# Validus Reinsurance, Ltd.
(Incorporated in Bermuda)

Consolidated Financial Statements
**For the Years Ended December 31, 2017 and 2016**
(Expressed in thousands of U.S. dollars, except share amounts)

pwc

April 17, 2018

## Report of Independent Auditors

### To the Board of Directors and Shareholder of Validus Reinsurance, Ltd.

We have audited the accompanying consolidated financial statements of Validus Reinsurance, Ltd. and its subsidiaries, which comprise the consolidated balance sheets as of December 31, 2017 and December 31, 2016, and the related consolidated statements of income and comprehensive income, of shareholder's equity and of cash flows for the years then ended.

**Management's responsibility for the consolidated financial statements**
Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' responsibility**
Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**
In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Validus Reinsurance, Ltd. and its subsidiaries as of December 31, 2017 and December 31, 2016, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

**Other Matter**
Accounting principles generally accepted in the United States of America require that the required supplemental information under Accounting Standards Update 2015-09, *Disclosure about Short-Duration Contracts* labelled as Unaudited within Note 12 on pages 37 to 40 be presented to supplement

*PricewaterhouseCoopers Ltd., Chartered Professional Accountants, P.O. Box HM 1171, Hamilton HM EX, Bermuda*
*T: +1 (441) 295 2000, F: +1 (441) 295 1242, www.pwc.com/bermuda*

the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Financial Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

PricewaterhouseCoopers Ltd.

**Chartered Professional Accountants**

# Validus Reinsurance, Ltd.
## Consolidated Balance Sheets
## As at December 31, 2017 and 2016
(Expressed in thousands of U.S. dollars, except share amounts)

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| **Assets** | | |
| Fixed maturity investments trading, at fair value (amortized cost: 2017—$4,719,474; 2016—$4,453,885) | $ 4,701,350 | $ 4,428,165 |
| Short-term investments trading, at fair value (amortized cost: 2017—$165,720; 2016—$117,562) | 165,720 | 117,558 |
| Other investments, at fair value (cost: 2017—$300,610; 2016—$343,337) | 345,158 | 401,123 |
| Investments in investment affiliates, equity method (cost: 2017—$61,944; 2016—$84,840) | 100,137 | 100,431 |
| Cash and cash equivalents | 526,099 | 302,255 |
| Restricted cash | 62,847 | 15,000 |
| Total investments and cash | 5,901,311 | 5,364,532 |
| Investments in operating affiliates, equity method (cost: 2017—$120,071; 2016—$232,981) | 145,061 | 309,537 |
| Structured notes receivable from AlphaCat ILS fund | 10,000 | — |
| Premiums receivable | 654,559 | 452,497 |
| Deferred acquisition costs | 208,945 | 209,666 |
| Prepaid reinsurance premiums | 85,847 | 29,601 |
| Securities lending collateral | 2,717 | 9,779 |
| Loss reserves recoverable | 915,877 | 221,963 |
| Paid losses recoverable | 55,876 | 14,085 |
| Income taxes recoverable | 8,969 | 4,017 |
| Deferred tax asset | 47,689 | 38,887 |
| Receivable for investments sold | 11,931 | 3,622 |
| Balances due from affiliates | 185,773 | 63,527 |
| Goodwill | 209,180 | 176,365 |
| Intangible assets | 79,566 | 21,669 |
| Accrued investment income | 23,548 | 20,402 |
| Funds withheld | 1,440,804 | 1,502,558 |
| Other assets | 357,192 | 33,162 |
| **Total assets** | $ 10,344,845 | $ 8,475,869 |
| **Liabilities** | | |
| Reserve for losses and loss expenses | $ 3,844,292 | $ 2,738,203 |
| Unearned premiums | 1,060,999 | 989,876 |
| Reinsurance balances payable | 311,697 | 45,011 |
| Securities lending payable | 2,717 | 10,245 |
| Income taxes payable | 302 | 682 |
| Deferred tax liability | 4,600 | 3,331 |
| Payable for investments purchased | 72,644 | 23,700 |
| Balances due to affiliates | 241,406 | 145,280 |
| Debentures payable | 249,358 | 247,426 |
| Accounts payable and accrued expenses | 308,207 | 73,663 |
| **Total liabilities** | 6,096,222 | 4,277,417 |
| **Shareholder's equity** | | |
| Common shares, 1,000,000 authorized, par value $1.00 | | |
| Issued and outstanding (2017: 1,000,000; 2016: 1,000,000) | 1,000 | 1,000 |
| Additional paid-in-capital | 2,862,372 | 2,719,408 |
| Accumulated other comprehensive income | 4,782 | 23 |
| Retained earnings | 1,380,469 | 1,478,021 |
| **Total shareholder's equity** | 4,248,623 | 4,198,452 |
| **Total liabilities and shareholder's equity** | $ 10,344,845 | $ 8,475,869 |

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

## Validus Reinsurance, Ltd.

Consolidated Statements of Income and Comprehensive Income

**For the Years Ended December 31, 2017 and 2016**

(Expressed in thousands of U.S. dollars)

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| **Revenues** | | |
| Gross premiums written | $ 2,568,293 | $ 2,325,197 |
| Reinsurance premiums ceded | (390,298) | (230,147) |
| Net premiums written | 2,177,995 | 2,095,050 |
| Change in unearned premiums | 101,093 | (95,956) |
| Net premiums earned | 2,279,088 | 1,999,094 |
| Net investment income | 137,708 | 127,832 |
| Net realized gains on investments | 6,579 | 5,915 |
| Net change in unrealized (losses) gains on investments | (6,426) | 28,382 |
| Income (loss) from investment affiliates | 22,010 | (2,083) |
| Other insurance related income and other income | 53,002 | 63,994 |
| Foreign exchange losses | (7,260) | (208) |
| **Total revenues** | 2,484,701 | 2,222,926 |
| **Expenses** | | |
| Losses and loss expenses | 1,627,240 | 1,020,245 |
| Policy acquisition costs | 596,638 | 579,850 |
| General and administrative expenses | 203,299 | 161,330 |
| Share compensation expenses | 11,646 | 11,617 |
| Finance expenses | 14,429 | 12,157 |
| Transaction expenses | 3,261 | — |
| **Total expenses** | 2,456,513 | 1,785,199 |
| **Income before taxes and (loss) income from operating affiliates** | 28,188 | 437,727 |
| Tax benefit | 10,409 | 19,018 |
| (Loss) income from operating affiliates | (25,790) | 19,964 |
| Income from structured notes receivable from AlphaCat ILS fund | 641 | 615 |
| **Net income** | $ 13,448 | $ 477,324 |
| **Net income** | $ 13,448 | $ 477,324 |
| Other comprehensive income (loss), net of tax: | | |
| Change in minimum pension liability | 2,869 | (484) |
| Change in fair value of cash flow hedges | 1,890 | — |
| Other comprehensive income (loss), net of tax | 4,759 | (484) |
| **Comprehensive income** | $ 18,207 | $ 476,840 |

