ended September 30, 2017, respectively. As at September 30, 2017, there were no assets classified as Level 3 and the Company's Level 3 liabilities consisted solely of the Loan Notes issued by Silverton.

	As at December 31, 2016			
	Level 1	Level 2	Level 3	Total
	(\$ in millions)			
<b>Available for sale financial assets, at fair value</b>				
U.S. government	\$ 1,206.1	\$ —	\$ —	\$ 1,206.1
U.S. agency	—	119.6	—	119.6
Municipal	—	24.4	—	24.4
Corporate	—	2,586.5	—	2,586.5
Non-U.S. government-backed corporate	—	89.8	—	89.8
Non-U.S. government	343.7	145.0	—	488.7
Asset-backed	—	63.0	—	63.0
Non-agency commercial mortgage-backed	—	12.6	—	12.6
Agency mortgage-backed	—	1,073.9	—	1,073.9
Total fixed income securities available for sale, at fair value	1,549.8	4,114.8	—	5,664.6
Short-term investments available for sale, at fair value	118.6	26.7	—	145.3
<b>Held for trading financial assets, at fair value</b>				
U.S. government	82.4	—	—	82.4
Municipal	—	15.5	—	15.5
Corporate	—	820.6	—	820.6
Non-U.S. government	—	202.8	—	202.8
Asset-backed	—	14.5	—	14.5
Agency mortgage-backed	—	129.9	—	129.9
Total fixed income securities trading, at fair value	82.4	1,183.3	—	1,265.7
Short-term investments trading, at fair value	76.1	109.3	—	185.4
Equity investments trading, at fair value	584.7	—	—	584.7
Catastrophe bonds trading, at fair value	—	42.5	—	42.5
<b>Other financial assets and liabilities, at fair value</b>				
Derivatives at fair value – foreign exchange contracts	—	7.2	—	7.2
Liabilities under derivative contracts – foreign exchange contracts	—	(18.4)	—	(18.4)
Loan notes issued by variable interest entities, at fair value	—	—	(115.0)	(115.0)
Loan notes issued by variable interest entities, at fair value (included within accrued expenses and other payables)	—	—	(108.4)	(108.4)
Total	\$ 2,411.6	\$ 5,465.4	\$ (223.4)	\$ 7,653.6

Transfers of assets into or out of a particular level are recorded at their fair values as of the end of each reporting period, consistent with the date of the determination of fair value. During the twelve months ended December 31, 2016, the Company transferred \$83.9 million of non-U.S. government securities from Level 1 to Level 2.

The Company settled \$89.3 million Level 3 liabilities in respect of the Loan Notes issued by Silverton for the twelve months ended December 31, 2016. As at December 31, 2016, there were no assets classified as Level 3 and the Company's Level 3 liabilities consisted of the Loan Notes issued by Silverton.

The following table presents a reconciliation of the beginning and ending balances for all assets and liabilities measured at fair value on a recurring basis using Level 3 inputs for the three and nine months ended September 30, 2017 and 2016:

<b>Reconciliation of Liabilities Using Level 3 Inputs</b>	<b>Three Months Ended September 30, 2017</b>	<b>Three Months Ended September 30, 2016</b>
	(\$ in millions)	
Balance at the beginning of the period	\$ 115.1	\$ 105.5
Distributed to third party	(1.4)	(0.3)
Total change in fair value included in the statement of operations	(9.8)	9.8
Balance at the end of the period <sup>(1)</sup>	<u>\$ 103.9</u>	<u>\$ 115.0</u>

<b>Reconciliation of Liabilities Using Level 3 Inputs</b>	<b>Nine Months Ended September 30, 2017</b>	<b>Nine Months Ended September 30, 2016</b>
	(\$ in millions)	
Balance at the beginning of the period	223.4	190.6
Distributed to third party	(115.9)	(89.3)
Total change in fair value included in the statement of operations	(3.6)	13.7
Balance at the end of the period <sup>(1)</sup>	<u>103.9</u>	<u>115.0</u>

<sup>(1)</sup> The amount classified within accrued expenses and other payables was \$2.4 million and \$2.3 million as at September 30, 2017 and September 30, 2016, respectively.

*Valuation of Fixed Income Securities.* The Company's fixed income securities are classified as either available for sale or trading and carried at fair value. As at September 30, 2017 and December 31, 2016, the Company's fixed income securities were valued by pricing services, index providers or broker-dealers using standard market conventions. The market conventions utilize market quotations, market transactions in comparable instruments and various relationships between instruments including, but not limited to, yield to maturity, dollar prices and spread prices in determining value.

*Independent Pricing Services and Index Providers.* The underlying methodology used to determine the fair value of securities in the Company's available for sale and trading portfolios by the pricing services and index providers the Company uses is very similar. Pricing services will gather observable pricing inputs from multiple external sources, including buy and sell-side contacts and broker-dealers, in order to develop their internal prices. Index providers are those firms which provide prices for a range of securities within one or more asset classes, typically using their own in-house market makers (traders) as the primary pricing source for the indices, although ultimate valuations may also rely on other observable data inputs to derive a dollar price for all index-eligible securities. Index providers without in-house trading desks will function similarly to a pricing service in that they will gather their observable pricing inputs from multiple external sources. All prices for the Company's securities attributed to index providers are for an individual security within the respective indices.

Pricing services and index providers provide pricing for less complex, liquid securities based on market quotations in active markets. Pricing services and index providers supply prices for a broad range of securities including those for actively traded securities, such as Treasury and other Government securities, in addition to those that trade less frequently or where valuation includes reference to credit spreads, pay down and pre-pay features and other observable inputs. These securities include Government Agency, Municipals, Corporate and Asset-Backed Securities.

For securities that may trade less frequently or do not trade on a listed exchange, these pricing services and index providers may use matrix pricing consisting of observable market inputs to estimate the fair value of a security. These observable market inputs include: reported trades, benchmark yields, broker-dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, reference data, and industry and economic factors. Additionally, pricing services and index providers may use a valuation model such as an option adjusted spread model commonly used for estimating fair values of mortgage-backed and asset-backed securities. Neither the Company, nor its index providers, derives dollar prices using an index as a pricing input for any individual security.

*Broker-Dealers.* The Company obtains quotes from broker-dealers who are active in the corresponding markets when prices are unavailable from independent pricing services or index providers. Generally, broker-dealers value securities through their trading desks based on observable market inputs. Their pricing methodologies include mapping securities based on trade data, bids or offers, observed spreads and performance of newly issued securities. They may also establish pricing through observing secondary trading of similar securities.



The Company obtains prices for all of its fixed income investment securities via its third-party accounting service provider, and in the majority of cases receiving a number of quotes so as to obtain the most comprehensive information available to determine a security's fair value. A single valuation is applied to each security based on the vendor hierarchy maintained by the Company's third-party accounting service provider.

As at September 30, 2017, the Company obtained an average of 2.0 quotes per fixed income investment, compared to 2.1 quotes as at December 31, 2016. Pricing sources used in pricing fixed income investments as at September 30, 2017 and December 31, 2016 were as follows:

	<u>As at September 30, 2017</u>	<u>As at December 31, 2016</u>
Index providers	84%	87%
Pricing services	10	7
Broker-dealers	6	6
Total	<u>100%</u>	<u>100%</u>

*Summary Pricing Information Table.* A summary of securities priced using pricing information from index providers as at September 30, 2017 and December 31, 2016 is provided below:

	<u>As at September 30, 2017</u>		<u>As at December 31, 2016</u>	
	<u>Fair Market Value Determined using Prices from Index Providers</u>	<u>% of Total Fair Value by Security Type</u>	<u>Fair Market Value Determined using Prices from Index Providers</u>	<u>% of Total Fair Value by Security Type</u>
(\$ in millions, except for percentages)				
U.S. government	\$ 1,333.2	100%	\$ 1,288.2	100%
U.S. agency	53.2	86%	110.2	92%
Municipal	31.2	38%	28.8	72%
Corporate	3,346.0	95%	3,275.3	96%
Non-U.S. government-backed corporate	47.8	50%	44.8	50%
Non-U.S. government	425.6	61%	455.6	72%
Asset-backed	14.2	32%	32.1	41%
Non-agency commercial mortgage-backed	—	—%	12.5	98%
Agency mortgage-backed	618.2	54%	691.9	58%
Total fixed income securities	<u>\$ 5,869.4</u>	<u>84%</u>	<u>\$ 5,939.4</u>	<u>87%</u>
Equities	468.6	100%	584.7	100%
Total fixed income securities and equity investments	<u>\$ 6,338.0</u>	<u>85%</u>	<u>\$ 6,524.1</u>	<u>88%</u>

The Company, in conjunction with its third-party accounting service provider, obtains an understanding of the methods, models and inputs used by the third-party pricing service and index providers to assess the ongoing appropriateness of vendors' prices. The Company and its third-party accounting service provider also have controls in place to validate that amounts provided represent fair values. Processes to validate and review pricing include, but are not limited to:

- quantitative analysis (e.g., comparing the quarterly return for each managed portfolio to its target benchmark, with significant differences identified and investigated);
- comparison of market values obtained from pricing services, index providers and broker-dealers against alternative price sources for each security where further investigation is completed when significant differences exist for pricing of individual securities between pricing sources;
- initial and ongoing evaluation of methodologies used by outside parties to calculate fair value; and
- comparison of the fair value estimates to the Company's knowledge of the current market.

Prices obtained from pricing services, index providers and broker-dealers are not adjusted by us; however, prices provided by a pricing service, index provider or broker-dealer in certain instances may be challenged based on information available from market or internal sources, including those available to the Company's third-party investment accounting service provider. Subsequent to any challenge, revisions made by the pricing service, index provider or broker-dealer to the quotes are supplied to the Company's investment accounting service provider.

Management reviews the vendor hierarchy maintained by the Company's third-party accounting service provider in order to determine which price source provides the most appropriate fair value (i.e., a price obtained from a pricing service with more seniority in the hierarchy will be used over a less senior one in all cases). The hierarchy level assigned to each security in the Company's available for sale and trading portfolios is based upon its assessment of the transparency and reliability of the inputs used in the valuation as of the measurement date. The hierarchy of index providers and pricing services is determined using various qualitative and quantitative points arising from reviews of the vendors conducted by the Company's third-party accounting service provider. Vendor reviews include annual onsite due diligence meetings with index providers and pricing services vendors covering valuation methodology, operational walkthroughs and legal and compliance updates. Index providers are assigned the highest priority in the pricing hierarchy due primarily to availability and reliability of pricing information.

*Fixed Income Securities.* The Company's fixed income securities are traded on the over-the-counter ("OTC") market based on prices provided by one or more market makers in each security. Securities such as U.S. Government, U.S. Agency, Non-U.S. Government and investment grade corporate bonds have multiple market makers in addition to readily observable market value indicators such as expected credit spread, except for Treasury securities, over the yield curve. The Company uses a variety of pricing sources to value fixed income securities including those securities that have pay down/prepay features such as mortgage-backed securities and asset-backed securities in order to ensure fair and accurate pricing. The fair value estimates for the investment grade securities in the Company's portfolio do not use significant unobservable inputs or modeling techniques.

*U.S. Government and Agency.* U.S. government and agency securities consist primarily of bonds issued by the U.S. Treasury and corporate debt issued by agencies such as the Federal National Mortgage Association ("FNMA"), the Federal Home Loan Mortgage Corporation ("FHLMC") and the Federal Home Loan Bank. As the fair values of U.S. Treasury securities are based on unadjusted market prices in active markets, they are classified within Level 1. The fair values of U.S. government agency securities are priced using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of U.S. government agency securities are classified within Level 2.

*Municipals.* The Company's municipal portfolio comprises bonds issued by U.S. domiciled state and municipality entities. The fair value of these securities is determined using spreads obtained from broker-dealers, trade prices and the new issue market which are Level 2 inputs in the fair value hierarchy. Consequently, these securities are classified within Level 2.

*Foreign Government.* The issuers for securities in this category are non-U.S. governments and their agencies. The fair values of certain non-U.S. government bonds, primarily sourced from international indices, are based on unadjusted market prices in active markets and are therefore classified within Level 1. The remaining non-U.S. government bonds are classified within Level 2 as they are not actively traded. The fair values of the non-U.S. agency securities, again primarily sourced from international indices, are priced using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of non-U.S. agency securities are classified within Level 2. In addition, foreign government securities include a portion of the Emerging Market Debt ("EMD") portfolio which is also classified within Level 2.

*Corporate.* Corporate securities consist primarily of U.S. and foreign corporations covering a variety of industries and are for the most part priced by index providers and pricing vendors. Some issuers may participate in government programs which guarantee timely payment of principal and interest in the event of a default. The fair values of these securities are generally determined using the spread above the risk-free yield curve. Inputs used in the evaluation of these securities include credit data, interest rate data, market observations and sector news, broker-dealer quotes and trade volumes. In addition, corporate securities include a portion of the EMD portfolio. The Company classifies all of these securities within Level 2.

*Mortgage-backed Securities.* The Company's residential and commercial mortgage-backed securities consist of bonds issued by the Government National Mortgage Association, the FNMA and the FHLMC as well as private non-agency issuers. The fair values of these securities are determined through the use of a pricing model (including Option Adjusted Spread) which uses prepayment speeds and spreads to determine the appropriate average life of the mortgage-backed security. These spreads are generally obtained from broker-dealers, trade prices and the new issue market. As the significant inputs used to price mortgage-backed securities are observable market inputs, these securities are classified within Level 2.

*Asset-backed Securities.* The underlying collateral for the Company's asset-backed securities consists mainly of student loans, automobile loans and credit card receivables. These securities are primarily priced by index providers and pricing vendors. Inputs to the valuation process include broker-dealer quotes and other available trade information, prepayment speeds, interest rate data and credit spreads. The Company classifies these securities within Level 2.

*Short-term Investments.* Short-term investments comprise highly liquid debt securities with a maturity greater than three months but less than one year from the date of purchase. Short-term investments are valued in a manner similar to the Company's fixed income investments and are classified within Levels 1 and 2.

*Equity Securities.* Equity securities include U.S. and foreign common stocks and are classified as trading and carried at fair value. These securities are classified within Level 1 as their fair values are based on quoted market prices in active markets from independent pricing sources. As at September 30, 2017, the Company obtained an average of 4.0 quotes per equity investment,

compared to 3.9 quotes as at December 31, 2016. Pricing sources used in pricing equities as at September 30, 2017 and December 31, 2016 were substantially all provided by index providers.

*Catastrophe Bonds.* Catastrophe bonds held by the Company are variable rate fixed income instruments with redemption values adjusted based on the occurrence of a covered event, usually windstorms and earthquakes. These bonds have been classified as trading and carried at fair value. Bonds are priced using an average of multiple broker-dealer quotes and, as such, are classified as Level 2.

*Foreign Exchange Contracts.* The foreign exchange contracts which the Company uses to mitigate currency risk are characterized as OTC due to their customized nature and the fact that they do not trade on a major exchange. These instruments trade in a deep liquid market, providing substantial price transparency and accordingly are classified as Level 2.

*Loan Notes Issued by Silverton.* Silverton, a licensed special purpose insurer, is consolidated into the Company's accounts as a VIE. In the fourth quarter of 2014, Silverton issued an additional \$85.0 million (\$70.0 million third-party funded) of Loan Notes with a maturity date of September 18, 2017. In the fourth quarter of 2015, Silverton issued an additional \$125.0 million (\$100.0 million third-party funded) of Loan Notes with a maturity date of September 17, 2018. In the fourth quarter of 2016, Silverton issued an additional \$130.0 million (\$105.0 million third-party funded) of Loan Notes with a maturity date of September 16, 2019. The Company elected to account for the Loan Notes at fair value using the guidance as prescribed under ASC 825, *Financial Instruments* as the Company believes it represents the most meaningful measurement basis for these liabilities. The Loan Notes are recorded at fair value at each reporting period and, as they are not quoted on an active market and contain significant unobservable inputs, they have been classified as a Level 3 instrument in the Company's fair value hierarchy. The Loan Notes are unique because they are linked to the specific risks of the Company's property catastrophe book.

To determine the fair value of the Loan Notes the Company runs an internal model which considers the seasonality of the risk assumed under the retrocessional agreement between Aspen Bermuda or a combination of Aspen Bermuda and Aspen U.K., as ceding reinsurers, and Silverton. The seasonality used in the model is initially determined by applying the percentage of property catastrophe losses planned by the Company's actuaries to the estimated written premium to determine earned premium for each quarter. The inputs to the internal model are based on Company specific data due to the lack of observable market inputs. Reserves for losses are the most significant unobservable input. An increase in reserves for losses would normally result in a decrease in the fair value of the Loan Notes while a decrease in reserves would normally result in an increase in the fair value of the Loan Notes. The observable and unobservable inputs used to determine the fair value of the Loan Notes as at September 30, 2017 and December 31, 2016 are presented in the tables below:

<u>As at September 30, 2017</u>	<u>Fair Value Level 3</u>	<u>Valuation Method</u>	<u>Observable (O) and Unobservable (U) inputs</u>	<u>Low</u>	<u>High</u>
	(\$ in millions)			(\$ in millions)	
Loan Notes	\$ 103.9 <sup>(1)</sup>	Internal Valuation Model	Gross premiums written (O)	\$ 50.1	\$ 57.6
			Reserve for losses (U)	\$ 4.2	\$ 37.5
			Contract period (O)	N/A	365 days
			Initial value of issuance (O)	\$ 325.0	\$ 325.0
<u>As at December 31, 2016</u>	<u>Fair Value Level 3</u>	<u>Valuation Method</u>	<u>Observable (O) and Unobservable (U) inputs</u>	<u>Low</u>	<u>High</u>
	(\$ in millions)			(\$ in millions)	
Loan Notes	\$ 223.4 <sup>(1)</sup>	Internal Valuation Model	Gross premiums written (O)	\$ 38.9	\$ 43.4
			Reserve for losses (U)	\$ 2.7	\$ 11.8
			Contract period (O)	N/A	365 days
			Initial value of issuance (O)	\$ 220.0	\$ 220.0

<sup>(1)</sup> The amounts classified within accrued expenses and other payables were \$2.4 million and \$108.4 million as at September 30, 2017 and December 31, 2016, respectively.

The observable and unobservable inputs represent the potential variation around the inputs used in the internal model. The contract period is defined in the respective Loan Notes agreements and the initial value represents the funds received from third parties. For further information regarding Silverton, refer to Note 7 of these unaudited condensed consolidated financial statements.

## 9. Reinsurance

The Company purchases retrocession and reinsurance to limit and diversify the Company's risk exposure and increase its own insurance and reinsurance underwriting capacity. These agreements provide for recovery of a portion of losses and loss adjustment expenses from reinsurers. As is the case with most reinsurance contracts, the Company remains liable to the extent that reinsurers do not meet their obligations under these agreements and therefore, in line with its risk management objectives, the Company evaluates the financial condition of its reinsurers and monitors concentrations of credit risk. The largest concentrations of un-collateralized reinsurance recoverables for unpaid losses as at September 30, 2017 were 9.4% (December 31, 2016 — 16.8%) with Munich Re which is rated AA- by S&P, 6.6% (December 31, 2016 — 12.8%) with Lloyd's Syndicates which are rated A+ by S&P and 2.5% (December 31, 2016 — 4.6%) with Axis which is rated A+ by S&P.

## 10. Derivative Contracts

The following tables summarize information on the location and amounts of derivative fair values on the consolidated balance sheet as at September 30, 2017 and December 31, 2016:

Derivatives Not Designated as Hedging Instruments Under ASC 815	Balance Sheet Location	As at September 30, 2017		As at December 31, 2016	
		Notional Amount	Fair Value	Notional Amount	Fair Value
		(\$ in millions)		(\$ in millions)	
Foreign Exchange Contracts	Derivatives at Fair Value	\$ 521.5	\$ 6.0 <sup>(1)</sup>	\$ 240.2	\$ 5.0
Foreign Exchange Contracts	Liabilities under Derivative Contracts	\$ 238.7	\$ (2.9)	\$ 425.4	\$ (17.7)

<sup>(1)</sup> Net of \$0.6 million cash collateral (December 31, 2016 — \$Nil).

Derivatives Designated as Hedging Instruments Under ASC 815	Balance Sheet Location	As at September 30, 2017		As at December 31, 2016	
		Notional Amount	Fair Value	Notional Amount	Fair Value
		(\$ in millions)		(\$ in millions)	
Foreign Exchange Contracts	Derivatives at Fair Value	\$ 27.3	\$ 2.4 <sup>(1)</sup>	\$ —	\$ 2.2
Foreign Exchange Contracts	Liabilities under Derivative Contracts	\$ —	\$ —	\$ 108.6	\$ (0.7)

<sup>(1)</sup> Net of \$Nil cash collateral (December 31, 2016 — \$2.2 million).

The following table provides the unrealized and realized gains/(losses) recorded in the statements of operations and other comprehensive income for derivatives that are not designated or designated as hedging instruments under ASC 815 - "Derivatives and Hedging" for the three and nine months ended September 30, 2017 and 2016.

	Location of Gain/(Loss) Recognized on Derivatives	Amount of Gain/(Loss) Recognized on Derivatives			
		Three Months Ended		Nine Months Ended	
		September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
<b>Derivatives not designated as hedges</b>		(\$ in millions)		(\$ in millions)	
Foreign Exchange Contracts	Change in Fair Value of Derivatives	4.5	0.6	25.2	(3.7)
Interest Rate Swaps	Change in Fair Value of Derivatives	—	—	—	(3.3)
<b>Derivatives designated as hedges</b>					
Foreign Exchange Contracts	General, administrative and corporate expenses	1.2	(3.1)	2.4	(5.6)
Foreign Exchange Contracts	Net change from current period hedged transactions	(0.4)	3.1	3.3	(1.9)

*Foreign Exchange Contracts.* The Company uses foreign exchange contracts to manage foreign currency risk. A foreign exchange contract involves an obligation to purchase or sell a specified currency at a future date at a price set at the time of the contract. Foreign exchange contracts will not eliminate fluctuations in the value of the Company's assets and liabilities denominated in foreign currencies but rather allow it to establish a rate of exchange for a future point in time.