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

# Validus Reinsurance, Ltd.
Consolidated Statements of Shareholder's Equity
**For the Years Ended December 31, 2017 and 2016**
(Expressed in thousands of U.S. dollars)

| | | December 31, 2017 | | December 31, 2016 |
|---|---|---|---|---|
| **Common shares** | | | | |
| Balance, beginning and end of year | $ | 1,000 | $ | 1,000 |
| **Additional paid-in-capital** | | | | |
| Balance, beginning of year | $ | 2,719,408 | $ | 2,900,190 |
| Contributions from parent company | | 250,000 | | 100,000 |
| Distributions to parent company | | (115,000) | | (290,000) |
| Share compensation expenses | | 11,646 | | 11,617 |
| Share compensation issuance costs | | (3,682) | | (2,399) |
| Balance, end of year | $ | 2,862,372 | $ | 2,719,408 |
| **Accumulated other comprehensive income** | | | | |
| Balance, beginning of year | $ | 23 | $ | 507 |
| Other comprehensive income (loss) net of tax | | 4,759 | | (484) |
| Balance, end of year | $ | 4,782 | $ | 23 |
| **Retained earnings** | | | | |
| Balance, beginning of year | $ | 1,478,021 | $ | 1,000,697 |
| Dividends paid | | (111,000) | | — |
| Net income | | 13,448 | | 477,324 |
| Balance, end of year | $ | 1,380,469 | $ | 1,478,021 |
| **Total shareholder's equity** | $ | 4,248,623 | $ | 4,198,452 |

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

# Validus Reinsurance, Ltd.

Consolidated Statements of Cash Flows

**For the Years Ended December 31, 2017 and 2016**

(Expressed in thousands of U.S. dollars)

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| **Cash flows provided by (used in) operating activities** | | |
| Net income | $ 13,448 | $ 477,324 |
| Adjustments to reconcile net income to cash provided by operating activities: | | |
| Share compensation expenses | 11,646 | 11,617 |
| Loss (income) from investment and operating affiliates, net | 3,780 | (17,881) |
| Net realized and change in net unrealized gains on investments | (153) | (34,297) |
| Amortization of intangible assets | 6,183 | 1,505 |
| Foreign exchange (gains) losses included in net income | (7,106) | 4,243 |
| Amortization of premium on fixed maturity investments | 10,749 | 13,473 |
| Change in operational balance sheet items: | | |
| Premiums receivable | 362,390 | (68,663) |
| Deferred acquisition costs | (3,395) | (28,490) |
| Prepaid reinsurance premiums | 170,911 | (4,083) |
| Loss reserves recoverable | (639,715) | (93,526) |
| Paid losses recoverable | (23,803) | (5,324) |
| Reserve for losses and loss expenses | 1,009,316 | (25,202) |
| Unearned premiums | (335,525) | 100,039 |
| Reinsurance balances payable | (27,515) | 17,370 |
| Funds withheld | 61,754 | 38,041 |
| Other operational balance sheet items, net | (309,013) | (30,148) |
| **Net cash provided by operating activities** | 303,952 | 355,998 |
| **Cash flows provided by (used in) investing activities** | | |
| Proceeds on sales of fixed maturity investments | 2,609,153 | 2,022,156 |
| Proceeds on maturities of fixed maturity investments | 373,179 | 276,664 |
| Purchases of fixed maturity investments | (3,174,471) | (2,477,375) |
| (Purchases) sales of short-term investments, net | (26,592) | 76,443 |
| Sales (purchases) of other investments, net | (19,030) | (45,900) |
| Purchase of subsidiary, net of cash | (183,923) | — |
| Purchase of related subsidiary, net of cash | — | 12,393 |
| Decrease (increase) in securities lending collateral | 7,062 | (4,916) |
| Investments in operating affiliates | (9,844) | (36,136) |
| Redemptions from operating affiliates | 153,686 | 65,553 |
| Purchases of structured notes from AlphaCat ILS fund, net | (1,135) | (8,865) |
| (Investments) deployment of subscriptions made in advance with AlphaCat ILS fund, net | (13,305) | 25,102 |
| Distributions from (investments in) investment affiliates, net | 22,304 | (14,841) |
| **Net cash used in investing activities** | (262,916) | (109,722) |
| **Cash flows provided by (used in) financing activities** | | |
| Share compensation issuance costs | (3,682) | (2,399) |
| Proceeds drawn on credit facilities | 206,000 | — |
| Dividends paid | (111,000) | — |
| Contributions from parent company | 250,000 | — |
| Distributions to parent company | (115,000) | (290,000) |
| (Decrease) increase in securities lending payable | (7,528) | 4,916 |
| **Net cash provided by (used in) financing activities** | 218,790 | (287,483) |
| Effect of foreign currency rate changes on cash and cash equivalents | 11,865 | (4,727) |
| **Net increase (decrease) in cash and cash equivalents and restricted cash** | 271,691 | (45,934) |
| **Cash and cash equivalents and restricted cash—beginning of year** | 317,255 | 363,189 |
| **Cash and cash equivalents and restricted cash—end of year** | $ 588,946 | $ 317,255 |
| **Supplemental information** | | |
| Taxes paid during the year | $ 3,974 | $ 2,485 |
| Interest paid during the year | $ 11,973 | $ 9,801 |
| **Noncash operating activities** | | |
| Other operational balance sheet items, net | $ — | $ (100,000) |
| **Noncash financing activities** | | |
| Capital contribution from parent company | $ — | $ 100,000 |

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

**1. Nature of the business**

Validus Reinsurance, Ltd. (the "Company" or "Validus Re") was incorporated under the laws of Bermuda on October 19, 2005. The Company is 100% owned by Validus Holdings, Ltd. (the "parent company" or "Validus Holdings") which was also incorporated under the laws of Bermuda on October 19, 2005. Validus Re is registered as a Class 4 insurer under The Insurance Act 1978 of Bermuda, amendments thereto and related Regulations ("The Act"). The Company primarily offers treaty reinsurance coverage on a global basis in the Property and Specialty lines markets.

On September 4, 2009, pursuant to an Amalgamation Agreement, Validus Holdings acquired all of IPC Holdings Ltd. ("IPC") outstanding common shares in exchange for 0.9727 common shares of Validus Holdings and $7.50 cash per IPC's common share. IPC's operations were focused on short-tail lines of reinsurance. The primary lines in which IPC conducted business were property catastrophe reinsurance and, to a limited extent, property-per-risk excess, aviation (including satellite) and other short-tail reinsurance on a worldwide basis. The acquisition of IPC was undertaken to gain a strategic advantage in the reinsurance market and increase the parent company's capital base. The investment in IPC was transferred to the Company by Validus Holdings in September 2009 as $1,325,398 of additional paid-in capital.

On November 30, 2012, pursuant to a merger agreement, Validus Holdings acquired all of the outstanding common shares of Flagstone Reinsurance Holdings, S.A. ("Flagstone") in exchange for 0.1935 common shares of Validus Holdings and $2.00 cash per Flagstone common share (the "Flagstone Acquisition"). The investment in Flagstone was transferred to the Company by Validus Holdings on November 30, 2012 as $720,123 of additional paid-in capital, strengthening the Company's leading property catastrophe reinsurance and short-tail specialty insurance platform.

On April 25, 2013, the Company acquired Validus Re Americas, Ltd. (formerly Longhorn Re, Ltd.), a single contract, Bermuda-domiciled crop reinsurer, for cash equal to its tangible net assets.

On October 9, 2013, the Company completed the sale of its wholly–owned Cyprus-domiciled subsidiary, Flagstone Alliance Insurance and Reinsurance plc. for net cash proceeds of $21,400.

On October 2, 2014, the Company acquired all of the outstanding shares of Western World Insurance Group, Inc. ("Western World"), a U.S.-based specialty excess and surplus lines insurance company, for an aggregate purchase price of $692,305 in cash. The Western World acquisition was undertaken to enhance the Company's access to the specialty U.S. commercial insurance market. Additional factors that added to the value of Western World included its State Licenses, Brand Name, Distribution Network and Technology.

On May 1, 2017, the Company, through it's wholly–owned subsidiary Western World, acquired all of the outstanding capital stock of Crop Risk Services, Inc. ("CRS"), a primary crop insurance managing general agent ("MGA"), for an aggregate purchase price of $185,576 in cash. The CRS acquisition was undertaken to expand the Company's presence in U.S. primary specialty lines. Refer to Note 5, *"Business combinations,"* for additional information.

***Reportable lines of business***

During the fourth quarter of 2017, to better align the Company's disclosures with its current strategy, the Company changed its primary lines of business to "Property," "Specialty - Short-tail" and "Specialty - Other." The change in primary lines of business had no impact on the Company's historical consolidated financial positions, results of operations or cash flows as previously reported. Where applicable, all prior periods presented have been reclassified to conform to this new presentation.

## 2. Basis of preparation and consolidation

These Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The Company consolidates in these Consolidated Financial Statements the results of operations and financial position of all voting interest entities ("VOE") in which the Company has a controlling financial interest and all variable interest entities ("VIE") in which the Company is considered to be the primary beneficiary. The consolidation assessment, including the determination as to whether an entity qualifies as a VIE or VOE, depends on the facts and circumstances surrounding each entity.

All significant intercompany accounts and transactions have been eliminated.

The preparation of these Consolidated Financial Statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. While the amounts included in the Consolidated Financial Statements reflect management's best estimates and assumptions, actual results could differ from those estimates. The Company's principal estimates include:

- the reserve for losses and loss expenses;
- the premium written on a line slip or proportional basis;
- the valuation of goodwill and intangible assets;
- the loss reserves recoverable, including the provision for uncollectible amounts; and
- the valuation of invested assets and other financial instruments.

The term "ASC" used in these notes refers to Accounting Standard Codification issued by the United States Financial Accounting Standards Board (the "FASB").

## 3. Significant accounting policies

The following is a summary of significant accounting policies adopted by the Company:

### (a) Premiums

Reinsurance contracts can be written on a risks attaching or losses occurring basis. Under risks attaching reinsurance contracts, all claims from cedants' underlying policies incepting during the contract period are covered, even if they occur after the expiration date of the reinsurance contract. In contrast, losses occurring reinsurance contracts cover all claims occurring during the period of the contract, regardless of the inception dates of the underlying policies. Any claims occurring after the expiration of the losses occurring contract are not covered.

Insurance and reinsurance premiums written are recorded at the inception of the policy. Reinsurance premiums are estimated based on information received from brokers, ceding companies and reinsureds, and any subsequent differences arising on such estimates are recorded in the periods in which they are determined.

Premiums written are earned on a pro-rated basis over the term of the related policy or contract. For direct insurance, and for facultative and losses occurring reinsurance contracts, the earnings period is generally the same as the term of the related contract or policy. For reinsurance contracts written on a risks attaching basis, the earnings period is based on the terms of the underlying contracts and policies and is generally assumed to be 24 months. The portion of the premiums written applicable to the unexpired terms of the underlying contracts and policies in force is recorded as unearned premiums.

Reinstatement premiums are recorded at the time a loss event occurs and coverage limits for the remaining life of the contract are reinstated under predefined contract terms. The accrual of reinstatement premiums is based on our estimate of losses and loss expenses, which reflects management's judgment, as described in Note 3(c), "*Reserve for losses and loss expenses*" below.

**(b) Policy acquisition costs**

Policy acquisition costs are costs that vary with, and are directly related to, the successful production of new and renewal business, and consist principally of commissions and brokerage expenses. Acquisition costs are shown net of commissions earned on reinsurance ceded. However, if the sum of a contract's expected losses and loss expenses and deferred acquisition costs exceeds related unearned premiums, a premium deficiency is determined to exist. In this event, deferred acquisition costs are immediately expensed to the extent necessary to eliminate the premium deficiency. If the premium deficiency exceeds deferred acquisition costs then a liability is accrued for the excess deficiency. There were no significant premium deficiency adjustments recognized during the periods presented herein.

Policy acquisition costs also include profit commissions, which are recognized on a basis consistent with our estimate of losses and loss expenses.

**(c) Reserve for losses and loss expenses**

The reserve for losses and loss expenses includes reserves for unpaid reported losses ("case reserves") and for losses incurred but not reported ("IBNR"). Case reserves are established by management based on reports from brokers, ceding companies and insureds and represents the unpaid portion of the estimated ultimate cost of events or conditions that have been reported to, or specifically identified by, the Company. IBNR reserves are established by management based on actuarially determined estimates of ultimate losses and loss expenses. Inherent in the estimate of ultimate losses and loss expenses are expected trends in claim severity and frequency and other factors which may vary significantly as claims are settled.

The period of time from the occurrence of a loss to the reporting of a loss to the Company and to the settlement of the Company's liability may be several months or years. During this period, additional facts and trends may be revealed. Accordingly, losses and loss expenses ultimately paid may differ materially from the amounts recorded in the Consolidated Financial Statements. These estimates are reviewed regularly and, as experience develops and new information becomes known, the reserves are adjusted as necessary. These adjustments sometimes lead to an increase or decrease in ultimate losses, and at other times lead to a reallocation between IBNR and specific case reserves. Adjustments to ultimate loss estimates, if any, are recorded in earnings in the period in which they become known. Prior period development arises from changes to these estimates recognized in the current year that relate to losses and loss expenses that were incurred in previous calendar years.

Although there is normally a lag in receiving reinsurance data from cedants, the Company currently has adequate procedures in place regarding the timeliness related to the processing of assumed reinsurance information and there is no significant backlog. The Company actively manages its relationships with brokers and clients and considers existing disputes with counterparties to be in the normal course of business.

**(d) Reinsurance**

The Company enters into reinsurance and retrocession agreements in order to mitigate its accumulation of loss, reduce its liability on individual risks, enable it to underwrite policies with higher limits and increase its aggregate capacity. Ceded reinsurance premiums are accounted for on bases consistent with those used in accounting for the underlying premiums assumed. Prepaid reinsurance premiums represent the portion of premiums ceded applicable to the unexpired term of policies in force.

Loss reserves recoverable on unpaid losses represent amounts that will be collectible from reinsurers once the losses are paid. Reinsurance recoverable on paid losses represents amounts currently due from reinsurers. The recognition of reinsurance recoverable requires two key judgments. In determining the Company's ceded IBNR, the first judgment involves the estimation of the amount of gross IBNR to be ceded to reinsurers. Ceded IBNR is developed as part of the Company's loss reserving process and consequently, its estimation is subject to risks and uncertainties similar to the estimation of gross IBNR.