As at September 30, 2017, the Company held foreign exchange contracts that were not designated as hedging under ASC 815 with an aggregate notional value of \$760.2 million (December 31, 2016 — \$665.6 million). The foreign exchange contracts are recorded as derivatives at fair value with changes recorded as a change in fair value of derivatives in the statement of operations. For the three and nine months ended September 30, 2017, the impact of foreign exchange contracts on net income was a gain of \$4.5 million (September 30, 2016 — gain of \$0.6 million) and a gain of \$25.2 million (September 30, 2016 — loss of \$3.7 million), respectively.

As at September 30, 2017, the Company held foreign exchange contracts that were designated as hedging under ASC 815 with an aggregate nominal amount of \$27.3 million (December 31, 2016 — \$108.6 million). The foreign exchange contracts are recorded as derivatives at fair value in the balance sheet with the effective portion recorded in other comprehensive income and the ineffective portion recorded as a change in fair value of derivatives in the statement of operations. The contracts are considered to be effective and therefore the movement in other comprehensive income representing the effective portion for the three and nine months ended September 30, 2017 was a net unrealized loss of \$0.4 million (September 30, 2016 — gain of \$3.1 million) and a net unrealized gain of \$3.3 million (September 30, 2016 — loss of \$1.9 million), respectively.

As the foreign exchange contracts settle, the realized gain or loss is reclassified from other comprehensive income into general, administration and corporate expenses of the statement of operations and other comprehensive income. For the three and nine months ended September 30, 2017, the amount recognized within general, administrative and corporate expenses for settled foreign exchange contracts was a realized gain of \$1.2 million (September 30, 2016 — loss of \$3.1 million) and a net realized gain of \$2.4 million (September 30, 2016 — loss of \$5.6 million), respectively.

*Interest Rate Swaps.* In 2014, the Company decided to let its interest rate program roll-off and not renew maturing positions. This decision was made after an extensive reassessment of the costs of maintaining an interest rate swap program in a steep yield curve environment. In addition, the continued uncertainty in the global economy and low inflation make it difficult to gauge the timing and speed of interest rate rises by the Federal Reserve. On May 9, 2016, the Company terminated all remaining outstanding interest rate swaps (notional value of \$256.3 million) under its International Swap Dealers Association agreement.

As at September 30, 2017 and December 31, 2016, the Company no longer had outstanding interest rate swaps. There was no charge in respect of the interest rate swaps for the three and nine months ended September 30, 2017 (September 30, 2016 — no charge and a charge of \$3.3 million), respectively.

## 11. Deferred Policy Acquisition Costs

The following table represents a reconciliation of beginning and ending deferred policy acquisition costs for the three and nine months ended September 30, 2017 and 2016:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(\$ in millions)		(\$ in millions)	
Balance at the beginning of the period	\$ 364.6	\$ 409.1	\$ 358.4	\$ 361.1
Acquisition costs deferred	94.9	110.0	311.1	414.9
Amortization of deferred policy acquisition costs	(105.4)	(130.9)	(315.4)	(387.8)
Balance at the end of the period	\$ 354.1	\$ 388.2	\$ 354.1	\$ 388.2

## 12. Reserves for Losses and Loss Adjustment Expenses

The following table represents a reconciliation of beginning and ending consolidated loss and loss adjustment expenses (“LAE”) reserves for the nine months ended September 30, 2017 and 2016 and the twelve months ended December 31, 2016:

	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016	Twelve Months Ended December 31, 2016
	(\$ in millions)		
Provision for losses and LAE at the start of the year	\$ 5,319.9	\$ 4,938.2	\$ 4,938.2
Less reinsurance recoverable	(560.7)	(354.8)	(354.8)
Net loss and LAE at the start of the year	4,759.2	4,583.4	4,583.4
Net loss and LAE expenses assumed	(125.7)	5.7	(80.1)
Provision for losses and LAE for claims incurred:			
Current year	1,543.3	1,267.0	1,705.4
Prior years	(92.8)	(78.2)	(129.3)
Total incurred	1,450.5	1,188.8	1,576.1
Losses and LAE payments for claims incurred:			
Current year	(150.4)	(62.1)	(241.0)
Prior years	(947.7)	(853.1)	(981.8)
Total paid	(1,098.1)	(915.2)	(1,222.8)
Foreign exchange losses/(gains)	135.2	(35.9)	(97.4)
Net losses and LAE reserves at period end	5,121.1	4,826.8	4,759.2
Plus reinsurance recoverable on unpaid losses at period end	1,369.5	419.8	560.7
Provision for losses and LAE at the end of the relevant period	\$ 6,490.6	\$ 5,246.6	\$ 5,319.9

For the nine months ended September 30, 2017, there was a reduction of \$92.8 million in the Company’s estimate of the ultimate claims to be paid in respect of prior accident years compared to a reduction of \$78.2 million for the nine months ended September 30, 2016. The Company ceded \$125.7 million of reserves as part of an adverse development cover purchased in the third quarter of 2017. In the nine months ended September 30, 2016, the Company assumed \$5.7 million of additional loss reserves as a result of its acquisition of AG Logic Holdings, LLC and its subsidiaries (“AgriLogic”), a wholly owned specialist U.S. admitted crop intermediary with an integrated agricultural consultancy. The Company ceded \$85.8 million of reserves as part of an adverse development cover purchased during the twelve months ended December 31, 2016. For additional information on the reserve releases, please refer to “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Reserves for Losses and Loss Adjustment Expenses” below.

The following tables show an analysis of incurred claims and allocated loss adjustment expenses, net of reinsurance and cumulative paid claims and allocated claim adjustment expenses, net of reinsurance as at September 30, 2017, December 31, 2016, 2015, 2014, 2013 and 2012. The loss development triangles are derived from all business written by the Company. Although a limited number of contracts are written which have durations of greater than one year, the contracts do not meet the definition of a long duration contract.

<b>Insurance</b>								
<b>Incurred Claims, IBNR and Allocated Loss Adjustment Expenses, Net of Reinsurance</b>							<b>As at September 30, 2017</b>	
<b>Accident Year</b>	<b>For the Years Ended December 31, Unaudited Prior Years</b>						<b>Total of IBNR Plus Expected Development on Reported Claims</b>	<b>Cumulative Number of Reported Claims</b>
	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Q3 2017</b>		
	\$ (in millions)							
2012	606.9	628.4	657.6	671.8	656.7	637.0	47.2	15,825
2013		691.9	669.9	681.0	662.4	668.9	74.6	14,728
2014			758.1	732.7	704.8	686.2	109.7	18,848
2015				919.5	909.4	859.6	206.4	21,142
2016					912.7	876.3	316.0	20,538
2017						675.8	426.5	10,694
				Total		\$ 4,403.8		

<b>Insurance</b>						
<b>Cumulative Paid Claims and Allocated Loss Adjustment Expenses, Net of Reinsurance</b>						
<b>For the Years Ended December 31,</b>						
<b>Accident Year</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Q3 2017</b>
	(\$ in millions)					
2012	117.6	308.6	379.5	454.1	504.3	519.2
2013		91.1	255.3	365.9	456.2	503.1
2014			99.8	248.2	390.7	448.9
2015				119.5	328.0	459.5
2016					117.7	332.1
2017						59.9
					Total	\$ 2,322.7
						\$ 2,081.1
						140.3
						\$ 2,221.4

<b>Reinsurance</b>									
<b>Incurred Claims, IBNR and Allocated Loss Adjustment Expenses, Net of Reinsurance</b>								<b>As at September 30, 2017</b>	
<b>Accident Year</b>	<b>For the Years Ended December 31, Unaudited Prior Years</b>						<b>Q3 2017</b>	<b>Total of IBNR Plus Expected Development on Reported Claims</b>	<b>Cumulative Number of Reported Claims</b>
	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>				
\$ (in millions)									
2012	695.5	740.0	723.7	694.2	692.8	683.8	93.4	3,660	
2013		583.2	575.9	554.8	528.6	519.5	92.9	3,524	
2014			553.5	533.8	517.9	496.7	116.8	3,440	
2015				584.8	568.6	553.5	166.5	3,450	
2016					756.5	763.8	290.4	3,032	
2017						887.4	636.9	1,704	
						<b>Total</b>	<b>\$ 3,904.7</b>		

<b>Reinsurance</b>							
<b>Cumulative Paid Claims and Allocated Loss Adjustment Expenses, Net of Reinsurance</b>							
<b>For the Years Ended December 31,</b>							
<b>Accident Year</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Q3 2017</b>	
(\$ in millions)							
2012	63.6	249.3	362.2	416.3	460.6	491.0	
2013		63.6	188.2	280.7	322.6	354.7	
2014			57.2	173.5	249.6	281.8	
2015				57.7	172.8	254.1	
2016					127.0	297.4	
2017						90.5	
					<b>Total</b>	<b>\$ 1,769.5</b>	
All outstanding liabilities for 2012 and subsequent years, net of reinsurance							2,135.2
All outstanding liabilities before 2012, net of reinsurance							718.9
Liabilities for claims and claim adjustment expenses, net of reinsurance							<b>\$ 2,854.1</b>



	Nine Months Ended September 30, 2017	
	(\$ in millions)	
Net outstanding liabilities:		
Insurance lines	\$	2,221.4
Reinsurance lines		2,854.1
Net loss and LAE		5,075.5
Reinsurance recoverable on unpaid losses:		
Insurance lines		1,115.3
Reinsurance lines		254.2
Total reinsurance recoverable on unpaid losses		1,369.5
Insurance lines other than short-duration		—
Unallocated claims incurred		49.4
Other		(3.8)
	\$	45.6
Provision for losses and LAE at the end of the period	\$	6,490.6

#### Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance

Years	1	2	3	4	5
Insurance	14.4%	24.5%	15.9%	12.5%	7.6%
Reinsurance	11.8%	23.3%	16.2%	7.9%	6.4%

### 13. Capital Structure

The following table provides a summary of the Company's authorized and issued share capital as at September 30, 2017 and December 31, 2016:

	As at September 30, 2017		As at December 31, 2016	
	Number	\$ in Thousands	Number	\$ in Thousands
Authorized share capital:				
Ordinary Shares 0.15144558¢ per share	969,629,030	1,469	969,629,030	1,469
Non-Voting Shares 0.15144558¢ per share	6,787,880	10	6,787,880	10
Preference Shares 0.15144558¢ per share	100,000,000	152	100,000,000	152
Total authorized share capital		1,631		1,631
Issued share capital:				
Issued ordinary shares of 0.15144558¢ per share	59,407,323	90	59,774,464	91
Issued 7.401% preference shares of 0.15144558¢ each with a liquidation preference of \$25 per share	—	—	5,327,500	8
Issued 7.250% preference shares of 0.15144558¢ each with a liquidation preference of \$25 per share	—	—	6,400,000	10
Issued 5.95% preference shares of 0.15144558¢ each with a liquidation preference of \$25 per share	11,000,000	17	11,000,000	17
Issued 5.625% preference shares of 0.15144558¢ each with a liquidation preference of \$25 per share	10,000,000	15	10,000,000	15
Total issued share capital		122		140

Additional paid-in capital as at September 30, 2017 was \$951.8 million (December 31, 2016 — \$1,259.6 million). Additional paid-in capital includes the aggregate liquidation preferences of the Company's preference shares of \$525.0 million (December 31, 2016 — \$818.2 million) less issue costs of \$13.1 million (December 31, 2016 — \$21.1 million).

*Ordinary Shares.* The following table summarizes transactions in the Company's ordinary shares during the nine months ended September 30, 2017:

	<b>Number of Ordinary Shares</b>
Ordinary shares in issue as at December 31, 2016	59,774,464
<i>Ordinary share transactions in the nine months ended September 30, 2017</i>	
Ordinary shares issued to employees under the 2013 share incentive plan and/or 2008 share purchase plan	272,296
Ordinary shares issued to non-employee directors	9,504
Ordinary shares repurchased	(648,941)
Ordinary shares in issue as at September 30, 2017	<u>59,407,323</u>

*Share Repurchase Authorization Program.* On February 8, 2017, the Company's Board of Directors approved a new share repurchase authorization program of \$250.0 million. The new share repurchase authorization program, which was effective immediately and expires on February 8, 2019, permits the Company to effect the repurchases of its ordinary shares from time to time through a combination of transactions, including open market purchases, privately negotiated transactions and accelerated share repurchase transactions.

The Company acquired and canceled 451,268 and 648,941 ordinary shares for the three and nine months ended September 30, 2017, respectively. The total consideration paid for the three and nine months ended September 30, 2017 was \$20.0 million and \$30.0 million, respectively, and the average price per ordinary share for the three and nine months ended September 30, 2017 was \$44.32 and \$46.23, respectively. The Company acquired and canceled 144,289 and 1,122,328 ordinary shares for the three and nine months ended September 30, 2016, respectively. The total consideration paid for the three and nine months ended September 30, 2016 was \$6.5 million and \$50.0 million, respectively, and the average price per ordinary share for the three and nine months ended September 30, 2016 was \$45.17 and \$44.55, respectively.

*Preference Share Issuance and Redemption.* On September 20, 2016, the Company issued 10,000,000 shares of 5.625% Perpetual Non-Cumulative Preference Shares (the "5.625% Preference Shares"). The 5.625% Preference Shares have a liquidation preference of \$25 per share. Net proceeds were \$241.3 million, comprising \$250.0 million of total liquidation preference less \$8.7 million of issuance expenses. The Company used a portion of the net proceeds from the offering to redeem the Company's outstanding 7.401% Perpetual Non-Cumulative Preference Shares on January 3, 2017 and used a portion of the net proceeds from the offering to redeem the 7.250% Perpetual Non-Cumulative Preference Shares on July 3, 2017. The 5.625% Preference Shares rank equally with preference shares previously issued by the Company and have no fixed maturity date. The Company may redeem all or a portion of the 5.625% Preference Shares at a redemption price of \$25 per share on or after January 1, 2027. The 5.625% Preference Shares are listed on the NYSE under the symbol "AHLPRD".

#### **14. Share-Based Payments**

The Company has issued options and other equity incentives under three arrangements: employee incentive plans, a non-employee director plan and employee share purchase plans. When options are exercised or other equity awards vest, new ordinary shares are issued because the Company does not currently hold treasury shares.

*Employee and Non-Employee Director Awards.* Employee options and other stock awards were granted under the Aspen 2003 Share Incentive Plan, as amended (the "2003 Share Incentive Plan"), prior to April 24, 2013 and thereafter under the 2013 Share Incentive Plan, as amended (the "2013 Share Incentive Plan"). The total number of ordinary shares that may be issued under the 2013 Share Incentive Plan is 2,845,683 ordinary shares, which includes 595,683 ordinary shares available to grant under the 2003 Share Incentive Plan as of February 25, 2013. The number of ordinary shares that may be issued under the 2013 Share Incentive Plan is adjusted per the number of awards that may be forfeited under the 2003 Share Incentive Plan. The non-employee director awards were granted under the 2006 Stock Option Plan for Non-Employee Directors prior to April 21, 2016 and thereafter under the 2016 Stock Option Plan for Non-Employee Directors, as amended (the "2016 Non-Employee Director Plan"). The total number of ordinary shares that may be issued under the 2016 Non-Employee Director Plan is 263,695.

Employee stock options are granted with an exercise price equivalent to the fair value of the ordinary share on the grant date. The weighted average value at grant date is determined using the Black-Scholes option pricing model. Stock options typically vest over a three-year period with a ten-year exercise period with vesting dependent on time and performance conditions established at the time of grant. No stock options were granted or exercised during the nine months ended September 30, 2017 (2016 — Nil)

and no ordinary shares were issued in the nine months ended September 30, 2017 (2016 — 29,222 ordinary shares). No charges against income were made in respect of stock options for the nine months ended September 30, 2017 (2016 — \$Nil).

Restricted share units (“RSUs”) granted to employees typically vest over a two or three-year period subject to the employee's continued service. Some of the RSUs vest at year-end, while others vest on the anniversary of the date of grant or when the Compensation Committee of the Board of Directors agrees to deliver the RSUs. The fair value of the RSUs is based on the closing price on the date of the grant less a deduction for illiquidity, and is expensed through the income statement evenly over the vesting period. In the nine months ended September 30, 2017, the Company granted 200,021 RSUs (2016 — 328,551) to its employees. Compensation costs charged against income in respect of RSUs granted to employees for the nine months ended September 30, 2017 were \$7.2 million (2016 — \$7.2 million).

In the case of non-employee directors, generally one-twelfth of the RSUs vest on each one month anniversary of the date of grant, with 100% of the RSUs vesting on the first anniversary of the date of grant, or on the date of departure of a director for the amount vested through such date. On February 8, 2017 (with a grant date of February 10, 2017), the Board of Directors approved a total of 22,230 RSUs for non-employee directors (February 8, 2016 — 24,456 RSUs) and 8,892 RSUs for the Chairman of the Board of Directors (February 8, 2016 — 10,952 RSUs). Compensation costs charged against income in respect of RSUs granted to non-employee directors for the nine months ended September 30, 2017 were \$1.1 million (2016 — \$1.1 million).

The total fair value adjustment for all RSUs for the nine months ended September 30, 2017 was \$Nil due to the introduction of a new accounting standard which removed the requirement to fair value the RSU grants. The total fair value adjustment for all RSUs for the nine months ended September 30, 2016 was \$0.6 million. The total tax credit recognized by the Company in relation to RSUs in the nine months ended September 30, 2017 was \$1.7 million (2016 — \$1.7 million).

*Performance Shares.* During the nine months ended September 30, 2017, the Company granted 216,878 performance shares to its employees (2016 — 278,477). The performance shares are subject to a three-year vesting period with a separate annual diluted book value per share (“BVPS”) growth test for each year, adjusted to add back ordinary dividends. One-third of the grant is eligible for vesting each year based on a formula and the performance shares are only issuable at the end of the three-year period.

If the diluted BVPS growth achieved in 2017 is:

- less than 5.00%, then the portion of the performance shares subject to the vesting conditions in such year will be forfeited (i.e., one-third of the initial grant);
- between 5.00% and 10.00%, then the percentage of the performance shares eligible for vesting in such year will be between 10% and 100% on a straight-line basis; or
- between 10.00% and 20.00%, then the percentage of the performance shares eligible for vesting in such year will be between 100% and 200% on a straight-line basis.

In calculating BVPS for 2017, the entire movement in AOCI will be excluded. Interest rate movements and credit spread movements in AOCI can be fairly significant and impact growth in BVPS which management does not have any control over. The Compensation Committee will review the impact of any capital management actions undertaken during 2017, including share repurchases and special dividends, and consider whether any further adjustments to growth in BVPS should be made in the context of such actions. The calculation of BVPS for 2017 will likewise exclude all transactional expenses incurred in connection with any transaction which, if consummated, would result in a change in control, including without limitation the cost of defending against any such transaction and any third-party legal and advisory costs. The calculation of BVPS for 2017 will likewise exclude the impact of amortization of goodwill/intangibles resulting from any corporate acquisitions. The Compensation Committee believes that it would not be appropriate for employees’ performance-related remuneration to be impacted by these costs.

The Compensation Committee will determine the vesting conditions for the 2018 and 2019 portions of the grant in such years taking into consideration the market conditions and the Company’s business plans at the commencement of the years concerned. Notwithstanding the vesting criteria for each given year, if the shares eligible for vesting in 2018 and 2019 are greater than 100% for the portion of such year’s grant and the average diluted BVPS growth over such year and the preceding year is less than the average of the minimum vesting thresholds for such year and the preceding year, then only 100% (and no more) of the ordinary shares that are eligible for vesting in such year shall vest. Notwithstanding the foregoing, if in the judgment of the Compensation Committee the main reason for the BVPS metric in the earlier year falling below the minimum threshold is due to the impact of rising interest rates and bond yields, then the Compensation Committee may, in its discretion, disapply this limitation on 100% vesting.

The fair value of performance share awards is based on the value of the closing ordinary share price on the date of the grant less a deduction for illiquidity and expected dividends which would not accrue during the vesting period. Compensation costs charged against income in the nine months ended September 30, 2017 in respect of performance shares were \$0.4 million (2016 —

\$2.5 million). This reduction is due to a decrease in the expected vesting for 2017. The total tax recognized by the Company in relation to performance shares in the nine months ended September 30, 2017 was a tax credit of \$0.1 million (2016 — \$0.5 million).

*Phantom Shares.* During the nine months ended September 30, 2017, the Compensation Committee approved the grant of 173,619 phantom shares to its employees (2016 — 147,513). The phantom shares are subject to a three-year vesting period with a separate annual diluted BVPS growth test for each year, in accordance with the test described above for the 2017 performance shares, with the difference being that any vested amount is paid in cash in lieu of ordinary shares. As ordinary shares are not issued, the phantom shares have no dilutive effect.

The fair value of the phantom shares is based on the closing ordinary share price on the date of the grant less a deduction for illiquidity. The fair value is expensed through the consolidated income statement evenly over the vesting period, but as the payment to beneficiaries will ultimately be in cash rather than ordinary shares, an adjustment is required each quarter to revalue the accumulated liability to the balance sheet date fair value. Compensation costs charged against income in the nine months ended September 30, 2017 in respect of phantom shares were \$0.7 million (2016 — \$0.8 million) with a fair value reduction for the nine months ended September 30, 2017 of \$1.8 million (2016 — increase of \$3.8 million). The total tax credit recognized by the Company in relation to phantom shares in the nine months ended September 30, 2017 was \$0.2 million (2016 — \$0.6 million).

*Employee Share Purchase Plans.* On April 30, 2008, the shareholders of the Company approved the Employee Share Purchase Plan, the 2008 Sharesave Scheme and the International Employee Share Purchase Plan (collectively, the “ESPP”), which are implemented by a series of consecutive offering periods as determined by the Board of Directors. In respect of the Employee Share Purchase Plan and the International Employee Share Purchase Plan, employees can save up to \$500 per month over a two-year period, at the end of which they are eligible to purchase the Company’s ordinary shares at a discounted price. In respect of the 2008 Sharesave Scheme, employees can save up to £500 per month over a three-year period, at the end of which they are eligible to purchase the Company’s ordinary shares at a discounted price. Employees can purchase the Company’s ordinary shares at a discounted price equivalent to eighty-five percent (85%) of the fair market value of the ordinary shares on the offering date which may be adjusted upon changes in capitalization of the Company. Under the ESPP, 10,545 ordinary shares were exercised and issued during the nine months ended September 30, 2017 (2016 — 13,342). Compensation costs charged against income in the nine months ended September 30, 2017 in respect of the ESPP were \$0.3 million (2016 — \$0.3 million).