**(e) Investments**

The Company classifies its fixed maturity and short-term investments as trading and accounts for its other investments in accordance with ASC Topic 825 *"Financial Instruments."* As such, all investments are carried at fair value with interest and dividend income and realized and unrealized gains and losses included in net income.

All investment transactions are recorded on a first-in-first-out basis and realized gains and losses on the sale of investments are determined on the basis of amortized cost (or cost). Interest on fixed maturity securities is recorded in net investment income when earned and includes amortization of premium or accretion of discount.

For mortgage-backed securities, and any other holdings which carry the risk of prepayment, prepayment assumptions are evaluated and revised as necessary. Any adjustments required due to the resultant change in effective yields and maturities are recognized retrospectively. Prepayment fees or call premiums that are only payable to the Company when a security is called prior to its maturity are earned when received and reflected in net investment income.

Short-term investments primarily comprise investments with a remaining maturity of less than one year at time of purchase and money market funds held at the Company's investment managers. Certain short-term investments relate to funds held in trust in support of collateralized reinsurance transactions.

Restricted cash primarily relates to funds held in trust in support of collateralized reinsurance transactions.

The fair value of other investments is generally recorded on the basis of the net asset valuation criteria established by the managers of the investments, normally based upon the governing documents of such investments. In addition, due to a lag in reporting, some of the fund managers, fund administrators, or both, are unable to provide final fund valuations as of the Company's reporting date. In these circumstances, the Company estimates the fair value of these funds by starting with the prior month's or prior quarter's fund valuation, adjusting these valuations for capital calls, redemptions or distributions and the impact of changes in foreign currency exchange rates, and then estimating the return for the current period. In circumstances in which the Company estimates the return for the current period, it uses all credible information available. This includes utilizing preliminary estimates reported by its fund managers, obtaining the valuation of underlying portfolio investments where such underlying investments are publicly traded and therefore have a readily observable price, using information that is available to the Company with respect to the underlying investments, reviewing various indices for similar investments or asset classes, as well as estimating returns based on the results of similar types of investments for which the Company has reported results, or other valuation methods, as necessary. Actual final fund valuations may differ, perhaps materially so, from the Company's estimates and these differences are recorded in the period they become known as a change in estimate.

Investments in which the Company has significant influence over the operating and financial policies of the investee are accounted for under the equity method of accounting. Under this method, the Company records its proportionate share of income or loss from such investments in its results for the period.

**(f) Fair value of financial instruments**

Fair value is defined as the price received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date reflecting the highest and best use valuation concepts. ASC Topic 820 "*Fair Value Measurement and Disclosure*" provides a framework for measuring fair value by creating a hierarchy of fair value measurements that distinguishes market data between observable independent market inputs and unobservable market assumptions by the reporting entity. The guidance further expands disclosures about such fair value measurements. The guidance applies broadly to most existing accounting pronouncements that require or permit fair value measurements (including both financial and non-financial assets and liabilities) but does not require any new fair value measurements. The Company has adopted all authoritative guidance in effect as of the balance sheet date regarding certain market conditions that allow for fair value measurements that incorporate unobservable inputs where active market transaction based measurements are unavailable.

**(g) Derivative instruments**

The Company enters into various derivative instruments in the form of foreign currency forward exchange contracts and interest rate swap contracts. These derivative instruments are used to manage exposures to currency and interest rate risks and to enhance the efficiency of the Company's investment portfolio. All of the Company's outstanding derivative financial instruments are recognized in the Consolidated Balance Sheets at their fair values. The effect on earnings from recognizing the fair values of these derivative financial instruments depends on their intended use, their hedge designation, and their effectiveness in offsetting changes in the fair values of the exposures they are hedging.

To qualify for hedge accounting treatment, a derivative must be highly effective in mitigating the changes in the fair value or cash flows of the hedged item. The Company formally documents all relationships between designated hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The documentation process includes linking derivatives to specific assets or liabilities on the balance sheet, and assessing, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting the designated changes of the hedged items. The Company currently applies the long haul method when assessing a hedge's effectiveness.

The Company discontinues hedge accounting prospectively when it is determined that the derivative is no longer highly effective in offsetting the designated changes of the hedged item, the derivative is de-designated as a hedging instrument, or the derivative expires or is sold, terminated or exercised. When hedge accounting is discontinued because the Company becomes aware that it is not probable that the forecasted transaction will occur, the derivative continues to be carried on the balance sheet at its fair value, and gains and losses that were included as part of accumulated other comprehensive income are reclassified and recognized immediately in earnings.

*Derivatives not designated as hedging instruments*

Changes in the fair values of derivative instruments that are not designated as hedges are reported currently in earnings. Refer to Note 10(a), *"Derivatives not designated as hedging instruments,"* for further details.

*Cash Flow Hedges*

Cash flow hedges are derivative instruments used to reduce or eliminate adverse fluctuations in cash flows of anticipated or forecasted transactions. Changes in their fair values are reported in equity as a component of accumulated other comprehensive income. Amounts in accumulated other comprehensive income are reclassified to earnings when the related hedged items affect earnings or the anticipated transactions are no longer probable. Refer to Note 10(b), *"Derivatives designated as cash flow hedges,"* for further details.

**(h) Cash and cash equivalents**

The Company considers time deposits and money market funds with an original maturity of one month or less as equivalent to cash.

**(i) Foreign exchange**

The U.S. dollar is the functional currency of the Company and its subsidiaries. For these companies, monetary assets and liabilities denominated in foreign currencies are revalued at the exchange rates in effect at the balance sheet date and revenues and expenses denominated in foreign currencies are translated at the prevailing exchange rate on the transaction date with the resulting foreign exchange gains and losses included in earnings. Non-monetary assets and liabilities denominated in foreign currencies are revalued at the exchange rate in effect at the time of the underlying transaction.

**(j) Stock plans**

Validus Holdings accounts for its stock plans in accordance with the ASC Topic 718 *"Compensation - Stock Compensation."* Accordingly, Validus Holdings recognizes the compensation expense for stock option grants, restricted share grants and performance share awards based on the fair value of the award on the date of grant over the requisite service period, and allocates the expense to its subsidiaries, including the Company, based on the location of employees.

For the years presented, the Company assumed a forfeiture rate of 5.0%. The Company's forfeiture assumptions serve to reduce the unamortized grant date fair value of outstanding restricted shares as well as the associated restricted shares expense. As restricted shares are actually forfeited, the number outstanding is reduced and the expenses relating to the unvested restricted shares are reversed. True-up adjustments are made as the restricted shares approach the vesting period.

**(k) Income taxes and uncertain tax provisions**

Deferred tax assets and liabilities are recorded in accordance with ASC Topic 740 *"Income Taxes."* Consistent with ASC 740, the Company records deferred income taxes which reflect operating losses and tax credits carried forward and the tax effect of the temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases.

The Company and its Bermuda domiciled subsidiaries are not subject to any income, withholding or capital gains taxes under current Bermuda law. The Company has operating subsidiaries in various other jurisdictions around the world, including but not limited to the U.S., Luxembourg, Switzerland and Canada that are subject to relevant taxes in those jurisdictions.

The Company recognizes the tax benefits of uncertain tax positions only where the position is more likely than not to be sustained upon examination by tax authorities based upon the technical merits of the position. Based on the more-likely-than-not recognition threshold, we must presume that the tax position will be subject to examination by a taxing authority with full knowledge of all relevant information. If the recognition threshold is met, then the tax position is measured at the largest amount of benefit that is more than 50% likely of being realized upon ultimate settlement. The Company classifies all interest and penalties related to uncertain tax positions in income tax expenses.

**(l) Business combinations, goodwill and intangible assets**

The Company accounts for business combinations in accordance with ASC Topic 805 *"Business Combinations"* and goodwill and intangible assets that arise from business combinations in accordance with ASC Topic 350 *"Intangibles – Goodwill and Other."*

A purchase price paid that is in excess of the fair value of the net assets acquired ("goodwill") arising from a business combination is recorded as an asset, and is not amortized. Intangible assets with a finite life are amortized over the estimated useful life of the assets, whereas intangible assets with an indefinite useful life are not amortized.

Goodwill and intangible assets are assessed for impairment on an annual basis or more frequently if events or changes in circumstances indicate that it is more likely than not that an impairment exists. Such events or circumstances may include an economic downturn in a geographic market or change in the assessment of future operations. In performing this assessment, the Company may first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the quantitative goodwill impairment test. Similarly, the Company may first assess qualitative factors to determine whether it is more likely than not that an other intangible asset is impaired as a basis for determining whether it is necessary to perform the quantitative impairment test. The factors assessed in making this determination included the overall insurance industry outlook, business strategy, premium rates, earnings sustainability, market capitalization and the regulatory and political environment.

If goodwill or intangible assets are impaired, they are written down to their fair value with a corresponding expense reflected in the Consolidated Statements of Income and Comprehensive Income.

**(m) Variable interest entities**

The Company determines whether it has relationships with entities defined as VIEs in accordance with ASC Topic 810 *"Consolidation."* A VIE is consolidated by the variable interest holder that is determined to be the primary beneficiary.

An entity in which the Company holds a variable interest is a VIE if any of the following conditions exist: (a) the total equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support, (b) as a group, the holders of equity investment at risk lack either the direct or indirect ability through voting rights or similar rights to make decisions about an entity's activities that most significantly impact the entity's economic performance or the obligation to absorb the expected losses or right to receive the expected residual returns, or (c) the voting rights of some investors are disproportionate to their obligation to absorb the expected losses of the entity, their rights to receive the expected residual returns of the entity, or both and substantially all of the entity's activities either involve or are conducted on behalf of an investor with disproportionately few voting rights.

The primary beneficiary is defined as the variable interest holder that is determined to have the controlling financial interest as a result of having both (a) the power to direct the activities of a VIE that most significantly impact the economic performance of the VIE and (b) the obligation to absorb losses or right to receive benefits from the VIE that could potentially be significant to the VIE. At inception of the VIE, as well as following an event that requires reassessment, the Company determines whether it is the primary beneficiary based on the facts and circumstances surrounding each entity.

**4. Recent accounting pronouncements**

**(a) Accounting Standards Adopted in 2017**

In May 2015, the FASB issued Accounting Standards Update ("ASU") 2015-09, *"Financial Services - Insurance (Topic 944) - Disclosures about Short-Duration Contracts."* The amendments in this ASU enhance disclosures relating to reserves for losses and loss expenses by requiring the following: (1) net incurred and paid claims development information by accident year; (2) a reconciliation of incurred and paid claims development information to the aggregate carrying amount of the reserve for losses and loss expenses; (3) for each accident year presented, total IBNR plus expected development on case reserves included in the reserve for losses and loss expenses, accompanied by a description of reserving methodologies and any changes thereto; (4) for each accident year presented, quantitative information about claim frequency (unless impracticable) accompanied by a qualitative description of methodologies used for determining claim frequency information and any changes thereto; and (5) the average annual percentage payout of incurred claims by age for the same number of accident years presented. The amendments in this ASU became effective for the Company on January 1, 2017 and the required disclosures have been included in Note 12, *"Reserves for Losses and Loss Expenses."*

In March 2016, the FASB issued ASU 2016-07, *"Investments - Equity Method and Joint Ventures (Topic 323) - Simplifying the Transition to the Equity Method of Accounting."* The amendments in this ASU eliminate the requirement to retroactively adopt the equity method of accounting when an investment becomes qualified for the equity method of accounting as a result of an increase in the level of ownership interest or degree of influence. The amendments in this ASU became effective for the Company on January 1, 2017. Adoption of this guidance did not have a material impact on the Company's Consolidated Financial Statements.

In March 2016, the FASB issued ASU 2016-09, *"Compensation - Stock Compensation (Topic 718) - Improvements to Employee Share-Based Payment Accounting."* The amendments in this ASU simplify 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. The amendments in this ASU are effective for annual periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. During the first quarter of 2017, the Company early adopted and implemented this guidance utilizing the full retrospective approach for all periods presented in the Company's Consolidated Financial Statements. Adoption of this guidance did not have a material impact on the Company's Consolidated Financial Statements.

In October 2016, the FASB issued ASU 2016-17, *"Consolidation (Topic 810) - Interests Held Through Related Parties That Are Under Common Control."* The amendments in this ASU do not change the characteristics of a primary beneficiary in current U.S. GAAP. Rather, the ASU requires that a reporting entity, in determining whether it satisfies the second characteristic of a primary beneficiary, include all of its direct variable interests in a VIE and, on a proportionate basis, its indirect variable interests in a VIE held through related parties, including related parties that are under common control with the reporting entity. The amendments in this ASU became effective for the Company on January 1, 2017. Adoption of this guidance did not have a material impact on the Company's Consolidated Financial Statements.

In November 2016, the FASB issued ASU 2016-18, *"Statement of Cash Flows (Topic 320) - Restricted Cash."* This ASU is directed at reducing diversity that exists in the classification and presentation of changes in restricted cash on the statement of cash flows. The ASU is effective for the Company for fiscal periods beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. During the fourth quarter of 2017, the Company early adopted and implemented this guidance utilizing the full retrospective approach for all periods presented in the Company's Consolidated Financial Statements.

As a result of the adoption of ASU 2016-18, the Company's Consolidated Statements of Cash Flows now explain the change during the period in the total of cash, cash equivalents, and restricted cash. Therefore, restricted cash is now included with cash and cash equivalents in the reconciliation the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. Prior to adoption, changes in restricted cash had been presented as a cash flow provided by (used in) investing activities. Consequently, the Consolidated Statements of Cash Flows for the year ended December 31, 2016 includes a revision to increase net cash used in investing activities by $15,000.

In August 2017, the FASB issued ASU 2017-12, *"Derivatives and Hedging (Topic 815)."* This ASU is directed at targeted improvements to accounting for hedging activities. This ASU is effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early adoption is permitted, including adoption in an interim period. During the fourth quarter of 2017, the Company early adopted and implemented this guidance with the effect of the adoption reflected as of January 1, 2017 in these Consolidated Financial Statements. Adoption of this guidance did not have a material impact on the Company's Consolidated Financial Statements.