## 15. Intangible Assets and Goodwill

The following table provides a summary of the Company's intangible assets for the three and nine months ended September 30, 2017 and 2016:

	Three Months Ended September 30, 2017				Three Months Ended September 30, 2016			
	Beginning of the Period	Additions	Amortization	End of the Period	Beginning of the Period	Additions	Amortization	End of the Period
	(\$ in millions)				(\$ in millions)			
<b>Intangible Assets</b>								
Trade Mark	\$ 6.3	\$ —	\$ (0.3)	\$ 6.0	\$ 5.4	\$ —	\$ (0.1)	\$ 5.3
Insurance Licenses	16.7	—	—	16.7	16.6	—	—	16.6
Agency Relationships	25.1	—	(0.5)	24.6	24.2	—	(0.4)	23.8
Non-compete Agreements	3.0	—	(0.3)	2.7	2.6	—	(0.1)	2.5
Value of Business Acquired	—	—	—	—	0.2	—	(0.2)	—
Consulting Relationships	0.8	—	(0.1)	0.7	0.9	—	—	0.9
Goodwill	26.0	—	—	26.0	22.1	—	—	22.1
Renewal Rights	1.5	—	(0.1)	1.4	—	1.9	—	1.9
<b>Total</b>	<b>\$ 79.4</b>	<b>\$ —</b>	<b>\$ (1.3)</b>	<b>\$ 78.1</b>	<b>\$ 72.0</b>	<b>\$ 1.9</b>	<b>\$ (0.8)</b>	<b>\$ 73.1</b>

	Nine Months Ended September 30, 2017				Nine Months Ended September 30, 2016			
	Beginning of the Period	Additions	Amortization	End of the Period	Beginning of the Period	Additions	Amortization	End of the Period
	(\$ in millions)				(\$ in millions)			
<b>Intangible Assets</b>								
Trade Mark	\$ 6.6	\$ —	\$ (0.6)	\$ 6.0	\$ 1.6	\$ 4.0	\$ (0.3)	\$ 5.3
Insurance Licenses	16.7	—	—	16.7	16.6	—	—	16.6
Agency Relationships	26.2	—	(1.6)	24.6	—	25.0	(1.2)	23.8
Non-compete Agreements	3.3	—	(0.6)	2.7	—	2.9	(0.4)	2.5
Value of Business Acquired	—	—	—	—	—	1.8	(1.8)	—
Consulting Relationships	0.9	—	(0.2)	0.7	—	1.0	(0.1)	0.9
Goodwill	24.2	1.8	—	26.0	—	22.1	—	22.1
Renewal Rights	1.7	—	(0.3)	1.4	—	1.9	—	1.9
<b>Total</b>	<b>\$ 79.6</b>	<b>\$ 1.8</b>	<b>\$ (3.3)</b>	<b>\$ 78.1</b>	<b>\$ 18.2</b>	<b>\$ 58.7</b>	<b>\$ (3.8)</b>	<b>\$ 73.1</b>

### AgriLogic

On January 19, 2016, Aspen U.S. Holdings acquired 100% of the equity voting interest of AgriLogic, a specialist U.S. crop managing general agency business with an integrated agricultural consultancy, for an initial purchase price of \$53.0 million. In addition, the Company recognized \$14.1 million of contingent consideration, with a total maximum payable of \$22.8 million, subject to the future performance of the business and \$2.0 million of ceding commission. The total consideration for the acquisition was \$69.1 million.

A significant proportion of the acquired business was represented by intangible assets, specifically \$25.0 million for agency relationships, \$4.0 million for the right to use the AgriLogic trademark, \$2.9 million for non-compete agreements, \$1.8 million for the value of business acquired and \$1.0 million for consultancy relationships. In addition, \$12.0 million of software was acquired and is recognized in the balance sheet under office properties and equipment along with \$0.3 million of residual net assets. The total net assets acquired of \$47.0 million resulted in the Company recognizing a total of \$22.1 million in goodwill for the acquisition of AgriLogic, \$34.0 million of intangible assets and \$21.0 million of goodwill are eligible for tax deduction over the next 15 years.

*License to use the “AgriLogic” Trademark.* The Company acquired the right to use the AgriLogic trademark in the United States. The Company valued the trademark at \$4.0 million with an estimated economic useful life of 10 years. The Company will amortize the estimated value of the trademark over its estimated useful life.

*Agency Relationships.* The Company valued the agency relationships at \$25.0 million with an estimated economic useful life of 15 years. The Company will amortize the estimated value of the agency relationships over their estimated useful life.

*Non-compete Agreements.* The Company valued the non-compete agreements at \$2.9 million with an estimated economic useful life of 5 years. The Company will amortize the estimated value of the non-compete agreements over their estimated useful life.

*Value of Business Acquired.* The Company recognized a \$1.8 million asset for value of business acquired (“VOBA”) consisting of the inforce unearned premium reserve and claims reserves at fair value. The Company will amortize the VOBA in line with the unwinding of the acquired unearned premium balances and loss reserves. Given the short tail nature of AgriLogic’s business, the VOBA was fully amortized in 2016.

*Consulting Relationships.* The Company valued the consulting relationships at \$1.0 million with an estimated economic useful life of 10 years. The Company will amortize the estimated value of the consulting relationships over their estimated useful life.

*Goodwill.* The Company valued the goodwill at \$22.1 million. The goodwill is deemed to have an indefinite useful life and will be assessed for impairment annually.

## **Blue Waters**

On October 31, 2016, Acorn acquired 100% of the equity voting interest of Blue Waters, a specialist marine insurance agency. The total consideration for the acquisition was \$8.0 million.

A significant proportion of the acquired business was represented by intangible assets, specifically \$3.1 million for agency relationships, \$1.5 million for the right to use the Blue Waters trademark, \$1.0 million for non-compete agreements and \$0.05 million for the value of trading licenses. In addition, \$0.3 million of residual net assets were acquired. The total net assets acquired of \$5.75 million resulted in the Company recognizing a total of \$2.1 million in goodwill for the acquisition of Blue Waters.

*Agency Relationships.* The Company valued the agency relationships at \$3.1 million with an estimated economic useful life of 5 years. The Company will amortize the estimated value of the agency relationships over their estimated useful life.

*License to use the “Blue Waters” Trademark.* The Company acquired the right to use the Blue Waters trademark in the United States. The Company valued the trademark at \$1.5 million with an estimated economic useful life of 5 years. The Company will amortize the estimated value of the trademark over its estimated useful life.

*Non-compete Agreements.* The Company valued the non-compete agreements at \$1.0 million with an estimated economic useful life of 5 years. The Company will amortize the estimated value of the non-compete agreements over their estimated useful life.

*Insurance Licenses.* The Company valued the insurance licenses at \$0.05 million. The insurance licenses are considered to have an indefinite useful life and are not amortized. The licenses are tested annually for impairment.

*Goodwill.* The Company valued the goodwill at \$2.1 million. The goodwill is deemed to have an indefinite useful life and will be assessed for impairment annually.

## **Other Intangible Assets**

*Renewal Rights.* On September 22, 2016, the Company entered into a renewal rights agreement with Liberty Specialty Markets Limited (“LSML”). The Company valued the renewal rights at \$1.9 million with an estimated economic useful life of 5 years. The Company will amortize the estimated value of the renewal rights over the estimated useful life.

In addition to the intangible assets and goodwill associated with the AgriLogic and Blue Waters acquisitions and the renewal rights agreement with LSML, the Company has the following intangible assets from prior transactions:

*License to use the “Aspen” Trademark.* On April 5, 2005, the Company entered into an agreement with Aspen (Actuaries and Pension Consultants) Plc to acquire the right to use the Aspen trademark in the United Kingdom. The consideration paid was approximately \$1.6 million. As at September 30, 2017, the value of the license to use the Aspen trademark was \$1.6 million (December 31, 2016 — \$1.6 million). The trademark has an indefinite useful life and is tested for impairment annually or when events or changes in circumstances indicate that the asset might be impaired.

*Insurance Licenses.* The total value of the Company’s licenses as at September 30, 2017 was \$16.6 million (December 31, 2016 — \$16.6 million). This includes \$10.0 million of acquired licenses held by AAIC, \$4.5 million of acquired licenses held by Aspen Specialty and \$2.1 million of acquired licenses held by Aspen U.K. The insurance licenses are considered to have an

indefinite life and are not amortized. The licenses are tested for impairment annually or when events or changes in circumstances indicate that the asset might be impaired.

*Goodwill.* On January 1, 2017, the Company purchased through its wholly-owned subsidiary, Aspen U.S. Holdings, a 49% share of Digital Re. The Company valued the goodwill at \$1.8 million. The goodwill is deemed to have an indefinite useful life and will be assessed for impairment annually under the provisions of ASC 323-10-35.

## 16. Commitments and Contingent Liabilities

### (a) Restricted assets

The Company is obliged by the terms of its contractual obligations to specific policyholders and by obligations to certain regulatory authorities to facilitate issue of letters of credit or maintain certain balances in deposits and trust funds for the benefit of policyholders. The following table details the forms and value of the Company's restricted assets as at September 30, 2017 and December 31, 2016:

	<u>As at September 30, 2017</u>	<u>As at December 31, 2016</u>
	(\$ in millions, except percentages)	
<b>Regulatory trusts and deposits:</b>		
Affiliated transactions	\$ 1,438.7	\$ 1,482.8
Third party	2,404.3	2,380.8
Letters of credit / guarantees	694.6	672.1
<b>Total restricted assets</b>	<b>\$ 4,537.6</b>	<b>\$ 4,535.7</b>
Total as percent of investable assets <sup>(1)</sup>	51.9%	49.3%

<sup>(1)</sup> Investable assets comprise total investments, cash and cash equivalents, accrued interest, receivables for securities sold and payables for securities purchased.

*Funds at Lloyd's.* AUL operates at Lloyd's as the corporate member for Syndicate 4711. Lloyd's determines Syndicate 4711's required regulatory capital principally through the syndicate's annual business plan. Such capital, called Funds at Lloyd's, consists of investable assets as at September 30, 2017 in the amount of \$458.0 million (December 31, 2016 — \$447.3 million).

The amounts provided as Funds at Lloyd's are drawn upon and become a liability of the Company in the event Syndicate 4711 declares a loss at a level that cannot be funded from other resources, or if Syndicate 4711 requires funds to cover a short term liquidity gap. The amount which the Company provides as Funds at Lloyd's is not available for distribution to the Company for the payment of dividends. Aspen Managing Agency Limited, the managing agent to Syndicate 4711, is also required by Lloyd's to maintain a minimum level of capital which as at September 30, 2017 was £0.4 million (December 31, 2016 — £0.4 million). This is not available for distribution by the Company for the payment of dividends.

*Credit Agreement.* On March 27, 2017, Aspen Holdings and certain of its direct or indirect subsidiaries (collectively, the "Borrowers") entered into a Second Amended and Restated Credit Agreement (the "Credit Agreement") with various lenders and Barclays Bank plc, as administrative agent. The Credit Agreement will be used by the Borrowers to finance the working capital needs of the Company and its subsidiaries, for letters of credit in connection with the insurance and reinsurance businesses of the Company and its subsidiaries and for other general corporate purposes. Initial availability under the Credit Agreement is \$200,000,000 and the Company has the option (subject to obtaining commitments from acceptable lenders) to increase the Credit Agreement by up to \$100,000,000. The Credit Agreement will expire on March 27, 2022.

As at September 30, 2017, no borrowings were outstanding under the Credit Agreement. The fees and interest rates on the loans and the fees on the letters of credit payable by the Borrowers under the Credit Agreement are based upon the credit ratings for the Company's long-term unsecured senior debt by S&P and Moody's. In addition, the fees for a letter of credit vary based upon whether the applicable Borrower has provided collateral (in the form of cash or qualifying debt securities) to secure its reimbursement obligations with respect to such letter of credit.

Under the Credit Agreement, the Company must not permit (a) consolidated tangible net worth to be less than approximately \$2,323,100,000 plus 25% of consolidated net income plus 25% of aggregate net cash proceeds from the issuance by the Company of its capital stock, in each case after January 1, 2017, (b) the ratio of its total consolidated debt to the sum of such debt plus its consolidated tangible net worth to exceed 35% or (c) any material insurance subsidiary to have a financial strength rating of less than B++ from A.M. Best. The Credit Agreement contains other customary affirmative and negative covenants, including (subject to various exceptions) restrictions on the ability of the Company and its subsidiaries to incur indebtedness, create or permit liens on their assets, engage in mergers or consolidations, dispose of assets, pay dividends or other distributions, purchase or redeem the Company's equity securities, make investments and enter into transactions with affiliates. In addition, the Credit Agreement has customary events of default, including (subject to certain materiality thresholds and grace periods) payment default, failure

to comply with covenants, material inaccuracy of representation or warranty, bankruptcy or insolvency proceedings, change of control and cross-default to other debt agreements.

*Other Credit Facilities.* On June 30, 2016, Aspen Bermuda and Citibank Europe plc (“Citi Europe”) amended the committed letter of credit facility, dated June 30, 2012, as amended on June 30, 2014 (the “LOC Facility”). The amendment to the LOC facility extends the term of the LOC Facility to June 30, 2018 and provides a maximum aggregate amount of up to \$550.0 million. Under the LOC Facility, Aspen Bermuda will pay to Citi Europe (a) a letter of credit fee based on the available amounts of each letter of credit and (b) a commitment fee, which varies based upon usage, on the unutilized portion of the LOC Facility. Aspen Bermuda will also pay interest on the amount drawn by any beneficiary under the LOC Facility at a rate per annum of LIBOR plus 1% (plus reserve asset costs, if any) from the date of drawing until the date of reimbursement by Aspen Bermuda. In addition, Aspen Bermuda and Citi Europe entered into an uncommitted letter of credit facility whereby Aspen Bermuda has the ability to request letters of credit under this facility subject to the prior approval of Citi Europe. The fee associated with the uncommitted facility is a letter of credit fee based on the available amounts of each letter of credit issued under the uncommitted facility. Both the LOC Facility and the uncommitted facility are used to secure obligations of Aspen Bermuda to its policyholders. In addition to these facilities, we also use regulatory trusts to secure our obligations to policyholders.

The terms of a pledge agreement between Aspen Bermuda and Citi Europe (pursuant to an assignment agreement dated October 11, 2006) dated January 17, 2006, as amended, were also amended on June 30, 2014 to change the types of securities or other assets that are acceptable as collateral under the New LOC Facility. All other agreements relating to Aspen Bermuda’s LOC Facility, which now apply to the New LOC Facility with Citi Europe, as previously filed with the SEC, remain in full force and effect. As at September 30, 2017, we had \$444.2 million of outstanding collateralized letters of credit under the New LOC Facility (December 31, 2016 — \$449.4 million under the LOC Facility).

**(b) Operating leases**

Amounts outstanding under operating leases net of subleases as at September 30, 2017 were:

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>Later Years</u>	<u>Total</u>
	(\$ in millions)						
Operating Lease Obligations	\$ 9.8	\$ 16.2	\$ 15.6	\$ 14.7	\$ 10.0	\$ 80.8	\$ 147.1

**(c) Contingent liabilities**

In common with the rest of the insurance and reinsurance industry, the Company is subject to litigation and arbitration in the ordinary course of business. The Company’s Operating Subsidiaries are regularly engaged in the investigation, conduct and defense of disputes, or potential disputes, resulting from questions of insurance or reinsurance coverage or claims activities. Pursuant to insurance and reinsurance arrangements, many of these disputes are resolved by arbitration or other forms of alternative dispute resolution. Such legal proceedings are considered in connection with estimating the Company’s Insurance Reserves — Loss and Loss Adjustment Expenses, as provided on the Company’s consolidated balance sheet.

In some jurisdictions, noticeably the U.S., a failure to deal with such disputes or potential disputes in an appropriate manner could result in an award of “bad faith” punitive damages against the Company’s Operating Subsidiaries. In accordance with ASC 450-20-50-4b, for (a) reasonably possible losses for which no accrual is made because any of the conditions for accrual in ASC 450-20-25-2 are not met and (b) reasonably possible losses in excess of the amounts accrued pursuant to ASC 450-20-30-1, the Company will provide an estimate of the possible loss or range of possible loss or state that such an estimate cannot be made.

As at September 30, 2017 and December 31, 2016, based on available information, it was the opinion of the Company’s management that the probability of the ultimate resolution of pending or threatened litigation or arbitrations having a material effect on the Company’s financial condition, results of operations or liquidity would be remote.



## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following is a discussion and analysis of our financial condition and results of operations for the three and nine months ended September 30, 2017 and 2016. This discussion and analysis should be read in conjunction with the unaudited condensed consolidated financial statements and related notes contained in this report and the audited consolidated financial statements and related notes for the fiscal year ended December 31, 2016, as well as the discussions of critical accounting policies, contained in our Audited Consolidated Financial Statements in our 2016 Annual Report on Form 10-K filed with the SEC.

Some of the information contained in this discussion and analysis or set forth elsewhere in this report, including information with respect to our plans and strategy for our business and in "Outlook and Trends" below, includes forward-looking statements that involve risks and uncertainties. Please see the section captioned "Cautionary Statement Regarding Forward-Looking Statements" in this report and the "Risk Factors" in this report and in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2016 and Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017 for more information on factors that could cause actual results to differ materially from the results described in, or implied by, any forward-looking statements contained in this discussion and analysis.

### Overview

We are a Bermuda holding company and write insurance and reinsurance business through our subsidiaries principally in Bermuda, the United Kingdom and the United States.

Key results for the three and nine months ended September 30, 2017 include:

- Gross written premiums of \$852.5 million for the third quarter of 2017, an increase of 11.7% from the third quarter of 2016. Gross written premiums in reinsurance increased by 17.9% mainly due to an increase in property catastrophe reinsurance, specialty reinsurance and other property reinsurance lines. Gross written premiums in insurance increased by 5.9% due to growth in financial and professional lines and growth in property and casualty insurance, offsetting reductions in our marine, aviation and energy insurance lines;
- There were \$360.3 million, or 55.9 combined ratio points, of pre-tax catastrophe losses net of reinsurance recoveries and reinstatement premiums in the third quarter of 2017 compared with \$24.9 million, or 3.7 combined ratio points, of pre-tax catastrophe losses net of reinsurance recoveries in the third quarter of 2016;
- Net favorable development on prior year loss reserves of \$17.9 million for the third quarter of 2017 had a favorable impact of 2.8 percentage points on the combined ratio, compared with a net favorable development on prior year loss reserves of \$35.4 million in the third quarter of 2016, which had a favorable impact of 5.2 percentage points on the combined ratio;
- Combined ratio of 152.2% for the third quarter of 2017 compared with a combined ratio of 94.8% for the third quarter of 2016. The increase in the combined ratio was mainly due to a \$335.4 million increase in catastrophe losses net of reinsurance recoveries and reinstatement premiums, a \$17.5 million decrease in net favorable reserve development and a \$132.0 million increase in ceded earned reinsurance which reduced net earned premiums and increased the expense ratio by 1.9 percentage points;
- Realized and unrealized foreign exchange gains of \$8.4 million for the third quarter of 2017 compared with gains of \$10.8 million in the third quarter of 2016 predominantly due to changes in exchange rates between the U.S. Dollar and the Euro and British Pound;
- Realized and unrealized investment gains of \$17.5 million for the third quarter of 2017 compared with gains of \$21.5 million in the third quarter of 2016 due to mark to market changes in the valuation of our equity and fixed income trading portfolios;
- Diluted net loss per ordinary share of \$4.48 for the quarter ended September 30, 2017 compared with diluted net income per ordinary share of \$1.40 for the third quarter of 2016;
- Annualized net (loss)/income return on average ordinary shareholders' equity of (37.6)% for the third quarter of 2017 compared with 11.2% for the third quarter of 2016; and
- Diluted book value per ordinary share<sup>(1)</sup> of \$44.00 as at September 30, 2017, a 5.8% reduction from December 31, 2016. The decrease was primarily due to third quarter catastrophes losses and a \$36.8 million net loss in foreign currency translation, partially offset by \$13.8 million of net unrealized gains on investments, net of taxes, recognized through accumulated other comprehensive income.

<sup>(1)</sup> Diluted book value per ordinary share is based on total shareholders' equity less preference shares (liquidation preference less issue expenses) and non-controlling interest, divided by the total number of issued and potentially dilutive ordinary shares at the end of the period.

Total shareholders' equity decreased by \$458.0 million to \$3,162.9 million during the three months ended September 30, 2017. The most significant movements were:

- a \$282.1 million decrease in retained earnings for the period, primarily due to the underwriting loss incurred in the period;
- a \$12.7 million reduction in accumulated other comprehensive income which included a \$2.6 million net loss in foreign currency translation;
- the repurchase of 451,268 ordinary shares for \$20.0 million; and
- a \$160.0 million charge to redeem 6,400,000 7.250% Perpetual Non-Cumulative Preference Shares, with a liquidation preference of \$25 per share.

Ordinary shareholders' equity as at September 30, 2017 and December 31, 2016 were:

	<u>As at September 30, 2017</u>	<u>As at December 31, 2016</u>
	(\$ in millions, except for share amounts)	
Total shareholders' equity	\$ 3,162.9	\$ 3,648.3
Preference shares less issue expenses	(511.9)	(797.1)
Non-controlling interests	(2.2)	(1.4)
Net assets attributable to ordinary shareholders	<u>\$ 2,648.8</u>	<u>\$ 2,849.8</u>
Issued ordinary shares	59,407,323	59,774,464
Issued and potentially dilutive ordinary shares	60,200,021	61,001,071

### Outlook and Trends

Following the third quarter catastrophe losses and a prolonged period of rate reductions, we expect that the insurance and reinsurance markets will undergo a period of repricing, particularly in short tail lines. We expect that the vast majority of property and casualty lines in both insurance and reinsurance will experience rate increases. As a result of the expected repricing, we will reallocate capital to areas which we believe offer the best return expectations.

We recently launched a comprehensive program to enhance operating effectiveness and efficiency across our organization and enhance our market position (the "Program"). The Program is the result of a rigorous bottom-up operational review of our organization and is intended to allow us to be a more nimble organization with faster decision-making ability, a competitive expense ratio and the ability to serve our clients even better than we do today.

We expect the Program to deliver cumulative total expense savings of approximately \$160 million over the next three years. We expect to achieve approximately \$30 million of the savings in 2018, \$55 million in 2019 and \$75 million in 2020, after which run-rate savings are expected to be approximately \$80 million per year. We expect approximately 70% of the total expected savings to benefit our Insurance segment. We likewise expect to incur pre-tax charges of approximately \$95 million to implement the Program and achieve the expected savings, the majority of which we expect will be incurred in 2018 and 2019. Approximately \$50 million of this charge is for employee severance, benefits and related expenses, \$30 million for business transformation and Program costs, and \$15 million for outsourcing and premises. We also expect to spend a total of approximately \$55 million in incremental capital expenditure, primarily information technology, in 2018 and 2019 that we expect to be amortized over a period of three to five years from the start of 2020.

See "Risk Factors" and "Cautionary Statement Regarding Forward-Looking Statements" included in this report.

## Application of Critical Accounting Policies

Our unaudited condensed consolidated financial statements are based on the selection of accounting policies and require management to make significant estimates and assumptions. Some of the more critical judgments in the areas of accounting estimates and assumptions that affect our financial condition and results of operations are related to insurance reserves, premiums receivable in respect of assumed reinsurance, the fair value of derivatives and the value of investments, including the extent of any other-than-temporary impairment. There have been no changes to significant accounting policies from those disclosed in the Company's 2016 Annual Report on Form 10-K filed with the SEC. For a detailed discussion of our critical accounting policies, please refer to Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies" in our 2016 Annual Report on Form 10-K filed with the SEC and the notes to the unaudited condensed consolidated financial statements contained in this report.

## Results of Operations for the Three Months Ended September 30, 2017 Compared to the Three Months Ended September 30, 2016

The following is a discussion and analysis of our consolidated results of operations for the three months ended September 30, 2017 and 2016, starting with a summary of our consolidated results and followed by a segmental analysis.

### Total Income Statement

Our statements of operations consolidate the underwriting results of our two business segments and include certain other revenue and expense items that are not allocated to business segments.

*Gross written premiums.* Gross written premiums increased by \$89.0 million, or 11.7%, in the third quarter of 2017 compared to the third quarter of 2016. Gross written premiums from our reinsurance segment increased by \$65.6 million, or 17.9%, in the third quarter of 2017 compared to the third quarter of 2016 largely due to the recognition of reinstatement premiums in property catastrophe reinsurance and growth in agriculture insurance business written within specialty reinsurance. Gross written premiums from our insurance segment increased by \$23.4 million, or 5.9%, in the third quarter of 2017 compared to the third quarter of 2016 largely due to growth in financial and professional lines combined with growth in property and casualty insurance, offsetting reductions in marine, aviation and energy insurance lines.

The table below shows our gross written premiums and the percentage change in gross written premiums for each business segment for the three months ended September 30, 2017 and 2016:

<u>Business Segment</u>	<u>Three Months Ended</u>	<u>Three Months Ended</u>	<u>% increase/ (decrease)</u>
	<u>September 30, 2017</u>	<u>September 30, 2016</u>	
	<u>(\$ in millions)</u>	<u>(\$ in millions)</u>	
Reinsurance	\$ 431.5	\$ 365.9	17.9%
Insurance	421.0	397.6	5.9%
Total	<u>\$ 852.5</u>	<u>\$ 763.5</u>	11.7%

*Ceded reinsurance.* Total reinsurance ceded in the third quarter of 2017 was \$245.1 million, an increase of \$120.0 million from the third quarter of 2016. Ceded reinsurance costs increased by \$103.5 million in our insurance segment primarily due to the restructuring of our ceded reinsurance arrangements as we aim to reduce earnings volatility and benefit the expense ratio through an increase in over-rider commissions. Ceded reinsurance costs also increased in the insurance segment due to the recognition of ceded costs to reinstate cover following third quarter catastrophe losses. Ceded reinsurance costs increased by \$16.5 million in our reinsurance segment due to increased ceded reinsurance for our property catastrophe and other property business lines due to new business opportunities which were written in conjunction with an increase in retrocession. The changes in our reinsurance program reduced our retention ratio (defined as net written premium as a percentage of gross written premium) by 12.4 percentage points to 71.2% in the third quarter of 2017 compared to 83.6% in the third quarter of 2016.

*Net premiums earned.* Net premiums earned in the third quarter of 2017 decreased by 4.2% from the third quarter of 2016. Net premiums earned increased by 20.8% and decreased by 25.8% in our reinsurance and insurance segments, respectively. The reduction in net premiums earned was due to a \$132.0 million increase in ceded earned reinsurance premiums partially offset by a \$103.5 million increase in gross earned premiums.

*Losses and loss adjustment expenses.* The loss ratio for the quarter increased 61.8 percentage points from 57.2% in the third quarter of 2016 to 119.0% in the third quarter of 2017. The increase in the loss ratio was largely due to a \$347.9 million increase in catastrophe losses and a \$17.5 million decrease in net favorable development on prior year loss reserves.

In the reinsurance segment, the loss ratio for the three months ended September 30, 2017 was 131.5% compared to 56.5% in the equivalent period in 2016. The increase in the loss ratio for the quarter was largely due to a \$281.4 million increase in

catastrophe losses and a \$2.9 million decrease in prior year reserve releases. In the third quarter of 2017, we experienced \$296.2 million of catastrophe losses, net of reinsurance recoveries, including \$90.5 million from Hurricane Harvey, \$121.3 million from Hurricane Irma, \$50.8 million from Hurricane Maria, \$19.5 million from the earthquakes in Mexico and \$14.1 million from weather-related events in the U.S., Australia and Asia. The equivalent quarter of 2016 experienced \$14.8 million of natural catastrophe losses from weather-related events in the U.S. and a hailstorm in the Netherlands. Reserve releases for the current quarter and the comparative period in 2016 were a result of favorable development across all of reinsurance business lines.

In the insurance segment, the loss ratio increased to 101.3% in the third quarter of 2017 from 57.7% in the third quarter of 2016 largely due to a \$66.5 million increase in catastrophe losses, a \$14.6 million decrease in prior year reserve releases and a \$32.3 million increase in losses in short-tail insurance lines, primarily property. In the third quarter of 2017, we experienced \$76.6 million of natural catastrophe losses, net of reinsurance recoveries, including \$23.4 million from Hurricane Harvey, \$21.1 million from Hurricane Irma, \$15.2 million from Hurricane Maria and \$16.9 million from weather-related events in the U.S. We experienced \$10.1 million of natural catastrophe losses due to U.S. weather-related events in the equivalent quarter of 2016. Prior year reserve releases decreased from \$15.3 million in the third quarter of 2016 to \$0.7 million in the current period. Reserve releases in the current quarter were from our marine, aviation and energy business lines, partially offset by reserve strengthening in financial and professional lines and strengthening in property and casualty lines following the purchase of an adverse development cover. Reserve releases in the comparative quarter were principally from our marine, aviation and energy and financial and professional business lines. Further information relating to the movement of prior year reserves is found below under “Reserves for Losses and Loss Adjustment Expenses.”

We monitor the ratio of losses and LAE to net earned premium (the “loss ratio”) as a measure of relative underwriting performance where a lower ratio represents a better result than a higher ratio. The loss ratios for our two business segments for the three months ended September 30, 2017 and 2016 were as follows:

<b>Business Segment</b>	<b>Three Months Ended September 30, 2017</b>	<b>Three Months Ended September 30, 2016</b>
Reinsurance	131.5%	56.5%
Insurance	101.3%	57.7%
Total Loss Ratio	119.0%	57.2%

The tables below show our loss ratios including and excluding the impact from natural catastrophe losses to aid in the analysis of the underlying performance of our business segments. For this purpose, we have defined third quarter 2017 catastrophe losses as losses associated with Hurricanes Harvey, Irma and Maria, the earthquakes in Mexico and U.S., Australian and Asian weather-related events. We defined catastrophe losses in the third quarter of 2016 as losses associated with weather-related events in the U.S. and a hailstorm in the Netherlands. The total loss ratio represents the calendar year U.S. GAAP loss ratio. The current year adjustments represent the effect on the loss ratio of net losses and reinstatement premiums, if any, from catastrophe loss events.

	<b>Total Loss Ratio</b>	<b>Current Year Adjustments</b>	<b>Loss Ratio Excluding Current Year Adjustments</b>
<b>For the Three Months Ended September 30, 2017</b>			
Reinsurance	131.5%	(74.6)%	56.9%
Insurance	101.3%	(30.3)%	71.0%
Total	119.0%	(55.9)%	63.1%

	<b>Total Loss Ratio</b>	<b>Current Year Adjustments</b>	<b>Loss Ratio Excluding Current Year Adjustments</b>
<b>For the Three Months Ended September 30, 2016</b>			
Reinsurance	56.5%	(4.7)%	51.8%
Insurance	57.7%	(2.8)%	54.9%
Total	57.2%	(3.7)%	53.5%

*Expense ratio.* We monitor the ratio of expenses to net earned premium (the “expense ratio”) as a measure of the cost effectiveness of our amortization of deferred policy acquisition costs, general, administrative and corporate expenses. The table below splits the net expense ratio between the amortized deferred policy acquisition costs, general, administrative and corporate expenses and the effect of reinsurance for the three months ended September 30, 2017 and 2016:

<b>Ratios Based on Gross Earned Premium</b>	<b>Three Months Ended September 30, 2017</b>			<b>Three Months Ended September 30, 2016</b>		
	<b>Reinsurance</b>	<b>Insurance</b>	<b>Total</b>	<b>Reinsurance</b>	<b>Insurance</b>	<b>Total</b>
Gross policy acquisition expense ratio	15.0%	17.9 %	16.2%	16.5%	20.6%	18.1%
Effect of ceded reinsurance	1.1	(1.7)	—	0.3	0.8	1.1
Net policy acquisition expense ratio	16.1%	16.2 %	16.2%	16.8%	21.4%	19.2%
Gross general, administrative and corporate expense ratio <sup>(1)</sup>	7.1	13.2	12.1	13.0	13.0	15.4
Effect of ceded reinsurance premiums	1.5	8.8	4.9	2.0	2.9	3.0
Net general and administrative expense ratio	8.6%	22.0 %	17.0%	15.0%	15.9%	18.4%
Total net expense ratio	24.7%	38.2 %	33.2%	31.8%	37.3%	37.6%

<sup>(1)</sup> The total group general and administrative expense ratio includes corporate and non-operating expenses. Comparative ratios have been re-presented to include corporate and non-operating expenses.

The total policy acquisition expense ratio for the third quarter of 2017 decreased compared to the third quarter of 2016 as a result of an increase in over-rider commissions associated with increased ceded reinsurance and a reduction in the gross policy acquisition ratio due to a change in business mix in the reinsurance segment.

General, administrative and corporate expenses decreased by \$14.1 million from \$125.0 million in the third quarter of 2016 to \$110.9 million in the third quarter of 2017. The total general, administrative and corporate expense ratio, before the effect of reinsurance, for the third quarter of 2017 decreased by 3.3 percentage points from the third quarter 2016 predominantly due to a reduction in provisions for performance-related remuneration, most significantly in the reinsurance segment.

*Net investment income.* Net investment income for the third quarter of 2017 was \$46.4 million, unchanged from the third quarter of 2016.

*Change in fair value of derivatives.* In the three months ended September 30, 2017, we experienced a gain of \$4.5 million (2016 — gain of \$0.6 million) in respect of foreign exchange contracts not designated as hedging instruments and a gain of \$1.2 million (2016 — loss of \$3.1 million) in respect of foreign exchange contracts designated as hedging instruments.

*(Loss) / Income before tax.* In the third quarter of 2017, loss before tax was \$263.0 million (2016 — income of \$100.5 million) consisting of the amounts set out in the table below:

	<b>Three Months Ended September 30, 2017</b>	<b>Three Months Ended September 30, 2016</b>
	<b>(\$ in millions)</b>	
Underwriting (loss) income	\$ (321.3)	\$ 55.6
Corporate expenses	(13.5)	(13.4)
Amortization and non-recurring expenses	(5.2)	(6.3)
Net other (expense)/income	(2.2)	2.4
Net investment income	46.4	46.4
Change in fair value of derivatives	4.5	0.6
Change in fair value of loan notes issued by variable interest entities	9.8	(9.8)
Realized and unrealized investment gains	29.9	26.7
Realized and unrealized investment (losses)	(12.4)	(5.2)
Net realized and unrealized foreign exchange gains	8.4	10.8
Interest expense	(7.4)	(7.3)
(Loss) income before tax	\$ (263.0)	\$ 100.5

*Taxes.* Income tax credit for the three months ended September 30, 2017 was \$9.2 million (2016 — \$4.9 million expense) equating to an estimated effective tax rate of 3.5% (2016 — 4.9%). The tax rate for the three months ended September 30, 2016 benefited from an agreement with HMRC regarding deductions available for certain interest payments in prior periods. The effective tax rate for the year is subject to revision in future periods if circumstances change and depends on the relative profitability of those parts of business underwritten in Bermuda (where the rate of tax on corporate profits is zero), the United Kingdom (where the corporation tax rate is 19% and will be reduced to 17% effective April 1, 2020) and the United States (where the federal income tax rate is 35%).

*Net (loss) / income after tax.* Net loss after tax for the three months ended September 30, 2017 was \$253.8 million, equivalent to basic loss per ordinary share of \$4.48 adjusted for the \$7.7 million preference share dividends, \$5.6 million of costs in relation to the redemption of our 7.250% Preference Shares and \$0.6 million non-controlling interest. Basic and fully diluted loss per ordinary share was \$4.48 for the three months ended September 30, 2017. Net income after tax for the three months ended September 30, 2016 was \$95.6 million, equivalent to basic earnings per ordinary share of \$1.43 after deducting \$9.5 million preference share dividends and \$0.2 million non-controlling interest. Fully diluted earnings per ordinary share were \$1.40 for the three months ended September 30, 2016.

*Realized and unrealized investment gains.* Total realized and unrealized investment gains for the three months ended September 30, 2017 were \$17.5 million (2016 — \$21.5 million). For more detail, please refer to Note 6 of the unaudited condensed consolidated financial statements contained in this report.

*Other comprehensive income.* We recorded a \$3.1 million reduction in our total other comprehensive income for the three months ended September 30, 2017 (2016 — reduction of \$25.2 million), net of taxes. The reduction was mainly due to a \$2.6 million net unrealized loss in foreign currency translation (2016 — \$6.5 million net unrealized loss), a \$0.1 million net realized/unrealized loss in the available for sale investment portfolio (2016 — \$21.2 million net unrealized loss) and a \$0.4 million net reduction in the value of hedged foreign exchange contracts (2016 — \$2.5 million net change).

*Non-controlling interest.* In the three months ended September 30, 2017, we recorded an increase of \$0.6 million (2016 — \$0.2 million decrease) in the amount owed to the non-controlling interest in respect of Aspen Risk Management Limited.

*Dividends.* Dividends paid on our ordinary shares and preference shares in the three months ended September 30, 2017 were \$22.1 million (2016 — \$22.8 million). The quarterly dividend on our ordinary shares increased from \$0.22 per ordinary share to \$0.24 per ordinary share on April 26, 2017.

### Underwriting Results by Business Segments — Third Quarter

We are organized into two business segments: Reinsurance and Insurance. The reinsurance segment consists of property catastrophe reinsurance, other property reinsurance, casualty reinsurance and specialty reinsurance. The insurance segment consists of property and casualty insurance, marine, aviation and energy insurance and financial and professional lines insurance.

We have provided additional disclosures for corporate and other (non-operating) income and expenses in Note 5 of our unaudited condensed consolidated financial statements included in this report. Corporate and other income and expenses include net investment income, net realized and unrealized investment gains or losses, expenses associated with managing the group, certain strategic and non-recurring costs, changes in fair value of derivatives and changes in fair value of the loan notes issued by variable interest entities, interest expenses, net realized and unrealized foreign exchange gains or losses and income taxes, none of which are allocated to the business segments.

Please refer to the tables in Note 5 in our unaudited condensed consolidated financial statements of this report for a summary of gross and net written and earned premiums, underwriting results and combined ratios and reserves for our two business segments for the three months ended September 30, 2017 and 2016. The contributions of each business segment to gross written premiums in the three months ended September 30, 2017 and 2016 were as follows:

<b>Business Segment</b>	<b>Gross Written Premiums</b>			
	<b>Three Months Ended September 30, 2017</b>		<b>Three Months Ended September 30, 2016</b>	
	<b>(\$ in millions)</b>	<b>(% of total)</b>	<b>(\$ in millions)</b>	<b>(% of total)</b>
Reinsurance	\$ 431.5	50.6%	\$ 365.9	47.9%
Insurance	421.0	49.4	397.6	52.1
<b>Total</b>	<b>\$ 852.5</b>	<b>100.0%</b>	<b>\$ 763.5</b>	<b>100.0%</b>

### Reinsurance

The reinsurance segment consists of property catastrophe reinsurance, other property reinsurance (risk excess, pro rata and facultative), casualty reinsurance (U.S. treaty, international treaty and global facultative) and specialty insurance and reinsurance

(credit and surety, mortgage reinsurance and insurance, agriculture insurance and reinsurance, marine, aviation, terrorism, engineering, cyber and other specialty lines). For a more detailed description of this segment, see Part I, Item 1, “Business — Business Segments — Reinsurance” in the Company’s 2016 Annual Report on Form 10-K filed with the SEC.

*Gross written premiums.* Gross written premiums in our reinsurance segment increased by 17.9% in the third quarter of 2017 compared to the three months ended September 30, 2016. The table below shows the gross written premiums and the percentage change in gross written premiums for each line of business for the three months ended September 30, 2017 and 2016:

<u>Lines of Business</u>	<u>Three Months Ended</u> <u>September 30, 2017</u>	<u>Three Months Ended</u> <u>September 30, 2016</u>	<u>% increase/</u> <u>(decrease)</u>
	<u>(\$ in millions)</u>	<u>(\$ in millions)</u>	
Property catastrophe reinsurance	\$ 63.3	\$ 47.3	33.8 %
Other property reinsurance	88.1	77.4	13.8 %
Casualty reinsurance	75.8	79.3	(4.4)%
Specialty reinsurance	204.3	161.9	26.2 %
<b>Total</b>	<b>\$ 431.5</b>	<b>\$ 365.9</b>	<b>17.9 %</b>

The increase in property catastrophe reinsurance gross written premiums was primarily due to the recognition of \$19.9 million of reinstatement premiums associated with the catastrophe events which occurred in the third quarter. The increase in other property reinsurance gross written premiums was largely due to adverse contract adjustments in the comparative period. Gross written premiums in casualty reinsurance reduced slightly due to favorable contract adjustments in the comparative period. The increase in gross written premiums in specialty reinsurance was largely due to growth in agriculture insurance business.

*Losses and loss adjustment expenses.* The loss ratio for the three months ended September 30, 2017 was 131.5% compared to 56.5% in the equivalent period in 2016. The increase in the loss ratio was mainly attributable to a \$281.4 million increase in catastrophe losses in the quarter and a \$2.9 million decrease in prior year reserve releases.

In the third quarter of 2017, we experienced \$296.2 million of catastrophe losses, net of reinsurance recoveries, including \$90.5 million from Hurricane Harvey, \$121.3 million from Hurricane Irma, \$50.8 million from Hurricane Maria, \$19.5 million from the earthquakes in Mexico and \$14.1 million from weather-related events in the U.S., Australia and Asia. The equivalent quarter of 2016 experienced \$14.8 million of catastrophe losses from weather-related events in the U.S. and a hailstorm in the Netherlands.

Prior year reserve releases for the current quarter and the comparative period in 2016 were a result of favorable development across all of our reinsurance business lines. Further information relating to the movement of prior year reserves is found below under “Reserves for Losses and Loss Adjustment Expenses.”

*Policy acquisition, general and administrative expenses.* Amortization of deferred policy acquisition costs was \$61.5 million for the three months ended September 30, 2017, equivalent to 16.1% of net earned premiums, compared to \$53.0 million, or 16.8% of net earned premiums, for the equivalent period in 2016. The reduction in the acquisition expense ratio was largely due to an increase in the proportion of agriculture business written, which has a lower average commission rate, and a decrease in property, casualty and specialty business written on a pro rata basis which have higher average commission rates. General and administrative expenses reduced to \$32.8 million compared with \$47.4 million in the equivalent period in 2016 due to a reduction in the provisions for performance-related remuneration. The general and administrative expense ratio decreased to 8.6% from 15.0% in the equivalent period in 2016 due to the reduction in provisions for performance-related remuneration partially offset by the impact on net earned premiums from ceding a greater proportion of written premiums to third parties.

## **Insurance**

The insurance segment consists of property and casualty insurance, marine, aviation and energy insurance and financial and professional lines insurance. For a more detailed description of this segment, see Part I, Item 1 “Business — Business Segments — Insurance” in our 2016 Annual Report on Form 10-K filed with the SEC.

*Gross written premiums.* Gross written premiums in our insurance segment increased by 5.9% in the second quarter of 2017 compared to the three months ended September 30, 2016. The table below shows our gross written premiums and the percentage change in gross written premiums for each line of business for the three months ended September 30, 2017 and 2016:

<u>Lines of Business</u>	<u>Three Months Ended September 30, 2017</u>	<u>Three Months Ended September 30, 2016</u>	<u>% increase/ (decrease)</u>
	(\$ in millions)	(\$ in millions)	
Property and casualty insurance	\$ 194.6	\$ 184.9	5.2 %
Marine, aviation and energy insurance	86.0	96.3	(10.7)%
Financial and professional lines insurance	140.4	116.4	20.6 %
Total	<u>\$ 421.0</u>	<u>\$ 397.6</u>	5.9 %

The increase in property and casualty insurance gross written premiums was largely attributable to increases in U.K. regional and excess casualty business lines, partially offset by planned reductions in programs business. The decrease in gross written premiums in marine, aviation and energy insurance was largely attributable to reductions in marine and energy liability business. The increase in gross written premiums in financial and professional lines insurance was largely attributable to growth in management liability, credit and political risks, accident and health, surety and cyber business lines.