**(b) Recently Issued Accounting Standards Not Yet Adopted**

In March 2017, the FASB issued ASU 2017-08, *"Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20)."* The amendments in this ASU shorten the amortization period for certain debt securities held at a premium. Specifically, the amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. The amendments in this ASU are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early adoption is permitted, including adoption in an interim period. The Company has evaluated the impact of this guidance and it will not have a material impact on the Company's Consolidated Financial Statements. The Company plans to early adopt this guidance on January 1, 2019.

In May 2017, the FASB issued ASU 2017-09, *"Compensation - Stock Compensation (Topic 718)."* This ASU is directed at reducing diversity in practice when applying the accounting guidance to a change in the terms or conditions of a share-based payment award. The ASU is effective for fiscal period beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. The Company has evaluated the impact of this guidance and it will not have a material impact on the Company's Consolidated Financial Statements. The Company plans to adopt this guidance on January 1, 2018.

In February 2018, the FASB issued ASU 2018-02, *"Income Statement - Reporting Comprehensive Income (Topic 220)."* Current GAAP requires that deferred tax liabilities and assets be adjusted for the effect of a change in tax laws or rates with the effect included in net income. This guidance is applicable even in situations in which the related income tax effects on items in accumulated other comprehensive income were originally recognized in other comprehensive income (rather than in net income). The amendments in this update allow a reclassification from accumulated other comprehensive income to retained earnings for the tax effects of items within accumulated other comprehensive income (referred to as "stranded tax effects") resulting from the Tax Cuts and Jobs Act enacted by the U.S. on December 22, 2017 ("2017 Tax Act"). Consequently, the amendments eliminate the stranded tax effects resulting from the 2017 Tax Act. The amendments in this Update also require certain disclosures about stranded tax effects. This ASU is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. The Company has evaluated the impact of this guidance and has determined that it will not have a material impact on the Company's Consolidated Financial Statements. The Company intends to adopt this guidance on January 1, 2019.

**5. Business combinations**

***American International Group, Inc. ("AIG")***

On January 21, 2018, Validus Holdings entered into a definitive agreement and plan of merger with AIG. Refer to Note 23, *"Subsequent Events,"* for further details.

***CRS***

On May 1, 2017, Western World, a wholly–owned subsidiary of the Company, acquired all of the outstanding capital stock of CRS for an aggregate purchase price of $185,576 in cash. CRS is a primary crop insurance MGA based in Decatur, Illinois with 1,170 agents across 36 states. CRS does not have insurance licenses of its own, but acts solely as an MGA in that it can produce business for any properly licensed entity on a commission basis. Concurrent with closing of the transaction, Stratford, a wholly–owned subsidiary of Western World, was granted the required licenses to write crop insurance in the United States and executed several agreements to transfer the related agriculture book of business to Stratford.

The CRS acquisition was undertaken to expand the Company's presence in U.S. primary specialty lines.

On closing, the Company recorded intangible assets totaling $63,921 for distribution channels, trade name and technology. Distribution channels and trade name were estimated to have finite useful economic lives of ten years on acquisition and are being amortized on a straight line basis over such period. Technology was estimated to have a finite useful economic life of two years on acquisition and is being amortized on a straight line basis over such a period.

The purchase price was allocated to the acquired assets and liabilities of CRS based on estimated fair values on May 1, 2017, the date the transaction closed, as detailed below. The Company recognized goodwill of $30,943 primarily attributable to CRS' assembled workforce and synergies expected to result upon the integration of CRS and its related book of business into the Company's operations. The estimates of fair values for tangible assets acquired and liabilities assumed were determined by management based on various market and income analyses. The Company estimated the fair values of intangible assets acquired based on variations of the income and cost approaches. Significant judgment was required to arrive at these estimates of fair value and changes to assumptions used could have led to materially different results.

The purchase of CRS was a taxable transaction and as such, goodwill and intangibles recorded at closing will be deductible for income tax purposes. The Company has recognized and recorded a deferred tax asset of $6,443 which results from the excess of tax-deductible goodwill over book value goodwill as recognized in the purchase price allocation.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The fair value of net assets acquired, including GAAP adjustments, are summarized as follows:

| | | | | |
|---|---|---|---|---|
| **Total purchase price** | | | $ | **185,576** |
| **Assets acquired** | | | | |
| Cash and cash equivalents | $ | 1,653 | | |
| Premiums receivable | | 537,383 | | |
| Prepaid reinsurance premiums | | 227,157 | | |
| Other assets | | 184,216 | | |
| **Tangible assets acquired** | | | | 950,409 |
| Intangible asset - Distribution channels | $ | 52,898 | | |
| Intangible asset - Trade name | | 9,568 | | |
| Intangible asset - Technology | | 1,455 | | |
| **Intangible assets acquired** | | | | 63,921 |
| Deferred tax arising on Goodwill | | | | 6,443 |
| **Liabilities acquired** | | | | |
| Reinsurance balances payable | | 294,201 | | |
| Unearned premiums | | 406,649 | | |
| Net loss reserves | | 42,575 | | |
| Other liabilities | | 122,715 | | |
| **Liabilities acquired** | | | | 866,140 |
| **Excess purchase price (goodwill) at acquisition** | | | $ | **30,943** |
| Measurement period adjustments [(a)] | | | | 1,872 |
| **Excess purchase price (goodwill) at December 31, 2017** | | | $ | **32,815** |

(a) During the year ended December 31, 2017, the Company recorded tax related measurement period adjustments of $1,872.

The Company also incurred transaction expenses related to the CRS acquisition of $4,427. Transaction expenses included legal, financial advisory and audit related services.

For details on the intangible assets acquired, refer to Note 6, "*Goodwill and intangible assets.*"

Operating results of CRS have been included in the Consolidated Financial Statements from the May 1, 2017 acquisition date. The following selected unaudited information has been provided to present a summary of the results of CRS that have been included in the Consolidated Financial Statements for the year ended December 31, 2017:

| | | Year Ended December 31, 2017 |
|---|---|---|
| | | *Unaudited* |
| Total underwriting revenues | $ | 236,769 |
| Total underwriting deductions | $ | 183,637 |
| Underwriting income, before general and administrative expenses | $ | 53,132 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### 6. Goodwill and intangible assets

The following table presents a reconciliation of the beginning and ending goodwill and intangible assets for the years ended December 31, 2017 and 2016:

| | Year Ended December 31, 2017 | | | |
|---|---|---|---|---|
| | | Intangible Assets | | |
| | Goodwill | With a Finite Life | With an Indefinite Life | Total |
| Balance, beginning of year | $ 176,365 | $ 9,344 | $ 12,325 | $ 21,669 |
| Additions | 30,943 | 64,080 | — | 64,080 |
| Amortization | — | (6,183) | — | (6,183) |
| Measurement period adjustments | 1,872 | — | — | — |
| Balance, end of year | $ 209,180 | $ 67,241 | $ 12,325 | $ 79,566 |

| | Year Ended December 31, 2016 | | | |
|---|---|---|---|---|
| | | Intangible Assets | | |
| | Goodwill | With a Finite Life | With an Indefinite Life | Total |
| Balance, beginning of year | $ 176,365 | $ 10,849 | $ 12,325 | $ 23,174 |
| Amortization | — | (1,505) | — | (1,505) |
| Balance, end of year | $ 176,365 | $ 9,344 | $ 12,325 | $ 21,669 |

Goodwill relates to the Company's 2014 acquisition of Western World and 2017 acquisition of CRS.

Intangible assets with a finite life includes the distribution network, technology, trade name and customer relationships related to the Company's acquisitions of Western World and CRS. These assets are amortized on a straight-line basis over a period ranging from two to ten years. Amortization expense associated with these assets for the years ended December 31, 2017 and 2016 were $6,183 and $1,505, respectively.

Intangible assets with an indefinite life consist of U.S. state licenses that provide a legal right to transact business indefinitely which were acquired with the Company's acquisition of Western World.

The Company completed its qualitative and quantitative assessments of goodwill and intangible assets and concluded that there had been no impairment as at December 31, 2017 and 2016.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The gross carrying value, accumulated amortization and net carrying value of intangible assets by type as at December 31, 2017 and 2016 were as follows:

| | December 31, 2017 | | | December 31, 2016 | | |
|---|---|---|---|---|---|---|
| | Gross Carrying Value | Accumulated Amortization | Net Carrying Value | Gross Carrying Value | Accumulated Amortization | Net Carrying Value |
| **Intangible assets with a finite life** | | | | | | |
| Trade name and customer relationships | $ 21,320 | $ (8,505) | $ 12,815 | $ 11,753 | $ (7,291) | $ 4,462 |
| Distribution network | 57,549 | (5,038) | 52,511 | 4,651 | (1,047) | 3,604 |
| Technology | 3,938 | (2,023) | 1,915 | 2,323 | (1,045) | 1,278 |
| Total | $ 82,807 | $ (15,566) | $ 67,241 | $ 18,727 | $ (9,383) | $ 9,344 |
| **Intangible assets with an indefinite life** | | | | | | |
| State licenses | 12,325 | n/a | 12,325 | 12,325 | n/a | 12,325 |
| Total | $ 12,325 | n/a | $ 12,325 | $ 12,325 | n/a | $ 12,325 |

The estimated aggregate amortization expense for the Company's intangible assets with a finite life is as follows:

| | Estimated remaining amortization expense |
|---|---|
| 2018 | $ 8,512 |
| 2019 | 7,911 |
| 2020 | 7,319 |
| 2021 | 7,319 |
| 2022 | 7,306 |
| 2023 and thereafter | 28,874 |
| Total | $ 67,241 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### 7. Investments

The amortized cost (or cost) and fair value of the Company's investments as at December 31, 2017 and 2016 were as follows:

| | December 31, 2017 | | December 31, 2016 | |
|---|---|---|---|---|
| | Amortized Cost or Cost | Fair Value | Amortized Cost or Cost | Fair Value |
| U.S. government and government agency | $ 563,480 | $ 558,885 | $ 567,215 | $ 562,856 |
| Non-U.S. government and government agency | 154,909 | 153,635 | 119,515 | 118,744 |
| U.S. states, municipalities and political subdivisions | 196,755 | 196,726 | 266,388 | 266,484 |
| Agency residential mortgage-backed securities | 796,612 | 792,065 | 526,471 | 523,455 |
| Non-agency residential mortgage-backed securities | 31,971 | 31,938 | 14,309 | 14,085 |
| U.S. corporate | 1,325,028 | 1,326,402 | 1,297,190 | 1,293,078 |
| Non-U.S. corporate | 278,560 | 278,739 | 259,734 | 258,858 |
| Bank loans | 450,320 | 442,951 | 579,121 | 570,399 |
| Asset-backed securities | 608,622 | 609,118 | 491,987 | 490,638 |
| Commercial mortgage-backed securities | 313,217 | 310,891 | 331,955 | 329,568 |
| **Total fixed maturities** | 4,719,474 | 4,701,350 | 4,453,885 | 4,428,165 |
| **Short-term investments** | 165,720 | 165,720 | 117,562 | 117,558 |
| **Other investments** | | | | |
| Fund of hedge funds | — | — | 1,457 | 955 |
| Hedge funds | 6,955 | 15,774 | 11,292 | 17,381 |
| Private equity investments | 63,684 | 78,407 | 72,814 | 89,810 |
| Fixed income investment funds | 172,823 | 174,081 | 197,701 | 197,455 |
| Mutual funds | — | — | 2,925 | 5,368 |
| Equities | 57,148 | 76,896 | 57,148 | 90,154 |
| **Total other investments** | 300,610 | 345,158 | 343,337 | 401,123 |
| **Investments in investment affiliates** [(a)] | 61,944 | 100,137 | 84,840 | 100,431 |
| **Total investments** | $ 5,247,748 | $ 5,312,365 | $ 4,999,624 | $ 5,047,277 |

(a) The Company's investments in investment affiliates have been treated as equity method investments with the corresponding gains and losses recorded in income as *"Income (loss) from investment affiliates."*

(Expressed in thousands of U.S. dollars, except share and per share amounts)

**(a) Fixed maturity investments**

The following table sets forth certain information regarding Standard & Poor's credit quality ratings (or an equivalent rating with another recognized rating agency) of the Company's fixed maturity investments as at December 31, 2017 and 2016:

| | December 31, 2017 | | December 31, 2016 | |
|---|---|---|---|---|
| | Fair Value | % of Total | Fair Value | % of Total |
| AAA | $ 2,181,720 | 46.4% | $ 1,896,896 | 42.8% |
| AA | 325,034 | 6.9% | 383,974 | 8.7% |
| A | 868,955 | 18.5% | 804,459 | 18.2% |
| BBB | 739,062 | 15.7% | 642,740 | 14.5% |
| **Total investment-grade fixed maturities** | 4,114,771 | 87.5% | 3,728,069 | 84.2% |
| BB | 225,581 | 4.9% | 268,705 | 6.1% |
| B | 237,131 | 5.0% | 177,737 | 4.0% |
| CCC | 18,217 | 0.4% | 13,371 | 0.3% |
| NR | 105,650 | 2.2% | 240,283 | 5.4% |
| **Total non-investment grade fixed maturities** | 586,579 | 12.5% | 700,096 | 15.8% |
| **Total fixed maturities** | $ 4,701,350 | 100.0% | $ 4,428,165 | 100.0% |

The amortized cost and fair values for the Company's fixed maturity investments held at December 31, 2017 and 2016 are shown below by contractual maturity. Actual maturity may differ from contractual maturity due to prepayment rights associated with certain investments.

| | December 31, 2017 | | December 31, 2016 | |
|---|---|---|---|---|
| | Amortized Cost | Fair Value | Amortized Cost | Fair Value |
| Due in one year or less | $ 252,423 | $ 252,004 | $ 246,428 | $ 247,766 |
| Due after one year through five years | 1,909,721 | 1,894,156 | 2,275,658 | 2,261,056 |
| Due after five years through ten years | 554,035 | 553,668 | 391,901 | 388,727 |
| Due after ten years | 252,873 | 257,510 | 175,176 | 172,870 |
| | 2,969,052 | 2,957,338 | 3,089,163 | 3,070,419 |
| Asset-backed and mortgage-backed securities | 1,750,422 | 1,744,012 | 1,364,722 | 1,357,746 |
| **Total fixed maturities** | $ 4,719,474 | $ 4,701,350 | $ 4,453,885 | $ 4,428,165 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### (b) Other investments