*Losses and loss adjustment expenses.* The loss ratio increased to 101.3% in the third quarter of 2017 from 57.7% in the third quarter of 2016 largely due to a \$66.5 million increase in catastrophe losses, a \$14.6 million decrease in prior year reserve releases and a \$32.3 million increase in losses primarily in short-tail property insurance lines.

In the third quarter of 2017 we experienced \$76.6 million of catastrophe losses, net of reinsurance recoveries, including \$23.4 million from Hurricane Harvey, \$21.1 million from Hurricane Irma, \$15.2 million from Hurricane Maria and \$16.9 million from weather-related events in the U.S. We experienced \$10.1 million of catastrophe losses in the equivalent quarter of 2016 due to U.S. weather-related events.

Prior year reserve releases decreased from \$15.3 million in the third quarter of 2016 to \$0.7 million in the current period. Reserve releases in the current quarter were from marine, aviation and energy business lines, which offset reserve strengthening in financial and professional lines insurance business and strengthening in property and casualty lines associated with the purchase of an adverse development cover. Reserve releases in the comparative quarter of 2016 were principally from our marine, aviation and energy and financial and professional lines insurance business. Further information relating to the movement of prior year reserves is found below under "Reserves for Losses and Loss Adjustment Expenses."

*Policy acquisition, general and administrative expenses.* Amortization of deferred policy acquisition costs for the three months ended September 30, 2017 decreased to 16.2% of net earned premiums compared to 21.4% in the third quarter of 2016 mainly due to an increase in over-rider commissions associated with an increase in ceded reinsurance. Our general and administrative expenses increased by \$1.5 million from \$57.9 million in the third quarter of 2016 to \$59.4 million in the current quarter due to costs associated with growth in our insurance business partially offset by a reduction in provisions for performance-related remuneration.



## Results of Operations for the Nine Months Ended September 30, 2017 Compared to the Nine Months Ended September 30, 2016

The following is a discussion and analysis of our consolidated results of operations for the nine months ended September 30, 2017 and 2016, starting with a summary of our consolidated results and followed by a segmental analysis.

### Total Income Statement

Our statements of operations consolidate the underwriting results of our two business segments and include certain other revenue and expense items that are not allocated to our business segments.

*Gross written premiums.* Gross written premiums increased by \$131.7 million, or 5.2%, in the first nine months of 2017 compared to the equivalent period in 2016. Gross written premiums from our reinsurance segment increased by 9.6% in the first nine months of 2017 compared to the equivalent period in 2016 mainly due to growth in agriculture insurance business written within specialty reinsurance. Gross written premiums from our insurance segment increased by 1.2% in the first nine months of 2017 compared to the equivalent period in 2016 mainly due to growth in financial and professional lines partially offset by reductions in marine, aviation and energy lines where we continue to experience challenging market conditions and in property and casualty lines as a result of a change in our appetite for this type of business.

The table below shows our gross written premiums for each business segment and the percentage change in gross written premiums for each business segment for the nine months ended September 30, 2017 and 2016:

<u>Business Segment</u>	<u>Nine Months Ended</u>	<u>Nine Months Ended</u>	<u>% increase</u>
	<u>September 30, 2017</u>	<u>September 30, 2016</u>	
	<u>(\$ in millions)</u>	<u>(\$ in millions)</u>	
Reinsurance	\$ 1,332.4	\$ 1,216.1	9.6%
Insurance	1,340.2	1,324.8	1.2%
Total	<u>\$ 2,672.6</u>	<u>\$ 2,540.9</u>	5.2%

*Ceded reinsurance.* Total reinsurance ceded for the first nine months of 2017 increased by \$422.3 million to \$800.3 million compared to the first nine months of 2016. Ceded reinsurance costs increased by \$332.5 million for our insurance segment because we restructured our ceded reinsurance arrangements as we aim to reduce earnings volatility and benefit the expense ratio through an increase in over-rider commissions. Ceded reinsurance costs increased by \$89.8 million for our reinsurance segment due to increased ceded reinsurance for our property catastrophe and other property business lines due to new business opportunities which were written in conjunction with an increase in retrocession. Our retention ratio decreased by 15.0% to 70.1% in the first nine months of 2017 compared to 85.1% in the first nine months of 2016.

*Net earned premiums.* Net earned premiums in the first nine months of 2017 decreased by 11.3% compared to the first nine months of 2016 due to a \$296.9 million increase in ceded earned reinsurance premiums partially offset by a \$67.6 million increase in gross earned premiums.

*Losses and loss adjustment expenses.* The loss ratio increased by 22.1 percentage points from 58.7% in the first nine months of 2016 to 80.8% in the first nine months of 2017. The increase in the loss ratio was largely due to a \$325.1 million increase in catastrophe losses partially offset by a \$14.6 million increase in prior year reserve releases and a decrease in net earned premiums. The increase in reserves releases included an additional \$28.5 million reinsurance recovery in respect of an offshore energy-related loss that occurred in Africa.

In the reinsurance segment, the loss ratio for the nine months ended September 30, 2017 was 85.6% compared to 55.2% in the equivalent period in 2016 largely due to a \$252.6 million increase in catastrophe losses, partially offset by an \$18.9 million increase in reserve releases. In the first nine months of 2017, we experienced \$329.8 million of catastrophe losses, net of reinsurance recoveries, including \$90.5 million from Hurricane Harvey, \$121.3 million from Hurricane Irma, \$50.8 million from Hurricane Maria, \$19.5 million from the earthquakes in Mexico, \$7.2 million from a tornado in Mississippi, \$5.2 million from Cyclone Debbie in Australia and \$32.9 million from U.S. weather related events. In the comparable period in 2016, we experienced \$77.2 million of natural catastrophe losses, net of reinsurance recoveries, including \$36.0 million associated with the wildfires in Canada, \$26.0 million from weather-related events in the U.S., \$7.5 million from an earthquake in Japan, \$3.4 million from a hailstorm in the Netherlands and \$2.2 million from an earthquake in Taiwan. Reserve releases increased from \$52.1 million in the first nine months of 2016 to \$71.0 million in the current period. For the nine months ended September 30, 2017, we experienced favorable development across all of our reinsurance business lines including an additional \$13.1 million reinsurance recovery in respect of an offshore energy-related loss that occurred in Africa and despite \$12.8 million of adverse development in our casualty reinsurance lines due to the U.K. Ministry of Justice decision to increase the discount rate used to calculate lump sum awards in U.K. bodily

injury cases, known as the Ogden rate. The comparative period in 2016 benefited from favorable reserve development in other property, casualty and specialty reinsurance business lines.

In the insurance segment, the loss ratio for the first nine months of 2017 was 75.6% compared to 61.5% in the comparative period in 2016. The increase in the loss ratio was mainly due to the impact from higher ceded reinsurance costs on net earned premiums and an increase in catastrophe losses which offset the favorable impact from fewer large losses and higher reserve releases. In the first nine months of 2017, there were \$107.0 million of catastrophe losses including \$23.4 million from Hurricane Harvey, \$21.1 million from Hurricane Irma, \$15.2 million from Hurricane Maria and \$47.3 million from U.S. weather-related events compared to \$34.6 million associated with U.S. weather-related events in the first nine months of 2016. In the first nine months of 2017, we experienced a \$4.8 million loss from a refinery explosion, a \$6.8 million surety loss and \$19.8 million of losses from several fires while large losses in the comparative period in 2016 included \$29.6 million of energy-related losses, \$11.8 million of fire-related losses and a \$4.2 million aviation loss. Prior year reserve releases decreased by \$4.3 million from \$26.1 million in the first nine months of 2016 to \$21.8 million in the equivalent period in 2017. The reserve releases in the nine-month period were principally from our marine, aviation and energy business line and included an additional \$15.4 million reinsurance recovery in respect of an offshore energy-related loss that occurred in Africa which offset adverse development in our casualty lines due to a change in the Ogden rate. The release in the comparative period in 2016 was due primarily from our marine, aviation and energy lines and financial and professional lines offsetting adverse development in our property and casualty lines of business.

We monitor the loss ratio as a measure of relative underwriting performance where a lower ratio represents a better result than a higher ratio. The loss ratios for our two business segments for the nine months ended September 30, 2017 and 2016 were as follows:

<b>Business Segment</b>	<b>Nine Months Ended September 30, 2017</b>	<b>Nine Months Ended September 30, 2016</b>
Reinsurance	85.6%	55.2%
Insurance	75.6%	61.5%
<b>Total Loss Ratio</b>	<b>80.8%</b>	<b>58.7%</b>

We also present in the tables below the loss ratios including and excluding the impact from natural catastrophe losses to aid in the analysis of the underlying performance of our business segments. For this purpose, we defined the 2017 catastrophe losses in the first nine months of 2017 as losses associated with Hurricanes Harvey, Irma and Maria, the earthquakes in Mexico, a tornado in Mississippi, Cyclone Debbie in Australia and other U.S. weather related events. We defined major 2016 catastrophe losses as losses associated with the wildfires in Canada, weather-related events in the U.S., a hailstorm in the Netherlands and several earthquakes.

The underlying changes in loss ratios by business segment are shown in the tables below for the nine months ended September 30, 2017 and 2016. The total loss ratio represents the calendar year U.S. GAAP loss ratio. The current year adjustments represent the effect on the loss ratio of net claims and reinstatement premiums, if applicable, from catastrophe loss events.

<b>For the Nine Months Ended September 30, 2017</b>	<b>Total Loss Ratio</b>	<b>Current Year Adjustments</b>	<b>Loss Ratio Excluding Current Year Adjustments</b>
Reinsurance	85.6%	(34.3)%	51.3%
Insurance	75.6%	(12.9)%	62.7%
<b>Total</b>	<b>80.8%</b>	<b>(23.9)%</b>	<b>56.9%</b>

<b>For the Nine Months Ended September 30, 2016</b>	<b>Total Loss Ratio</b>	<b>Current Year Adjustments</b>	<b>Loss Ratio Excluding Current Year Adjustments</b>
Reinsurance	55.2%	(8.3)%	46.9%
Insurance	61.5%	(3.1)%	58.4%
<b>Total</b>	<b>58.7%</b>	<b>(5.4)%</b>	<b>53.3%</b>

Reserve releases in our reinsurance segment increased from \$52.1 million in the first nine months of 2016 to \$71.0 million in the equivalent period in 2017. Reserve releases in the insurance segment decreased from \$26.1 million in the first nine months of 2016 to \$21.8 million in the first nine months of 2017. Refer to "Reserves for Losses and Loss Adjustment Expenses" below for a description of the key elements giving rise to these reserve releases.

*Expense ratio.* We monitor the expense ratio as a measure of the cost effectiveness of our amortization of deferred policy acquisition costs and general, administrative and corporate expenses. The table below splits the net expense ratio between the amortized deferred policy acquisition costs, general, administrative and corporate expenses and the effect of reinsurance for each of the nine months ended September 30, 2017 and 2016:

<b>Ratios Based on Gross Earned Premium</b>	<b>Nine Months Ended September 30, 2017</b>			<b>Nine Months Ended September 30, 2016</b>		
	<b>Reinsurance</b>	<b>Insurance</b>	<b>Total</b>	<b>Reinsurance</b>	<b>Insurance</b>	<b>Total</b>
Gross policy acquisition expense ratio	18.1%	18.3 %	18.2 %	17.3%	18.9%	18.2%
Effect of ceded reinsurance	0.6	(2.0)	(0.6)	0.9	1.0	1.0
Net policy acquisition expense ratio	18.7%	16.3 %	17.6 %	18.2%	19.9%	19.2%
Gross general, administrative and corporate expense ratio <sup>(1)</sup>	10.6	14.4	14.6	13.0	12.9	15.4
Effect of ceded reinsurance premiums	2.0	7.2	5.0	1.6	2.5	2.4
Net general and administrative expense ratio	12.6%	21.6 %	19.6 %	14.6%	15.4%	17.8%
Total net expense ratio	31.3%	37.9 %	37.2 %	32.8%	35.3%	37.0%

<sup>(1)</sup> The total group general and administrative expense ratio includes corporate and non-operating expenses. Comparative ratios have been re-presented to include corporate and non-operating expenses.

Policy acquisition expenses decreased by \$72.4 million in the first nine months of 2017 compared with the equivalent period in 2016 due to an increase in override commissions associated with the increase in ceded reinsurance. The increase in the policy acquisition ratio, before the effect of reinsurance, is due to a change in the mix of business written.

General, administrative and corporate expenses decreased by \$9.1 million in the first nine months of 2017 compared to the first nine months of 2016. The general, administrative and corporate expense ratio, before the effect of ceded reinsurance, decreased by 0.8 percentage points compared to the prior period in 2016. The increase in the insurance segment ratio is largely due to costs associated with growth in our insurance business, while in the reinsurance segment the reduction is due to lower provisions for performance-related remuneration.

*Net investment income.* Net investment income for the first nine months of 2017 was \$141.5 million, a decrease of 1.7% compared to \$143.9 million in the first nine months of 2016 due to a reduction in dividend income following the sale of a portion of our equity portfolio in the fourth quarter of 2016.

*Change in fair value of derivatives.* In the nine months ended September 30, 2017, we experienced a gain of \$25.2 million (2016 — loss of \$3.7 million) in respect of foreign exchange contracts not designated as hedging instruments and a gain of \$2.4 million (2016 — loss of \$5.6 million) in respect of foreign exchange contracts designated as hedging instruments. In the first nine months of 2016, we recorded a charge of \$3.3 million in respect of our terminated interest rate swaps. There was no charge in the first nine months of 2017 because we terminated our interest rate swaps on May 9, 2016.

*Income before tax.* In the nine months ended September 30, 2017, loss before tax was \$86.7 million (2016 — income of \$283.6 million) consisting of the amounts set out in the table below:

	<u>Nine Months Ended September 30, 2017</u>	<u>Nine Months Ended September 30, 2016</u>
	(\$ in millions)	
Underwriting (loss) income	\$ (274.6)	\$ 144.0
Corporate expenses	(38.3)	(50.6)
Non-operating expenses	(9.5)	(6.3)
Other income/(expenses)	3.0	2.3
Net investment income	141.5	143.9
Change in fair value of derivatives	25.2	(7.0)
Change in fair value of loan notes issued by variable interest entities	3.6	(13.7)
Realized and unrealized investment gains	130.1	137.4
Realized and unrealized investment losses	(24.4)	(34.1)
Net realized and unrealized foreign exchange losses	(21.1)	(10.2)
Interest expense	(22.2)	(22.1)
(Loss) income before tax	<u>\$ (86.7)</u>	<u>\$ 283.6</u>

*Taxes.* Income tax credit for the nine months ended September 30, 2017 was \$5.2 million (2016 — \$8.7 million expense) equating to an estimated effective tax rate of 6.0% (2016 — 3.1%). The income tax credit for the nine months ended September 30, 2017 takes into account a tax credit associated with the adoption of ASU 2016-09, “*Compensation - Stock Compensation*” and a tax credit regarding deductions available for certain research and development expenditure. The tax rate for the nine months ended September 30, 2016 benefited from an agreement with HMRC regarding deductions available for certain interest payments in prior periods. The effective tax rate for the year is subject to revision in future periods if circumstances change and depends on the relative profitability of the business underwritten in Bermuda (where the rate of tax on corporate profits is zero), the United Kingdom (where the corporation tax rate is 19% and will be reduced to 17% effective April 1, 2020) and the United States (where the federal income tax rate is 35%).

*Net income after tax.* Net loss after tax for the nine months ended September 30, 2017 was \$81.5 million, equivalent to basic loss per share of \$1.99 adjusted for the \$28.7 million preference share dividends, \$8.0 million of preference share redemption costs and \$0.8 million non-controlling interest. Fully diluted loss per ordinary share was \$1.99 for the nine months ended September 30, 2017. Net income after tax for the nine months ended September 30, 2016 was \$274.9 million, equivalent to basic earnings per ordinary share of \$4.07, adjusted for the \$28.4 million preference share dividends and \$Nil of non-controlling interest. Fully diluted earnings per ordinary share were \$3.97 for the nine months ended September 30, 2016.

*Realized and unrealized investment gains.* In the nine months ended September 30, 2017, we recorded a net change in gross realized and unrealized gains of \$105.7 million (2016 — \$103.3 million) driven primarily by mark to market gains in both our fixed income and equity portfolios. For more detail, refer to Note 6 of these unaudited condensed consolidated financial statements.

*Other-than-temporary impairments.* A security is impaired when its fair value is below its amortized cost. We review our aggregate investment portfolio, including equities, on an individual security basis for potential OTTI each quarter based on criteria including issuer-specific circumstances, credit ratings actions and general macro-economic conditions. The total OTTI charge for the nine months ended September 30, 2017 and 2016 was \$0.5 million and \$Nil, respectively. For a more detailed description of OTTI, please refer to Part II, Item 7, “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” in our 2016 Annual Report on Form 10-K filed with the SEC.

*Other comprehensive income.* We recorded a reduction in our total other comprehensive income for the nine months ended September 30, 2017 of \$20.2 million (2016 — increase of \$72.3 million), net of taxes. This consisted of a \$16.2 million net unrealized gain on the available for sale investment portfolio (2016 — \$102.0 million net unrealized gain), a \$2.4 million reclassification of net realized gains to net income (2016 — \$9.1 million reclassified net realized loss), a net unrealized loss in foreign currency translation of \$36.8 million (2016 — \$19.3 million net unrealized loss) and a net unrealized gain on hedged derivative contracts of \$2.8 million (2016 — loss of \$1.3 million).

*Non-controlling interest.* In the nine months ended September 30, 2017, we recorded an increase of \$0.8 million (2016 — \$Nil) in the amount owed to the non-controlling interest in respect of Aspen Risk Management Limited.

*Dividends.* The quarterly dividend on our ordinary shares increased from \$0.22 per ordinary share to \$0.24 per ordinary share on April 26, 2017. The quarterly dividend on our ordinary shares increased from \$0.21 per ordinary share to \$0.22 per ordinary

share on April 21, 2016. Dividends paid on our ordinary and preference shares in the nine months ended September 30, 2017 were \$42.0 million and \$28.7 million, respectively (2016 — \$39.5 million and \$28.4 million).

### Underwriting Results by Business Segments —For the Nine Months Ended September 30, 2017

Please refer to the tables in Note 5 in our unaudited condensed consolidated financial statements of this report for a summary of gross and net written and earned premiums, underwriting results and combined ratios and reserves for our two business segments for the nine months ended September 30, 2017 and 2016. The contributions of each business segment to gross written premiums in the nine months ended September 30, 2017 and 2016 were as follows:

<u>Business Segment</u>	<u>Gross Written Premiums</u>			
	<u>Nine Months Ended September 30, 2017</u>		<u>Nine Months Ended September 30, 2016</u>	
	<u>(\$ in millions)</u>	<u>(% of gross written premiums)</u>	<u>(\$ in millions)</u>	<u>(% of gross written premiums)</u>
Reinsurance	\$ 1,332.4	49.9%	\$ 1,216.1	47.9%
Insurance	1,340.2	50.1	1,324.8	52.1
Total	<u>\$ 2,672.6</u>	<u>100.0%</u>	<u>\$ 2,540.9</u>	<u>100.0%</u>

### Reinsurance

*Gross written premiums.* Gross written premiums in our reinsurance segment for the nine months ended September 30, 2017 increased by 9.6% compared to the nine months ended September 30, 2016. The table below shows our gross written premiums for each line of business and the percentage change in gross written premiums for each line of business for the nine months ended September 30, 2017 and 2016:

<u>Lines of Business</u>	<u>Nine Months Ended</u>	<u>Nine Months Ended</u>	<u>% increase/ (decrease)</u>
	<u>September 30, 2017</u>	<u>September 30, 2016</u>	
	<u>(\$ in millions)</u>	<u>(\$ in millions)</u>	
Property catastrophe reinsurance	\$ 266.4	\$ 272.6	(2.3)%
Other property reinsurance	286.7	264.7	8.3 %
Casualty reinsurance	272.6	263.7	3.4 %
Specialty reinsurance	506.7	415.1	22.1 %
Total	<u>\$ 1,332.4</u>	<u>\$ 1,216.1</u>	<u>9.6 %</u>

The decrease in property catastrophe gross written premiums was primarily due to challenging market conditions and downward revisions on premium estimates offsetting an increase in premiums due to the recognition of reinstatement premiums associated with third quarter catastrophe losses. The increase in other property reinsurance gross written premiums was largely due to favorable revisions on premium estimates whereas in the comparative period there were reductions in premium estimates for proportional contracts. Gross written premiums in casualty reinsurance increased largely due to growth in U.S. casualty treaty and international casualty business lines. The increase in gross written premiums in specialty reinsurance was largely due to growth in agriculture insurance business.

*Losses and loss adjustment expenses.* The loss ratio for the nine months ended September 30, 2017 was 85.6% compared to 55.2% in the equivalent period in 2016 largely due to a \$252.6 million increase in catastrophe losses, \$25.3 million of mid-sized fire related losses in the first nine months of 2017, the largest of which was a fire in a chemical plant, compared with no significant mid-sized losses in the first nine months of 2016, partially offset by an \$18.9 million increase in reserve releases. In the first nine months of 2017, we experienced \$329.8 million of catastrophe losses, net of reinsurance recoveries, including \$90.5 million from Hurricane Harvey, \$121.3 million from Hurricane Irma, \$50.8 million from Hurricane Maria, \$19.5 million from earthquakes in Mexico, \$7.2 million from a tornado in Mississippi, \$5.2 million from Cyclone Debbie in Australia and \$32.9 million from U.S. weather related events. In the comparable period in 2016, we experienced \$77.2 million of catastrophe losses, net of reinsurance recoveries, including \$36.0 million associated with the wildfires in Canada, \$26.0 million from weather-related events in the U.S., \$7.5 million from an earthquake in Japan, \$3.4 million from a hailstorm in the Netherlands and \$2.2 million from an earthquake in Taiwan. Reserve releases increased from \$52.1 million in the first nine months of 2016 to \$71.0 million in the current period which included an additional \$13.1 million reinsurance recovery in respect of an offshore energy-related loss that occurred in Africa.

Further information relating to the movement of prior year reserves is found below under “Reserves for Losses and Loss Adjustment Expenses.”

*Policy acquisition, general and administrative expenses.* Amortization of deferred policy acquisition costs was \$174.4 million for the nine months ended September 30, 2017 equivalent to 18.7% of net premiums earned compared to \$163.1 million, or 18.2% of net premiums earned, in the equivalent period in 2016. The increase in the acquisition ratio is due to the prior period benefiting from the receipt of FET refunds.

The general and administrative expense ratio of 12.6% for the nine months ended September 30, 2017 decreased from 14.6% for the comparative period in 2016 due to a reduction in provisions for performance-related remuneration partially offset by the impact on net earned premiums from ceding a greater proportion of written premiums to third parties.

## Insurance

*Gross written premiums.* Gross written premiums in our insurance segment for the nine months ended September 30, 2017 increased by 1.2% compared to the nine months ended September 30, 2016. The table below shows our gross written premiums for each line of business and the percentage change in gross written premiums for each line for the nine months ended September 30, 2017 and 2016:

<u>Lines of Business</u>	<u>Nine Months Ended</u>	<u>Nine Months Ended</u>	<u>% increase/ (decrease)</u>
	<u>September 30, 2017</u>	<u>September 30, 2016</u>	
	<u>(\$ in millions)</u>	<u>(\$ in millions)</u>	
Property and casualty insurance	\$ 655.0	\$ 668.8	(2.1)%
Marine, aviation and energy insurance	284.5	307.8	(7.6)%
Financial and professional lines insurance	400.7	348.2	15.1 %
Total	<u>\$ 1,340.2</u>	<u>\$ 1,324.8</u>	1.2 %

The decrease in property and casualty gross written premiums was largely attributable to reductions in primary global casualty and program business as a result of a change in our appetite for this type of business, partially offset by growth in our U.K. regional and excess casualty business lines. The decrease in gross written premiums in marine, aviation and energy insurance was largely attributable to continued challenging market conditions in marine and energy liability and aviation business lines. The increase in gross written premiums in financial and professional insurance was largely attributable to growth in our management liability, surety, cyber and accident and health business lines.

*Losses and loss adjustment expenses.* The loss ratio of 75.6% for the first nine months of 2017 increased from 61.5% for the comparable period in 2016 due a \$72.4 million increase in catastrophe losses and a \$4.3 million reduction in prior year reserve releases being more significant than a reduction in large losses. In the first nine months of 2017, there were \$107.0 million of catastrophe losses including \$23.4 million from Hurricane Harvey, \$21.1 million from Hurricane Irma, \$15.2 million from Hurricane Maria and \$47.3 million from U.S. weather-related events compared to \$34.6 million associated with U.S. weather-related events in the first nine months of 2016. Large losses in the current period included a \$4.8 million loss from a refinery explosion, a \$6.8 million surety loss, \$19.8 million of losses from several fires and a \$32.3 million increase in third quarter losses in our property and programs business lines. In the comparative period of 2016, large losses included \$29.6 million of energy-related losses, \$11.8 million of fire-related losses and a \$4.2 million aviation loss.

Prior year reserve releases decreased by \$4.3 million from \$26.1 million in the first nine months of 2016 to \$21.8 million in the current period. The reserve releases in the nine-month period were as a result of favorable development in our marine, aviation and energy business lines which included an additional \$15.4 million reinsurance recovery in respect of an offshore energy-related loss that occurred in Africa, partially offset by adverse development in our financial and professional lines. The reserve release in the comparative period in 2016 came principally from our marine, aviation and energy lines and financial and professional lines offsetting adverse development in our property and casualty lines of business. Further information relating to the movement of prior year reserves is found below under "Reserves for Losses and Loss Adjustment Expenses."

*Policy acquisition, general and administrative expenses.* Amortization of deferred policy acquisition costs for the nine months ended September 30, 2017 decreased to 16.3% of net premiums earned compared to 19.9% in the comparable period of 2016 largely due to an increase in over-rider commissions. Our general and administrative expenses in the first nine months of 2017 increased by \$13.2 million to \$186.9 million from \$173.7 million in the comparable period of 2016 predominantly due to costs associated with growth in our insurance business.

## Cash and Investments

As at September 30, 2017 and December 31, 2016, total cash and investments were \$8.9 billion and \$9.2 billion, respectively. The composition of our investment portfolio is summarized below:

	As at September 30, 2017		As at December 31, 2016	
	Estimated Fair Value	Percentage of Total Cash and Investments	Estimated Fair Value	Percentage of Total Cash and Investments
	(\$ in millions except for percentages)			
Fixed income securities — available for sale				
U.S. government	\$ 1,172.7	13.2%	\$ 1,206.1	13.1%
U.S. agency	62.1	0.7	119.6	1.3
Municipal	50.1	0.6	24.4	0.3
Corporate	2,468.3	27.9	2,586.5	28.2
Non-U.S. government-backed corporate	94.0	1.1	89.8	1.0
Non-U.S. government	531.7	6.0	488.7	5.3
Asset-backed	33.7	0.4	63.0	0.7
Non-agency commercial mortgage-backed	—	—	12.6	0.1
Agency mortgage-backed	952.8	10.7	1,073.9	11.7
Total fixed income securities — available for sale	\$ 5,365.4	60.6%	\$ 5,664.6	61.7%
Fixed income securities — trading				
U.S. government	160.6	1.8	82.4	0.9
Municipal	32.3	0.4	15.5	0.2
Corporate	1,045.0	11.7	820.6	8.9
Non-U.S. government	210.9	2.4	202.8	2.2
Asset-backed	11.1	0.1	14.5	0.2
Mortgage-backed securities	203.1	2.3	129.9	1.4
Bonds backed by foreign government	2.0	—	—	—
Total fixed income securities — trading	\$ 1,665.0	18.7%	\$ 1,265.7	13.8%
Total other investments	4.0	—	12.1	0.1
Total catastrophe bonds — trading	30.3	0.3	42.5	0.5
Total equity securities — trading	468.6	5.4	584.7	6.4
Total short-term investments — available for sale	34.4	0.4	145.3	1.6
Total short-term investments — trading	90.3	1.0	185.4	2.0
Total cash and cash equivalents	1,209.3	13.6	1,273.8	13.9
Total cash and investments	\$ 8,867.3	100.0%	\$ 9,174.1	100.0%

*Fixed Income Securities.* As at September 30, 2017, the average credit quality of our fixed income portfolio was “AA-,” with 88.6% of the portfolio rated “A” or higher. As at December 31, 2016, the average credit quality of our fixed income portfolio was “AA-,” with 89.3% of the portfolio rated “A” or higher. Where the credit ratings were split between the two main rating agencies, S&P and Moody’s, the lower rating was used. Our fixed income portfolio duration was 3.91 years as at September 30, 2017 compared to 3.89 years as at December 31, 2016.

*Mortgage-Backed Securities.* The following table summarizes the fair value of our mortgage-backed securities by rating and class as at September 30, 2017. Our mortgage-backed portfolio is supported by loans diversified across a number of geographic and economic sectors.

	AAA	AA and Below	Total
	(\$ in millions)		
Agency	\$ —	\$ 1,155.9	\$ 1,155.9
Non-agency commercial	—	—	—
Total mortgage-backed securities	\$ —	\$ 1,155.9	\$ 1,155.9

*Equity Securities.* Equity securities comprise U.S. and foreign equity securities and are held in the trading portfolio. In the third quarter of 2017 we took advantage of rising equity markets and sold \$208.1 million of our equity portfolio. The total investment return from the trading equity portfolios for the three and nine months ended September 30, 2017 and 2016 was as follows:

<b>Trading Equity Portfolio</b>	<b>For the Three Months Ended</b>		<b>For the Nine Months Ended</b>	
	<b>September 30, 2017</b>	<b>September 30, 2016</b>	<b>September 30, 2017</b>	<b>September 30, 2016</b>
	<b>(\$ in millions)</b>		<b>(\$ in millions)</b>	
Dividend income	\$ 2.8	\$ 5.5	\$ 11.7	\$ 17.9
Net realized investment gains	38.4	6.5	43.7	9.9
Net unrealized (losses)/gains, gross of tax	(34.4)	4.0	8.2	37.6
Net realized foreign exchange gains (losses)	0.1	(2.8)	(1.3)	(9.0)
Net unrealized foreign exchange gains	6.6	2.1	22.9	9.4
Total investment return from the trading equity portfolio	\$ 13.5	\$ 15.3	\$ 85.2	\$ 65.8

*European Fixed Income and Equity Exposures.* As at September 30, 2017, we had \$853.6 million, or 9.6% of our total cash and investments, invested in securities issued by European issuers, including the United Kingdom. Our European exposures consisted of sovereigns, agencies, government guaranteed bonds, covered bonds, corporate bonds and equities. We have no exposure to the sovereign debt of Greece, Ireland, Italy, Portugal or Spain (“GIIPS”).

We manage our European fixed income exposures by proactively adapting our investment guidelines to our views on the European markets. We continue to prohibit purchases of GIIPS, Belgian sovereign and guaranteed debt, peripheral European bank debt and corporate bonds issued by companies domiciled in GIIPS countries. We may purchase bonds issued by U.K and non-peripheral European select corporate financial issuers.

The tables below summarize our European holdings by country (Eurozone and non-Eurozone), rating and sector as at September 30, 2017. Equity investments included in the table below are not rated (“NR”). Where the credit ratings were split between the two main rating agencies, S&P and Moody’s, the lowest rating was used.

<b>Country</b>	<b>As at September 30, 2017 by Rating</b>						<b>Market Value</b>	<b>Market Value %</b>
	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>NR</b>			
	<b>(\$ in millions except percentages)</b>							
Austria	\$ —	\$ 8.7	\$ —	\$ —	\$ —	\$ 8.7	1.0%	
Belgium	—	—	16.6	—	5.2	21.8	2.5	
Denmark	3.5	—	—	2.8	—	6.3	0.7	
Finland	—	10.4	—	—	9.4	19.8	2.3	
France	—	16.1	33.4	4.5	15.3	69.4	8.1	
Germany	40.3	13.8	77.2	12.6	13.0	157.0	18.5	
Hungary	—	—	—	1.7	—	1.7	0.2	
Luxembourg	—	—	—	0.3	—	0.3	—	
Netherlands	20.8	—	31.5	8.5	5.6	66.4	7.8	
Norway	3.8	—	10.5	0.4	—	14.7	1.7	
Poland	—	—	—	6.3	—	6.3	0.7	
Romania	—	—	—	3.2	—	3.2	0.4	
Sweden	1.0	14.5	—	1.0	—	16.4	1.9	
Switzerland	3.5	26.5	23.7	9.8	49.7	113.2	13.3	
United Kingdom	—	165.2	69.8	36.2	77.3	348.4	40.9	
Total European Exposures	\$ 72.9	\$ 255.2	\$ 262.7	\$ 87.3	\$ 175.5	\$ 853.6	100.0%	



**As at September 30, 2017 by Sector**

<u>Country</u>	<u>Sovereign</u>	<u>ABS</u>	<u>Government Guaranteed Bonds</u>	<u>Agency</u>	<u>Local Government</u>	<u>Corporate Financial Issuers</u>	<u>Corporate Non- Financial Issuers</u>	<u>Equity</u>	<u>Market Value</u>	<u>Unrealized Pre-tax Gain/(Loss)</u>
(\$ in millions except percentages)										
Austria	\$ 1.3	\$ —	\$ 7.4	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 8.7	\$ 0.1
Belgium	—	—	—	—	—	—	16.6	5.2	21.8	0.8
Denmark	—	—	—	—	3.5	—	2.8	—	6.3	—
Finland	5.8	—	—	—	4.5	—	—	9.4	19.8	0.8
France	1.5	—	—	23.7	—	6.2	22.7	15.3	69.4	2.1
Germany	0.6	—	33.0	5.9	14.7	—	89.8	13.0	157.0	5.2
Hungary	1.7	—	—	—	—	—	—	—	1.7	0.1
Luxembourg	—	—	—	—	—	—	0.3	—	0.3	—
Netherlands	—	—	—	21.1	—	16.3	23.4	5.6	66.4	1.7
Norway	—	—	—	14.3	—	—	0.4	—	14.7	0.4
Poland	6.3	—	—	—	—	—	—	—	6.3	0.1
Romania	3.2	—	—	—	—	—	—	—	3.2	0.1
Sweden	0.7	—	—	4.8	0.3	10.7	—	—	16.4	0.2
Switzerland	3.5	—	—	—	—	10.8	49.3	49.7	113.2	5.4
United Kingdom	164.5	0.5	0.7	—	—	16.1	89.3	77.3	348.4	13.0
Total European Exposures	\$ 189.1	\$ 0.5	\$ 41.1	\$ 69.8	\$ 23.0	\$ 60.1	\$ 294.6	\$ 175.5	\$ 853.6	\$ 30.0

**Reserves for Losses and Loss Adjustment Expenses**

As at September 30, 2017, we had total net loss and loss adjustment expense reserves of \$5,121.1 million (December 31, 2016 — \$4,759.2 million). This amount represented our selected reserves for the ultimate liability for payment of losses and loss adjustment expenses. The following tables analyze gross and net loss and loss adjustment expense reserves by business segment as at September 30, 2017 and December 31, 2016, respectively:

<u>Business Segment</u>	<u>As at September 30, 2017</u>		
	<u>Gross</u>	<u>Reinsurance Recoverable</u>	<u>Net</u>
	(\$ in millions)		
Reinsurance	\$ 3,120.0	\$ (254.2)	\$ 2,865.8
Insurance	3,370.6	(1,115.3)	2,255.3
Total losses and loss expense reserves	<u>\$ 6,490.6</u>	<u>\$ (1,369.5)</u>	<u>\$ 5,121.1</u>

<u>Business Segment</u>	<u>As at December 31, 2016</u>		
	<u>Gross</u>	<u>Reinsurance Recoverable</u>	<u>Net</u>
	(\$ in millions)		
Reinsurance	\$ 2,536.1	\$ (74.0)	\$ 2,462.1
Insurance	2,783.8	(486.7)	2,297.1
Total losses and loss expense reserves	<u>\$ 5,319.9</u>	<u>\$ (560.7)</u>	<u>\$ 4,759.2</u>

For the nine months ended September 30, 2017, there was a \$92.8 million reduction of our estimate of the ultimate net claims to be paid in respect of prior accident years. An analysis of this reduction by business segment for the three and nine months ended September 30, 2017 and 2016 is as follows:

<b>Business Segment</b>	<b>For the Three Months Ended</b>		<b>For the Nine Months Ended</b>	
	<b>September 30, 2017</b>	<b>September 30, 2016</b>	<b>September 30, 2017</b>	<b>September 30, 2016</b>
	<b>(\$ in millions)</b>		<b>(\$ in millions)</b>	
Reinsurance	\$ 17.2	\$ 20.1	\$ 71.0	\$ 52.1
Insurance	0.7	15.3	21.8	26.1
<b>Total losses and loss expense reserves reductions</b>	<b>\$ 17.9</b>	<b>\$ 35.4</b>	<b>\$ 92.8</b>	<b>\$ 78.2</b>

The key elements which gave rise to the net favorable development during the three months ended September 30, 2017 were as follows:

*Reinsurance.* Net reserve releases were \$17.2 million in the current quarter as a result of favorable development across all business lines, the most significant of which was from specialty reinsurance and other property lines.

*Insurance.* Net reserve releases were \$0.7 million in the current quarter mainly as a result of favorable development across marine, aviation and energy business lines offsetting adverse development from the management liability account within our financial and professional business line and strengthening in our property and casualty lines due to increases in loss reserves associated with the purchase of an adverse development cover.

The key elements which gave rise to the net favorable development during the nine months ended September 30, 2017 were as follows:

*Reinsurance.* Net reserve releases were \$71.0 million in the period mainly as a result of favorable development across our property catastrophe and other property reinsurance lines. The specialty reinsurance business lines reported favorable development and the recognition of additional prior year ceded recoveries in respect of an offshore energy-related loss that occurred in Africa. The casualty reinsurance business line reported a net reserve release due to favorable development despite our exposure to the Ogden rate change from reinsurance of U.K. employer's liability and U.K. public liability business and, to a lesser degree, U.K. motor liability reinsurance.

*Insurance.* Net reserve releases were \$21.8 million in the period mainly as a result of favorable development and the recognition of additional prior year ceded recoveries in our marine, aviation and energy business line in respect of an offshore energy-related loss that occurred in Africa, strengthening in property and casualty lines was due to adverse development in our casualty lines due to the change in the Ogden rate which impacted our U.K. employer's liability and U.K. public liability business and increases in loss reserves associated with the purchase of an adverse development cover. Financial and professional lines reported a small increase in prior year reserves due to adverse development in the management liability account.

For a more detailed description see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies" and "Management's Discussion and Analysis of Financial Condition and Results of Operations — Reserves for Losses and Loss Adjustment Expenses" included in our 2016 Annual Report on Form 10-K filed with the SEC.

## Capital Management

The following table shows our capital structure as at September 30, 2017 compared to December 31, 2016:

	<b>As at September 30, 2017</b>	<b>As at December 31, 2016</b>
	<b>(\$ in millions)</b>	
Share capital, additional paid-in capital, retained income and accumulated other comprehensive income attributable to ordinary shareholders	\$ 2,651.0	\$ 2,851.2
Preference shares (liquidation preferences net of issue costs)	511.9	797.1
Long-term debt	549.4	549.3
Loan Notes issued by Silverton <sup>(1)</sup>	103.9	223.4
<b>Total capital</b>	<b>\$ 3,816.2</b>	<b>\$ 4,421.0</b>

<sup>(1)</sup> We do not consider the Loan Notes issued by Silverton to be part of our permanent capital as the noteholders have no recourse to the other assets of the Company.

As at September 30, 2017, total shareholders' equity was \$3,162.9 million compared to \$3,648.3 million as at December 31, 2016. Our total shareholders' equity as at September 30, 2017 included two classes of preference shares with a total value as measured by their respective liquidation preferences of \$511.9 million net of share issuance costs (December 31, 2016 — \$797.1 million, four classes of preference shares).

On January 3, 2017, we elected to redeem all of the outstanding 7.401% Perpetual Non-Cumulative Preference Shares (the "7.401% Preference Shares"). Each holder of a 7.401% Preference Share received \$25 per 7.401% Preference Share, plus any declared and unpaid dividends.

On February 8, 2017, we replaced our existing share repurchase authorization with a new authorization of \$250 million. The share repurchase authorization, which is effective through February 8, 2019, permits us to effect repurchases from time to time through a combination of transactions, including open market repurchases, privately negotiated transactions and accelerated share repurchase transactions.

On April 26, 2017, we announced a 9% increase in our quarterly dividend to our ordinary shareholders from \$0.22 per ordinary share to \$0.24 per ordinary share. On April 21, 2016, we announced a 5% increase in our quarterly dividend to our ordinary shareholders from \$0.21 per ordinary share to \$0.22 per ordinary share.

On July 3, 2017, we elected to mandatorily redeem all of the outstanding 7.250% Perpetual Non-Cumulative Preference Shares (the "7.250% Preference Shares"). Each holder of a 7.250% Preference Share received \$25 per 7.250% Preference Share, plus any declared and unpaid dividends.

Our preference shares are classified in our balance sheet as equity but may receive a different treatment in some cases under the capital adequacy assessments made by certain rating agencies. Preference shares are often referred to as "hybrids" because they have certain attributes of both debt and equity. We monitor the ratio of the total of debt and hybrids to total capital, with total capital being defined as shareholders' equity plus outstanding debt and excluding Loan Notes issued by Silverton. As at September 30, 2017, this ratio was 28.6% (December 31, 2016 — 32.1%).

Our senior notes are the only material debt issued by Aspen Holdings currently outstanding. As at September 30, 2017 and December 31, 2016, the value of the debt less amortization expenses was \$549.4 million and \$549.3 million, respectively. Management monitors the ratio of debt to total capital which was 14.8% as at September 30, 2017 (December 31, 2016 — 13.1%).

In addition, we have also reported Loan Notes issued by Silverton. The fair value of the Loan Notes issued by Silverton as at September 30, 2017 was \$103.9 million (December 31, 2016 — \$223.4 million). For further information relating to Silverton, refer to Note 7 of the "Notes to the Audited Consolidated Financial Statements" in the Company's 2016 Annual Report on Form 10-K filed with the SEC and Note 7 of the unaudited condensed consolidated financial statements contained in this report.

*Access to Capital.* Our business operations are in part dependent on our financial strength and the market's perception thereof, as measured by total shareholders' equity, which was \$3,162.9 million as at September 30, 2017 (December 31, 2016 — \$3,648.3 million). We believe our financial strength provides us with the flexibility and capacity to obtain funds through debt or equity financing. Our continuing ability to access the capital markets is dependent on, among other things, our operating results, market conditions and our perceived financial strength. We regularly monitor our capital and financial position, as well as investment and securities market conditions, both in general and with respect to Aspen Holdings' securities. Our ordinary shares and preference shares are listed on the New York Stock Exchange.

## **Liquidity**

Liquidity is a measure of a company's ability to generate cash flows sufficient to meet short-term and long-term cash requirements of its business operations. Management monitors the liquidity of Aspen Holdings and of each of its Operating Subsidiaries and arranges credit facilities to enhance short-term liquidity resources on a stand-by basis.

*Holding Company.* We monitor the ability of Aspen Holdings to service debt, finance dividend payments to ordinary and preference shareholders and provide financial support to the Operating Subsidiaries. As at September 30, 2017, Aspen Holdings held \$115.2 million of cash, cash equivalents and investments (December 31, 2016 — \$327.1 million) with the reduction largely due to the costs associated with the redemption of the 7.401% Preference Shares on January 3, 2017 and the redemption of the 7.250% Preference Shares on July 3, 2017. Management considers the current cash, cash equivalents and investments taken together with dividends declared or expected to be declared by subsidiary companies and our credit facilities to be sufficient to appropriately satisfy the liquidity requirements of Aspen Holdings. Aspen Holdings' liquidity depends on dividends, capital distributions and interest payments from our Operating Subsidiaries. Aspen Holdings also has recourse to the credit facility described under "Letter of Credit Facilities" below.

The ability of our Operating Subsidiaries to pay us dividends or other distributions is subject to the laws and regulations applicable to each jurisdiction, as well as the Operating Subsidiaries' need to maintain adequate capital requirements to maintain their insurance and reinsurance operations and their financial strength ratings issued by independent rating agencies. On October 21, 2013, and in line with usual market practice for regulated institutions, the Prudential Regulation Authority (the "PRA"), the

regulatory agency which oversees the prudential regulation of insurance companies in the U.K. such as Aspen U.K., requested that it be afforded the opportunity to provide a prior “non-objection” to all future dividend payments made by Aspen U.K. For a further discussion of the various restrictions on our ability and our Operating Subsidiaries’ ability to pay dividends, see Part I, Item 1 “Business — Regulatory Matters” in our 2016 Annual Report on Form 10-K filed with the SEC. For a more detailed discussion of our Operating Subsidiaries’ ability to pay dividends, see Note 15 of the “Notes to the Audited Consolidated Financial Statements” in our 2016 Annual Report on Form 10-K filed with the SEC.

*Operating Subsidiaries.* As at September 30, 2017, the Operating Subsidiaries held \$1,005.9 million (December 31, 2016 — \$1,409.3 million) in cash and short-term investments that are readily realizable securities. Management monitors the value, currency and duration of cash and investments held by the Operating Subsidiaries to ensure that they are able to meet their insurance and other liabilities as they become due and was satisfied that there was a comfortable margin of liquidity as at September 30, 2017 and for the foreseeable future.

On an ongoing basis, our Operating Subsidiaries’ sources of funds primarily consist of premiums written, investment income and proceeds from sales and redemptions of investments. Cash is used primarily to pay reinsurance premiums, losses and loss adjustment expenses, brokerage commissions, general and administrative expenses, taxes, interest and dividends and to purchase new investments. The potential for individual large claims and for accumulations of claims from single events means that substantial and unpredictable payments may need to be made within relatively short periods of time.

We manage these risks by making regular forecasts of the timing and amount of expected cash outflows and ensuring that we maintain sufficient balances in cash and short-term investments to meet these estimates. Notwithstanding this policy, if our cash flow forecast is incorrect, we could be forced to liquidate investments prior to maturity, potentially at a significant loss. Historically, we have not had to liquidate investments at a significant loss to maintain sufficient levels of liquidity.

The liquidity of our Operating Subsidiaries is also affected by the terms of our contractual obligations to policyholders and by undertakings to certain regulatory authorities to facilitate the issue of letters of credit or maintain certain balances in trust funds for the benefit of policyholders. For more information on these arrangements, including a table showing the forms of collateral or other security provided in respect of these obligations and undertakings, see Note 19(a) of the “Notes to the Audited Consolidated Financial Statements” in our 2016 Annual Report on Form 10-K filed with the SEC.

*Consolidated Cash Flows for the Nine Months Ended September 30, 2017.* Total net cash flow generated from operations for the nine months ended September 30, 2017 was \$47.8 million, a \$332.0 million reduction from the comparative period in 2016. The reduction is mainly attributable to increases in ceded reinsurance activities and an increase in paid claims. For the nine months ended September 30, 2017, the cash flow from operations had no adverse effect on the sufficiency of liquidity to meet our operating requirements.

*Letter of Credit Facilities.* For information relating to our credit facilities, refer to Note 16 of the unaudited condensed consolidated contained in this report.

## Contractual Obligations and Commitments

The following table summarizes our contractual obligations under long-term debt, operating leases (net of subleases) and reserves relating to insurance and reinsurance contracts as at September 30, 2017:

	2017	2018	2019	2020	2021	Later Years	Total
	(\$ in millions)						
Operating Lease Obligations	\$ 9.8	\$ 16.2	\$ 15.6	\$ 14.7	\$ 10.0	\$ 80.8	\$ 147.1
Long-Term Debt Obligations <sup>(1)</sup>	—	—	—	250.0	—	300.0	550.0
Reserves for losses and LAE <sup>(2)</sup>	464.3	1,683.0	1,196.2	756.0	464.5	1,926.6	6,490.6
Total	<u>\$ 474.1</u>	<u>\$ 1,699.2</u>	<u>\$ 1,211.8</u>	<u>\$ 1,020.7</u>	<u>\$ 474.5</u>	<u>\$ 2,307.4</u>	<u>\$ 7,187.7</u>

<sup>(1)</sup> The long-term debt obligations disclosed above do not include \$29.0 million of annual interest payments on our outstanding senior notes or dividends payable to holders of our preference shares or the Loan Notes issued by Silverton in the amount of \$103.9 million.

<sup>(2)</sup> In estimating the time intervals into which payments of our reserves for losses and loss adjustment expenses fall, as set out above, we utilized actuarially assessed payment patterns. By the nature of the insurance and reinsurance contracts under which these liabilities are assumed, there can be no certainty that actual payments will fall in the periods shown above and there could be a material acceleration or deceleration of claims payments depending on factors outside our control. The total amount of payments in respect of our reserves, as well as the timing of such payments, may differ materially from our current estimates for the reasons set out in our 2016 Annual Report on Form 10-K under Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies — Reserves for Losses and Loss Expenses” filed with the SEC and due to the factors set out in this report under “Cautionary Statement Regarding Forward-Looking Statements” below.

Further information on operating leases is given in Item 2, “Properties” in our 2016 Annual Report on Form 10-K filed with the SEC.

For a discussion of our derivative instruments, refer to Note 10 to our unaudited condensed consolidated financial statements included in this report.

## Effects of Inflation

Inflation may have a material effect on our consolidated results of operations by its effect on interest rates and on the cost of settling claims. The potential exists, after a catastrophe or other large property loss, for the development of inflationary pressures in a local economy as the demand for services such as construction typically surges. The cost of settling claims may also be increased by global commodity price inflation. We seek to take both these factors into account when setting reserves for any events where we think they may be material.

Our calculation of reserves for losses and loss expenses in respect of casualty business includes assumptions about future payments for settlement of claims and claims-handling expenses, such as medical treatments and litigation costs. We write casualty business in the United States, the United Kingdom and Australia and certain other territories, where claims inflation has in many years run at higher rates than general inflation. To the extent inflation causes these costs to increase above reserves established for these claims, we will be required to increase our loss reserves with a corresponding reduction in earnings. The actual effects of inflation on our results cannot be accurately known until claims are ultimately settled.

In addition to general price inflation we are exposed to a persisting long-term upwards trend in the cost of judicial awards for damages. We seek to take this into account in our pricing and reserving of casualty business.

We also seek to take into account the projected impact of inflation on the likely actions of central banks in the setting of short-term interest rates and consequent effects on the yields and prices of fixed income securities. As at September 30, 2017, we consider that although inflation is currently low, in the medium-term there is a risk that inflation, interest rates and bond yields may rise, resulting in a decrease in the market value of certain of our fixed interest investments.

## Cautionary Statement Regarding Forward-Looking Statements

This report contains, written and we may from time to time make other verbal, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that involve risks and uncertainties, including statements regarding our capital needs, business strategy, expectations and intentions. Statements that use the terms "believe," "do not believe," "anticipate," "expect," "assume," "objective," "target," "could," "would," "should," "plan," "estimate," "project," "outlook," "trends," "future," "seek," "will," "may," "aim," "likely," "continue," "intend," "guidance," "on track," and similar expressions are intended to identify forward-looking statements. These statements reflect our current views with respect to future events and because our business is subject to numerous risks, uncertainties and other factors, our actual results could differ materially from those anticipated in the forward-looking statements. The risks, uncertainties and other factors set forth in our 2016 Annual Report on Form 10-K filed with the SEC and other cautionary statements made in this report, including in Part II, Item 1A "Risk Factors" below, as well as the factors set forth below, should be read and understood as being applicable to all related forward-looking statements wherever they appear in this report.

All forward-looking statements rely on a number of assumptions, estimates and data concerning future results and events and are subject to a number of uncertainties and other factors, many of which are outside our control that could cause actual results to differ materially from such statements.

All forward-looking statements address matters that involve risks and uncertainties. Accordingly, there are or will be important factors that could cause actual results to differ materially from those indicated in these statements. We believe that these factors include, but are not limited to, those set forth under "Risk Factors" in Item 1A of our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017 as filed with the United States SEC and the following:

- the actual development of losses and expenses impacting estimates for Hurricanes Harvey, Irma and Maria and the earthquakes in Mexico, that occurred in the third quarter of 2017;
- the impact of complex and unique causation and coverage issues associated with the attribution of losses to wind or flood damage or other perils such as fire or business interruption relating to such events;
- potential uncertainties relating to reinsurance recoveries, reinstatement premiums and other factors inherent in loss estimation;
- our ability to implement successfully our efficiency initiative to optimize processes and support future growth;
- our ability to successfully implement steps to further optimize the business portfolio, ensure capital efficiency and enhance investment returns;
- the possibility of greater frequency or severity of claims and loss activity, including as a result of natural or man-made (including economic and political risks) catastrophic or material loss events, than our underwriting, reserving, reinsurance purchasing or investment practices have anticipated;
- the assumptions and uncertainties underlying reserve levels that may be impacted by future payments for settlements of claims and expenses or by other factors causing adverse or favorable development, including our assumptions on inflation costs associated with long-tail casualty business which could differ materially from actual experience;
- the political, regulatory and economic effects arising from the vote by the U.K. electorate in favor of a U.K. exit from the E.U. in the referendum held in June 2016 and resulting negotiations;
- the reliability of, and changes in assumptions to, natural and man-made catastrophe pricing, accumulation and estimated loss models;
- decreased demand for our insurance or reinsurance products;
- cyclical changes in the insurance and reinsurance industry;
- the models we use to assess our exposure to losses from future natural catastrophes ("catastrophes") contain inherent uncertainties and our actual losses may differ significantly from expectations;
- our capital models may provide materially different indications than actual results;
- increased competition from existing (re)insurers and from alternative capital providers and insurance-linked funds and collateralized special purpose insurers on the basis of pricing, capacity, coverage terms, new capital, binding authorities to brokers or other factors and the related demand and supply dynamics as contracts come up for renewal;
- our ability to execute our business plan to enter new markets, introduce new products and teams and develop new distribution channels, including their integration into our existing operations;

- our acquisition strategy;
- changes in market conditions in the agriculture industry, which may vary depending upon demand for agricultural products, weather, commodity prices, natural disasters, and changes in legislation and policies related to agricultural products and producers;
- termination of, or changes in, the terms of the U.S. Federal Multiple Peril Crop Insurance Program or the U.S. Farm Bill, including modifications to the Standard Reinsurance Agreement put in place by the Risk Management Agency of the U.S. Department of Agriculture;
- the recent consolidation in the insurance and reinsurance industry;
- loss of one or more of our senior underwriters or key personnel;
- our ability to exercise capital management initiatives, including capital available to pursue our share repurchase program at various levels or to declare dividends, or to arrange banking facilities as a result of prevailing market conditions, the level of catastrophes or other losses or changes in our financial results;
- changes in general economic conditions, including inflation, deflation, foreign currency exchange rates, interest rates and other factors that could affect our financial results;
- the risk of a material decline in the value or liquidity of all or parts of our investment portfolio;
- the risks associated with the management of capital on behalf of investors;
- a failure in our operational systems or infrastructure or those of third parties, including those caused by security breaches or cyber attacks;
- evolving issues with respect to interpretation of coverage after major loss events;
- our ability to adequately model and price the effects of climate cycles and climate change;
- any intervening legislative or governmental action and changing judicial interpretation and judgments on insurers' liability to various risks;
- the risks related to litigation;
- the effectiveness of our risk management loss limitation methods, including our reinsurance purchasing;
- changes in the availability, cost or quality of reinsurance or retrocessional coverage;
- changes in the total industry losses or our share of total industry losses resulting from events, such as catastrophes, that have occurred in prior years or may occur and, with respect to such events, our reliance on loss reports received from cedants and loss adjustors, our reliance on industry loss estimates and those generated by modeling techniques, changes in rulings on flood damage or other exclusions as a result of prevailing lawsuits and case law;
- the impact of one or more large losses from events other than natural catastrophes or by an unexpected accumulation of attritional losses and deterioration in loss estimates;
- the impact of acts of terrorism, acts of war and related legislation;
- any changes in our reinsurers' credit quality and the amount and timing of reinsurance recoverables;
- the continuing and uncertain impact of the current depressed lower growth economic environment in many of the countries in which we operate;
- our reliance on information and technology and third-party service providers for our operations and systems;
- the level of inflation in repair costs due to limited availability of labor and materials after catastrophes;
- a decline in our Operating Subsidiaries' ratings with S&P, A.M. Best or Moody's;
- the failure of our reinsurers, policyholders, brokers or other intermediaries to honor their payment obligations;
- our reliance on the assessment and pricing of individual risks by third parties;
- our dependence on a few brokers for a large portion of our revenues;
- the persistence of heightened financial risks, including excess sovereign debt, the banking system and the Eurozone crisis;
- changes in government regulations or tax laws in jurisdictions where we conduct business;
- changes in accounting principles or policies or in the application of such accounting principles or policies;

- increased counterparty risk due to the credit impairment of financial institutions; and
- Aspen Holdings or Aspen Bermuda becoming subject to income taxes in the United States or the United Kingdom.



In addition, any estimates relating to loss events involve the exercise of considerable judgment in the setting of reserves and reflect a combination of ground-up evaluations, information available to date from brokers and cedants, market intelligence, initial tentative loss reports and other sources. The actuarial range of reserves provided, if any, is based on our then current state of knowledge and explicit and implicit assumptions relating to the incurred pattern of claims, the expected ultimate settlement amount, inflation, and dependencies between lines of business. Due to the complexity of factors contributing to losses and the preliminary nature of the information used to prepare estimates, there can be no assurance that our ultimate losses will remain within stated amounts.

Furthermore, seismic events, such as the Mexico earthquakes, generally have longer development periods than windstorm events, which may be amplified in this instance by dynamics such as the risk of geological liquefaction and the potential for uncertainty in claims adjudication. In respect of Hurricane Maria, recovery efforts are ongoing, with power outages, infrastructure damage, communications disruptions and other issues complicating loss mitigation and estimation. Accordingly, our actual net negative impact from all events noted above, both individually and in the aggregate, will vary from these preliminary estimates, perhaps materially.

The rate changes described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Outlook and Trends” reflect management’s assessment of changes in exposure-adjusted rates on renewals only. This does not include contracts with fundamental changes to terms and conditions. The calculation involves a degree of judgment in relation to comparability of contracts in the different business lines. Due to changes in assumptions underlying the pricing of contracts, the trends in premium rates reflected in our outlook and trends may not be comparable over time. The future profitability of each business line is dependent upon many factors besides the trends in premium rates.

The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included in this report. We undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise or disclose any difference between our actual results and those reflected in such statements.

If one or more of these or other risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, actual results may vary materially from what we projected. All forward-looking statements in this report reflect our current views with respect to future events and are subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, strategy and liquidity. All subsequent written and oral forward-looking statements attributable to us or individuals acting on our behalf are expressly qualified in their entirety by the points made above. You should specifically consider the factors identified in this report which could cause actual results to differ before making an investment decision.

## Reconciliation of Non-U.S. GAAP Financial Measures

Adjusted diluted book value per ordinary share, a non-U.S. GAAP measure, is calculated by deducting from total shareholders' equity the total of: accumulated other comprehensive income; the value of preference shares less issue expenses; the share of equity due to non-controlling interests; and adding back ordinary dividends. The resulting balance is then divided by the diluted number of ordinary shares as at the year end. We believe that adding back ordinary dividends provides a more consistent and useful measurement of total shareholder value, which supplements U.S. GAAP information. We have excluded accumulated other comprehensive income, net of taxes, as unrealized appreciation (depreciation) on investments is primarily the result of interest rate movements and the resultant impact on fixed income securities, and unrealized appreciation (depreciation) on foreign exchange is the result of exchange rate movements between the U.S. Dollar and the functional currencies of our Operating Subsidiaries. Therefore, we believe that excluding these unrealized appreciations (depreciations) provides a more consistent and useful measurement of operating performance, which supplements U.S. GAAP information.

	As at September 30, 2017	As at December 31, 2016
	(\$ in millions, except for share amounts)	
Total shareholders' equity	\$ 3,162.9	\$ 3,648.3
Accumulated other comprehensive income, net of taxes	25.3	5.1
Preference shares less issue expenses	(511.9)	(797.1)
Non-controlling interest	(2.2)	(1.4)
Ordinary dividends	42.0	52.7
Adjusted total shareholders' equity	<u>\$ 2,716.1</u>	<u>\$ 2,907.6</u>
Ordinary shares	59,407,323	59,774,464
Diluted ordinary shares	60,200,021	61,001,071
<b>Book Value Per Share</b>		
Basic	\$ 44.59	\$ 48.79
Diluted	\$ 44.00	\$ 47.89
Adjusted Diluted	\$ 45.12	\$ 47.67

Average equity, a non-U.S. GAAP financial measure, is used in calculating ordinary shareholders return on average equity. It is calculated by taking the arithmetic average of total shareholders' equity on a monthly basis for the stated periods excluding (i) the average share of equity due to non-controlling interests and (ii) the average value of preference shares less issue expenses.

	As at September 30, 2017	As at December 31, 2016
	(\$ in millions)	
Total shareholders' equity	\$ 3,162.9	\$ 3,648.3
Total non-controlling interest	(2.2)	(1.4)
Total preference shares	(511.9)	(797.1)
Average adjustment	190.7	144.2
Average equity	<u>\$ 2,839.5</u>	<u>\$ 2,994.0</u>

Operating income, a non-U.S. GAAP financial measure, is an internal performance measure used by us in the management of our operations and represents after-tax operational results excluding, as applicable, after-tax net realized and unrealized gains or losses, including net realized and unrealized gains and losses on interest rate swaps, after-tax net foreign exchange gains or losses, including net realized and unrealized gains and losses from foreign exchange contracts, net realized gains or losses on investments, amortization of intangible assets and certain non-recurring income or expenses. We exclude after-tax net realized and unrealized capital gains or losses, after-tax net foreign exchange gains or losses and changes in the fair value of derivatives from our calculation of operating income because the amount of these gains or losses is heavily influenced by, and fluctuates in part, according to the availability of market opportunities. We believe these amounts are largely independent of our business and underwriting process and including them distorts the analysis of trends in its operations. In addition to presenting net income determined in accordance with U.S. GAAP, we believe that showing operating income enables investors, analysts, rating agencies and other users of our

financial information to more easily analyze our results of operations in a manner similar to how management analyzes our underlying business performance. Operating income should not be viewed as a substitute for U.S. GAAP net income.

	<u>Nine Months Ended September 30, 2017</u>	<u>Nine Months Ended September 30, 2016</u>
	(\$ in millions)	
Net (loss) income	\$ (81.5)	\$ 274.9
Add (deduct) after tax income:		
Net realized and unrealized investment (gains)	(121.5)	(92.3)
Net realized and unrealized exchange (gains)/losses	(2.5)	10.7
Changes to the fair value of derivatives	19.7	(5.8)
Amortization and other non-recurring expenses	8.2	5.8
Proportion due to non-controlling interest	(0.8)	—
Operating (loss) income after tax and non-controlling interest	(178.4)	193.3
Preference Shares dividends	(28.7)	(28.4)
Net (loss) income available to ordinary shareholders	<u>\$ (207.1)</u>	<u>\$ 164.9</u>

### Item 3. Quantitative and Qualitative Disclosures about Market Risk

We believe we are principally exposed to four types of market risk: interest rate risk, equity risk, foreign currency risk and credit risk.

*Interest rates risk.* Our investment portfolio consists primarily of fixed income securities. Accordingly, our primary market risk exposure is to changes in interest rates. Fluctuations in interest rates have a direct impact on the market valuation of these securities. As interest rates rise, the market value of our fixed income portfolio falls, and the converse is also true. We manage interest rate risk by maintaining a short to medium duration to reduce the effect of interest rate changes on book value. On May 9, 2016, we terminated our interest rate swap program which aimed to partially mitigate our exposure to interest rate. For more information on the terminated interest rate swaps, refer to Item 2 “Cash and Investments — Interest rate swaps” above.

As at September 30, 2017, our fixed income portfolio (including cash and accrued interest within the managed portfolios) had an approximate duration of 3.91 years. The table below depicts interest rates change scenarios and the effects on our interest rate sensitive invested assets:

Effect of Changes in Interest Rates on Portfolio Given a Parallel Shift in the Yield Curve					
Movement in Rates in Basis Points	-100	-50	—	50	100
(\$ in millions, except percentages)					
Market value	7,608.2	7,465.0	7,321.9	7,178.7	7,035.6
Gain/(loss)	286.3	143.1	—	(143.1)	(286.3)
Percentage of portfolio	3.9%	2.0%	—%	(2.0)%	(3.9)%

*Equity risk.* We have invested in equity securities which had a fair market value of \$468.6 million, equivalent to 5.4% of the total of investments, cash and cash equivalents, excluding catastrophe bonds and funds held by variable interest entities (the “Managed Portfolio”), as at September 30, 2017 (December 31, 2016 — \$584.7 million, 6.8%). These equity investments are exposed to equity price risk, defined as the potential for loss in market value due to a decline in equity prices. We believe that the effects of diversification and the relatively small size of our investments in equities relative to total invested assets mitigate our exposure to equity price risk.

*Foreign currency risk.* Our reporting currency is the U.S. Dollar. The functional currencies of our operations include U.S. Dollars, British Pounds, Euros, Canadian Dollars, Swiss Francs, Australian Dollars and Singaporean Dollars. As at September 30, 2017, 88.7% (December 31, 2016 — 89.3%) of our cash, cash equivalents and investments were held in U.S. Dollars, 5.6% (December 31, 2016 — 4.7%) were in British Pounds and 5.7% (December 31, 2016 — 6.0%) were in other currencies. For the nine months ended September 30, 2017, 17.2% (December 31, 2016 — 17.0%) of our gross premiums were written in currencies other than the U.S. Dollar and the British Pound and we expect that a similar proportion will be written in currencies other than the U.S. Dollar and the British Pound in the remainder of 2017.

Other foreign currency amounts are re-measured to the appropriate functional currency and the resulting foreign exchange gains or losses are reflected in the statement of operations. Functional currency amounts of assets and liabilities are then translated into U.S. Dollars. The unrealized gain or loss from this translation, net of tax, is recorded as part of shareholders’ equity. The change in unrealized foreign currency translation gain or loss during the period, net of tax, is a component of comprehensive income. Both the re-measurement and translation are calculated using current exchange rates for the balance sheets and average exchange rates for the statement of operations. We may experience exchange losses to the extent our foreign currency exposure is not properly managed or otherwise hedged, which in turn would adversely affect our results of operations and financial condition. Management estimates that a 10% change in the exchange rate between British Pounds and U.S. Dollars as at September 30, 2017 would have impacted our net reportable British Pound net assets by approximately \$9.2 million for the nine months ended September 30, 2017 (September 30, 2016 — approximately \$12.7 million).

We manage our foreign currency risk by seeking to match our liabilities under insurance and reinsurance policies that are payable in foreign currencies with investments that are denominated in these currencies. This may involve the use of foreign exchange contracts from time to time. A foreign exchange contract involves an obligation to purchase or sell a specified currency at a future date at a price set at the time of the contract. Foreign exchange contracts will not eliminate fluctuations in the value of our assets and liabilities denominated in foreign currencies, but rather allow us to establish a rate of exchange for a future point in time. For a discussion of our derivative instruments including foreign exchange contracts, refer to Note 10 to our unaudited condensed consolidated financial statements included in this report.

*Credit risk.* We have exposure to credit risk primarily as a holder of fixed income securities. Our risk management strategy and investment policy is to invest in debt instruments of high credit quality issuers and to limit the amount of credit exposure with respect to particular ratings categories, business sectors and any one issuer. As at September 30, 2017, the average rating of fixed income securities in our investment portfolio was “AA-” (December 31, 2016 — “AA-”).

In addition, we are exposed to the credit risk of our insurance and reinsurance brokers to whom we make claims payments for our policyholders, as well as to the credit risk of our reinsurers and retrocessionaires who assume business from us. Other than fully collateralized reinsurance, the substantial majority of our reinsurers have a rating of “A” (Excellent), the third highest of fifteen rating levels, or better by A.M. Best and the minimum rating of any of our material reinsurers is “A-” (Excellent), the fourth highest of fifteen rating levels, by A.M. Best.

#### **Item 4. Controls and Procedures**

##### **Evaluation of Disclosure Controls and Procedures**

The Company, under the supervision and with the participation of the Company’s management, including the Company’s Chief Executive Officer and Chief Financial Officer, has evaluated the design and operation of the Company’s disclosure controls and procedures as of the end of the period of this report. Our management does not expect that our disclosure controls or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are 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. As a result 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, within the Company 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. Additionally, controls can be circumvented by the individual acts of some persons or by collusion of two or more people. The design of any system of controls also is based in part upon 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 the degree of compliance with the policies or procedures may deteriorate. As a result of the inherent limitations in a cost-effective control system, misstatement due to error or fraud may occur and not be detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the disclosure requirements are met. Based on the evaluation of the disclosure controls and procedures, the Chief Executive Officer and Chief Financial Officer have concluded that the Company’s disclosure controls and procedures were effective in ensuring that information required to be disclosed in the reports filed or submitted to the SEC under the Exchange Act by the Company is recorded, processed, summarized and reported in a timely fashion, and is accumulated and communicated to management, including the Company’s Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

##### **Changes in Internal Control over Financial Reporting**

The Company’s management has performed an evaluation, with the participation of the Company’s Chief Executive Officer and the Company’s Chief Financial Officer, of changes in the Company’s internal control over financial reporting that occurred during the three and nine months ended September 30, 2017. Based upon that evaluation, the Company’s management is not aware of any change in its internal control over financial reporting that occurred during the three and nine months ended September 30, 2017 that has materially affected, or is reasonably likely to materially affect, the effectiveness of the Company’s internal control over financial reporting. In 2016, the scope of our assessment of the effectiveness of our internal control over financial reporting did not include the internal control over financial reporting at AgriLogic due to the size of the acquired company and the date of acquisition, January 19, 2016. Beginning in 2017, AgriLogic has been included in the scope of our assessment of the effectiveness of our internal control over financial reporting.

## PART II OTHER INFORMATION

### **Item 1. Legal Proceedings**

Similar to the rest of the insurance and reinsurance industry, we are subject to litigation and arbitration in the ordinary course of our business. Our Operating Subsidiaries are regularly engaged in the investigation, conduct and defense of disputes, or potential disputes, resulting from questions of insurance or reinsurance coverage or claims activities. Pursuant to our insurance and reinsurance arrangements, many of these disputes are resolved by arbitration or other forms of alternative dispute resolution. In some jurisdictions, noticeably the U.S., a failure to deal with such disputes or potential disputes in an appropriate manner could result in an award of “bad faith” punitive damages against our Operating Subsidiaries. In addition, we may be subject to lawsuits and regulatory actions in the normal course of business that do not arise from, or directly relate to, insurance and reinsurance coverage or claims. This category of litigation typically involves, among other things, allegations of underwriting errors or omissions, employment claims or regulatory activity.

While any legal or arbitration proceedings contain an element of uncertainty, we do not believe that the eventual outcome of any specific litigation, arbitration or alternative dispute resolution proceedings to which we are currently a party will have a material adverse effect on the financial condition of our business as a whole.

### **Item 1A. Risk Factors**

You should carefully consider the risk factors and all other information set forth in our Annual Report on Form 10-K for the year ended December 31, 2016 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017 as filed with the SEC and as supplemented by the following risk factors and other information in this report. These risks could materially affect our business, results of operations or financial condition. Please refer to the “Cautionary Statement Regarding Forward-Looking Statements” provided above in this report.

### **Our operating effectiveness and efficiency initiative aimed at optimizing our business processes is subject to execution risk, may subject our business to other risks and may not realize the intended benefits.**

We have launched, and plan to continue to implement, our program to enhance operating effectiveness and efficiency and to enhance our market position (the “**Program**”). The Program presents potential uncertainties and risks that may impact our ability to achieve anticipated operating enhancements and/or cost reductions, or otherwise impact our business including:

- our ability to successfully develop and execute the Program to create operating and cost efficiencies through focus on improving several operational levers;
- charges relating to the Program being different from those initially estimated, including changes in the size and components of different aspects;
- changes in the planned timing of the Program;
- the result and timing of employee consultation processes and related regulations in certain jurisdictions where we operate;
- disruption in our business associated with the Program and related activities;
- whether the Program provides a sufficient return on our capital expenditure investment over time; and
- whether new IT and data tools enable intended results.

In addition, as part of the Program we may reduce employee headcount and these actions may adversely disrupt operating activities, may negatively affect employee morale and loyalty and may make it more difficult to retain or rehire key personnel. Additionally, a lower headcount may result in a decrease in gross written premiums across particular insurance and reinsurance lines due to lower production in our accounts.

If we are not successful in developing and executing the Program, we may not be able to achieve targeted expense savings within the expected time frame, which could adversely impact our business, results of operations and financial condition. Our failure to achieve targeted operating enhancements and/or cost reductions could also result in the implementation of additional restructuring related activities, which may be dilutive to our earnings in the short term. For more information, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Outlook and Trends.”

### **Changes in U.S. federal income tax law or the manner in which it is interpreted could materially adversely affect the non-U.S. insurance industry and our results of operations.**

Legislation has been introduced in the U.S. Congress intended to eliminate certain perceived tax advantages of companies (including insurance companies) that have legal domiciles outside the United States but have certain U.S. connections. It is possible that legislation could be introduced in and enacted by the current Congress or future Congresses that could have an adverse impact on us. For example, legislation based on the Tax Reform Task Force Blueprint dated June 24, 2016, which recommends moving to a consumption or destination-based tax system and provides for border adjustments taxing imports to raise revenue to offset

lost revenue from a reduction in the U.S. corporate income tax rate to 20 percent, may be introduced and enacted. The application of a destination-based tax with border adjustments to the cross-border insurance and reinsurance markets would be complex, and the manner in which it would be implemented and enforced is uncertain. If a destination-based tax with border adjustments is enacted and made applicable to across-border insurance and reinsurance, its impact on the insurance industry may adversely impact the results of our operations.

In April 2017, the Trump Administration released a statement of principles relating to personal and corporate tax reform. In respect of business taxation, the principles document called for, among other things, the adoption of a 15% business tax rate, the imposition of a territorial U.S. tax system, a one-time tax on U.S. assets held in other jurisdictions, and the elimination of tax breaks for special interests. The principles document did not address the border adjustment proposals reflected in the Tax Reform Task Force Blueprint.

There are many other comprehensive tax reform proposals being discussed in Congress and by the Trump Administration. For example, it is possible that past proposals could return that would limit or deny U.S. insurers and reinsurers the deduction for reinsurance placed with non-U.S. affiliates. Such changes, if adopted, could increase taxation of certain activities and structures in our industry. Tax reform proposals, including those being discussed among members of Congress and the Trump Administration at the time of this report, may be announced in the fourth quarter of 2017 although such proposals remain subject to significant uncertainty as to their final form or if they will be adopted. Accordingly, material uncertainty remains as to the possibility, terms, likelihood and timing of any U.S. tax law change. In addition, existing interpretations of U.S. federal income tax laws could change also resulting in an adverse impact on us.

**A failure in our operational systems or infrastructure or those of third parties, including those caused by security breaches, cyber-attacks or data protection failures, could disrupt our business, damage our reputation and causes losses.**

Our operations rely on the secure processing, storage, and transmission of confidential and other information and assets, including in our computer systems and networks. Our business, including our ability to adequately price products and services, establish reserves, provide an effective and secure service to our customers, value our investments and report our financial results in a timely and accurate manner, depends significantly on the integrity, availability and timeliness of the data we maintain, as well as the data and assets held through third party outsourcers, service providers and systems.

In an effort to ensure the integrity of such data, we implement new security measures and systems and improve or upgrade our existing security measures and systems on a continuing basis. Although we have implemented administrative and technical controls and take protective actions to reduce the risk of cyber incidents and to protect our information technology and assets, and we endeavor to modify such procedures as circumstances warrant and negotiate agreements with third party providers to protect our assets, such measures may be insufficient to prevent, among other things, unauthorized access, computer viruses, malware or other malicious code or cyber-attack, catastrophic events, system failures and disruptions (including in relation to new security measures and systems), employee errors or malfeasance, third party (including outsourced service providers) errors or malfeasance, loss of assets and other security events (each, a “Security Event”). Like other global companies, we have from time to time experienced, and are likely to continue to be subject to, Security Events, none of which to date have had a material adverse impact on our business, results of operations or financial condition. As the breadth and complexity of our security infrastructure continues to grow, the potential risk of a Security Event increases. If additional Security Events occur, these events may jeopardize our or our clients’ or counterparties’ confidential and other information processed and stored with us, and transmitted through our computer systems and networks, or otherwise cause interruptions, delays, or malfunctions in our, our clients’, counterparties’ or third parties’ operations, or result in data loss or loss of assets which could result in significant losses and/or fines, reputational damage or a material adverse effect on our business, financial condition or operating results. We may be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures and to pursue recovery of lost data or assets and we may be subject to litigation and financial losses. We currently maintain cyber liability insurance that provides third party or first party liability coverages to protect us, subject to policy limits and coverages, against certain events that could be a Security Event. However, a Security Event could nonetheless have a material adverse effect on our operating results or financial condition.

We outsource certain technology and business process functions to third parties and may increasingly do so in the future. If we do not effectively develop, implement and monitor our outsourcing strategy, third party providers do not perform as anticipated or we experience technological or other problems with a transition, we may not realize productivity improvements or cost efficiencies and may experience operational difficulties, increased costs and loss of business. Our outsourcing of certain technology and business processes functions to third parties may expose us to enhanced risks related to data security, which could result in monetary and reputational damages. In addition, our ability to receive services from third party providers may be impacted by cultural differences, political instability, unanticipated regulatory requirements or policies. As a result, our ability to conduct our business may be adversely affected.

The regulatory environment surrounding information security and privacy is increasingly demanding. We are subject to numerous U.S. federal and state laws and non-U.S. regulations governing the protection of personal and confidential information of our clients or employees, including in relation to medical records, credit card data and financial information. On May 25, 2016,

the European General Data Protection Regulation (the “GDPR”) also entered into force following four years of negotiation. The GDPR repeals the Data Protection Directive (95/46/EC) and will be directly applicable in all E.U. member states from May 25, 2018. We will be subject to the GDPR when offering goods and services to E.U. based data subjects (regardless of whether involving our E.U. based subsidiary or operations). The GDPR sets out a number of requirements that must be complied with when handling the personal data of such E.U. based data subjects including: the obligation to appoint data protection officers in certain circumstances; new rights for individuals to be “forgotten” and rights to data portability; the principal of accountability and the obligation to make public notification of significant data breaches. These laws and regulations are increasing in complexity and number, change frequently and sometimes conflict. In particular, as the E.U. states reframe their national legislation to prepare for and harmonize with the GDPR, we will need to monitor compliance with all relevant E.U. member states’ laws and regulations, including where permitted derogations from the GDPR are introduced.

The introduction of the GDPR, and any resultant changes in E.U. member states’ national laws and regulations, may increase our compliance obligations and may necessitate the review and implementation of policies and processes relating to our collection and use of data. This increase in compliance obligations could also lead to an increase in compliance costs which may have an adverse impact on our business, financial condition or results of operations.

If any person, including any of our employees or those with whom we share such information, negligently disregards or intentionally breaches our established controls with respect to our client or employee data, or otherwise mismanages or misappropriates that data, we could be subject to significant monetary damages, regulatory enforcement actions, fines and/or criminal prosecution in one or more jurisdictions. For example, under the GDPR there are significant new punishments for non-compliance which could result in a penalty of up to 4% of a firm’s global annual revenue. In addition, a data breach could result in negative publicity which could damage our reputation and have an adverse effect on our business, financial condition or results of operations.

On March 1, 2017, new cybersecurity rules took effect for financial institutions, insurers and certain other companies supervised by the New York Department of Financial Services (the “NYDFS Cybersecurity Regulation”). The NYDFS Cybersecurity Regulation impose significant new regulatory burdens intended to protect the confidentiality, integrity and availability of information systems.

In addition, at the NAIC Summer 2017 National Meeting, the Cybersecurity (EX) Working Group and the Innovation and Technology (EX) Task Force of the NAIC approved the Insurance Data Security Model Law (“Model Law”), which would require insurers, insurance producers and other entities required to be licensed under state insurance laws to comply with certain requirements under state insurance laws, such as developing and maintaining a written information security program, conducting risk and overseeing the data security practices of third-party vendors. The Model Law closely resembles the NYDFS Cybersecurity Regulation, and therefore we would be compliant with the Model Law if we were also compliant with the NYDFS Cybersecurity Regulation. The Model Law will be considered by the NAIC Executive Committee and, if approved, the Joint Meeting of the Executive Committee and Plenary. We cannot predict whether any such proposed laws or regulatory changes will be adopted by the NAIC or individual states, but the impact on our business, financial condition or results of operations is likely to be minimal provided that we are already compliant with the NYDFS Cybersecurity Regulation.

Despite the contingency plans and facilities we have in place and our efforts to observe the regulatory requirements surrounding information security, our ability to conduct business may be adversely affected by a disruption of the infrastructure that supports our business in the communities in which we are located, or of outsourced services or functions, including a disruption involving electrical, communications, transportation, or other services we use. If a disruption occurs in one location and our employees in that location are unable to occupy our offices and conduct business or communicate with or travel to other locations, our ability to service and interact with clients may suffer and we may not be able to successfully implement contingency plans that depend on communication or travel. If sustained or repeated, such business interruption, system failure, service denial or data loss and/or damage could result in a deterioration of our ability to write and process business, provide customer service, pay claims in a timely fashion or perform other necessary business functions.

## **Item 2. *Unregistered Sales of Equity Securities and Use of Proceeds***

The following table provides information regarding purchases by the Company during the quarter ended September 30, 2017 of the Company’s ordinary shares.



	Total Number of Shares (or Units) Purchased	Weighted Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) That May Yet Be Purchased Under the Plans or Programs (\$ in millions)
July 1, 2017 to July 31, 2017	—	\$ —	—	\$ —
August 1, 2017 to August 31, 2017	201,294	\$ 45.15	201,294	\$ —
September 1, 2017 to September 30, 2017	249,974	\$ 43.65	249,974	\$ —
Total <sup>(1)</sup>	451,268	\$ 44.32	451,268	\$ 220.0

<sup>(1)</sup> During the third quarter of 2017, the Company repurchased 451,268 ordinary shares. The Company had \$220.0 million remaining under its current share buyback authorization as at September 30, 2017.

### **Item 3. Defaults Upon Senior Securities**

None.

### **Item 4. Mine Safety Disclosures**

None.

### **Item 5. Other Information**

#### Disclosure of Certain Activities Relating to Iran

Section 13(r) of the Securities Exchange Act of 1934, as amended (“Section 13(r)”), requires all issuers that file annual or quarterly reports with the SEC to disclose certain activities, transactions or dealings with Iran. Many of the activities, transactions and dealings that Section 13(r) requires to be reported were previously subject to U.S. sanctions or prohibited by applicable local law. On January 16, 2016, the United States and the E.U. eased sanctions against Iran pursuant to the Joint Comprehensive Plan of Action, and many of the reportable activities, transactions and dealings under Section 13(r) are no longer subject to U.S. sanctions and no longer prohibited by applicable local law.

Certain of our operations located outside the United States underwrite marine and energy treaties on a worldwide basis and, as a result, the underlying insurance and reinsurance portfolios may have exposure to the Iranian petroleum resources, refined petroleum, and petrochemical industries. For example, certain of our operations underwrite global marine hull and cargo policies that provide coverage for vessels navigating into and out of ports worldwide, including Iran. We do not believe that any coverage we have provided has directly or significantly facilitated or contributed to the Iranian petroleum resources, refined petroleum, or petrochemical industry.

For the quarter ended September 30, 2017, we are not aware of any premium apportionment with respect to underwriting insurance or reinsurance activities reportable under Section 13(r). Should any such risks have entered into the stream of commerce covered by the insurance and reinsurance portfolios underlying our treaties, we believe that the premiums associated with such business would be immaterial.

**Item 6. Exhibits**

(a) The following sets forth those exhibits filed pursuant to Item 601 of Regulation S-K:

<b><u>Exhibit Number</u></b>	<b><u>Description</u></b>
31.1	<a href="#"><u>Officer Certification of Christopher O’Kane, Chief Executive Officer of Aspen Insurance Holdings Limited, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed with this report.</u></a>
31.2	<a href="#"><u>Officer Certification of Scott Kirk, Chief Financial Officer of Aspen Insurance Holdings Limited, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed with this report.</u></a>
32.1	<a href="#"><u>Officer Certification of Christopher O’Kane, Chief Executive Officer of Aspen Insurance Holdings Limited, and Scott Kirk, Chief Financial Officer of Aspen Insurance Holdings Limited, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, submitted with this report.</u></a>
101	The following financial information from Aspen Insurance Holdings Limited’s quarterly report on Form 10-Q for the quarter and nine months ended September 30, 2017 formatted in XBRL: (i) Unaudited Condensed Consolidated Balance Sheets at September 30, 2017 and December 31, 2016; (ii) Unaudited Condensed Consolidated Statements of Operations and Other Comprehensive Income for the three and nine ended September 30, 2017 and 2016; (iii) Unaudited Condensed Consolidated Statements of Shareholders’ Equity for the nine months ended September 30, 2107 and 2016; (iv) Unaudited Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2017 and 2016; and (v) Notes to Unaudited Condensed Consolidated Financial Statements, tagged as blocks of text and in detail.*

\* As provided in Rule 406T of Regulation S-T, this information is “furnished” herewith and not “filed” for purposes of Sections 11 and 12 of the Securities Act and Section 18 of the Exchange Act. Such exhibit will not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act unless Aspen Holdings specifically incorporates it by reference.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**ASPEN INSURANCE HOLDINGS LIMITED**  
(Registrant)

Date: October 31, 2017

By: /s/ Christopher O'Kane  
Christopher O'Kane  
Chief Executive Officer

Date: October 31, 2017

By: /s/ Grahame Dawe  
Grahame Dawe  
Chief Accounting Officer

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## Section 2: EX-31.1 (EXHIBIT 31.1)

**Exhibit 31.1**

### CERTIFICATIONS

I, Christopher O'Kane, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Aspen Insurance Holdings Limited;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

- a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ Christopher O'Kane

Date: October 31, 2017

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Name: Christopher O'Kane  
Title: Chief Executive Officer

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## Section 3: EX-31.2 (EXHIBIT 31.2)

**Exhibit 31.2**

### CERTIFICATIONS

I, Scott Kirk, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Aspen Insurance Holdings Limited;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ Scott Kirk

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## Section 4: EX-32.1 (EXHIBIT 32.1)

**Exhibit 32.1**

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with this quarterly report on Form 10-Q of Aspen Insurance Holdings Limited (the "Company") for the three months ended September 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Christopher O'Kane as Chief Executive Officer and Scott Kirk as Chief Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 31, 2017

By: /s/ Christopher O'Kane

Name: Christopher O'Kane  
Title: Chief Executive Officer

Date: October 31, 2017

By: /s/ Scott Kirk

Name: Scott Kirk  
Title: Chief Financial Officer

This certification accompanies the Report pursuant to § 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Company for purposes of § 18 of the Securities Exchange Act of 1934, as amended.

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