The following tables set forth certain information regarding the Company's other investment portfolio as at December 31, 2017 and 2016:

| | December 31, 2017 | | | | |
|---|---|---|---|---|---|
| **Other investments** | **Fair Value** | **Investments with redemption restrictions** | **Investments without redemption restrictions** | **Redemption frequency [a]** | **Redemption notice period [a]** |
| Hedge funds | 15,774 | 15,774 | — | | |
| Private equity investments | 78,407 | 78,407 | — | | |
| Fixed income investment funds | 174,081 | 174,081 | — | | |
| Equities | 76,896 | — | 76,896 | Daily | Daily |
| **Total other investments** | $ 345,158 | $ 268,262 | $ 76,896 | | |

| | December 31, 2016 | | | | |
|---|---|---|---|---|---|
| **Other investments** | **Fair Value** | **Investments with redemption restrictions** | **Investments without redemption restrictions** | **Redemption frequency [a]** | **Redemption notice period [a]** |
| Fund of hedge funds | $ 955 | $ 955 | $ — | | |
| Hedge funds | 17,381 | 17,381 | — | | |
| Private equity investments | 89,810 | 89,810 | — | | |
| Fixed income investment funds | 197,455 | 197,455 | — | | |
| Mutual funds | 5,368 | — | 5,368 | Daily | Daily |
| Equities | 90,154 | — | 90,154 | Daily | Daily |
| **Total other investments** | $ 401,123 | $ 305,601 | $ 95,522 | | |

(a) The redemption frequency and notice periods only apply to investments without redemption restrictions.

Other investments include investments in shares of Validus Holdings held by the Company, as well as various funds and pooled investment schemes. These alternative investments employ various investment strategies primarily involving, but not limited to, investments in collateralized obligations, fixed income securities, private equities, distressed debt and equity securities. Certain debt-like investments totaling $130,123 (December 31, 2016: $184,749) are either rated or consist of underlying securities or instruments which carry credit ratings issued by nationally recognized statistical rating organizations. Other equity-like investments totaling $215,035 (December 31, 2016: $216,374) are unrated given the nature of their underlying assets, such as private equity investments, and as such do not carry credit ratings.

Certain securities included in other investments are subject to redemption restrictions. Distributions from these funds will be received as the underlying investments of the funds are liquidated. Currently, it is not known to the Company when these underlying assets will be sold by their investment managers; however, it is estimated that the majority of the underlying assets of the investments will liquidate over five to ten-year periods from inception of the funds. In addition, one of the fixed income investment funds with a fair value of $130,123 (December 31, 2016: $184,749), has various lock-up periods of approximately two years or less as at December 31, 2017 and may also impose a redemption gate. A lock-up period refers to the initial amount of time an investor is contractually required to remain invested before having the ability to redeem. Typically, the imposition of a gate delays a portion of the requested redemption, with the remaining portion settled in cash shortly after the redemption date.

The Company's maximum exposure to any of its other investments is limited to the invested amounts and any remaining capital commitments. Refer to Note 20, *"Commitments and contingencies,"* for further details. As at December 31, 2017, the Company does not have any plans to sell any of the other investments listed above.

**(c) Investments in investment affiliates**

Included in the Company's investment portfolio as at December 31, 2017 are investments in Aquiline Financial Services Fund II L.P. ("Aquiline II"), Aquiline Financial Services Fund III L.P. ("Aquiline III"), Aquiline Technology Growth Fund L.P. ("Aquiline Tech") and Aquiline Armour Co-Invest L.P. ("Aquiline Armour").

***Aquiline II***

On December 20, 2011, the Company entered into an Assignment and Assumption Agreement (the "Agreement") with Aquiline Capital Partners LLC, a Delaware limited liability company (the "Assignor") and Aquiline Capital Partners II GP (Offshore) Ltd., a Cayman Islands company limited by shares (the "Aquiline II General Partner") pursuant to which the Company has assumed 100% of the Assignor's interest in Aquiline Financial Services Fund II L.P. (the "Aquiline II Partnership") representing a total capital commitment of $50,000 (the "Aquiline II Commitment"), as a limited partner in the Partnership (the "Transferred Interest"). The Transferred Interest is governed by the terms of an Amended and Restated Exempted Limited Partnership Agreement of the Fund.

On October 2, 2014, the Company assumed an additional investment in the Aquiline II Partnership as part of the Western World acquisition representing a total capital commitment of $10,000. This interest is also governed by the terms of the Aquiline II Limited Partnership Agreement.

The Aquiline II Partnership is a VIE and the Company is not the primary beneficiary. The Company's investment in the Aquiline II Partnership has been treated as an equity method investment. The Aquiline II Partnership provides a quarterly capital account statement, with a three month delay in its valuation, which was used as the basis for calculating the Company's share of partnership income for the period.

In accordance with the terms of the Agreement, no limited partner has the right to withdraw from the Aquiline II Partnership or to withdraw any part of its capital account without prior consent from the Aquiline II General Partner. The Company's maximum exposure to the Aquiline II Partnership is limited to the amount invested and any remaining capital commitment. Refer to Note 20, *"Commitments and contingencies,"* for further details.

***Aquiline III***

On November 7, 2014, the Company, entered into a Subscription Agreement (the "Subscription Agreement") with Aquiline Capital Partners III GP (Offshore) Ltd., a Cayman Islands company limited by shares (the "Aquiline III General Partner") pursuant to which the Company committed and agreed to purchase limited partnership or other comparable limited liability equity interests (the "Limited Partnership Interests") in Aquiline Financial Services Fund III L.P., a Cayman Islands exempted limited partnership (the "Aquiline III Partnership"), and/or one or more Alternative Investment Vehicles and Intermediate Entities (together with the Aquiline III Partnership, the "Fund" or the "Entities") with a capital commitment (the "Aquiline III Commitment") in an amount equal to $100,000, as a limited partner in the Aquiline III Partnership. The Limited Partnership Interests are governed by the terms of an Amended and Restated Exempted Limited Partnership Agreement.

The Aquiline III Partnership is a VIE and the Company is not the primary beneficiary. Therefore, the Company's investment in the Aquiline III Partnership has been treated as an equity method investment. The Aquiline III Partnership provides a quarterly capital account statement, with a three month delay in its valuation, which was used as the basis for calculating the Company's share of partnership income for the period.

In accordance with the terms of the Agreement, no limited partner has the right to withdraw from the Aquiline III Partnership or to withdraw any part of its capital account without prior consent from the Aquiline III General Partner. The Company's maximum exposure to the Aquiline III Partnership is limited to the amount invested and any remaining capital commitment. Refer to Note 20, *"Commitments and contingencies,"* for further details.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

*Aquiline Tech*

On March 20, 2017, the Company entered into a Subscription Agreement with Aquiline Technology Growth GP Ltd, (the "Aquiline Tech General Partner") pursuant to which the Company committed and agreed to purchase limited partnership or other comparable limited liability equity interests (the "Limited Partnership Interests") in Aquiline Tech, a Cayman Islands exempted limited partnership (the "Aquiline Tech Partnership"), with a capital commitment in an amount equal to $20,000. The limited partnership interests are governed by the terms of an amended and restated exempted limited partnership agreement.

The Aquiline Tech Partnership is a VIE and the Company is not the primary beneficiary. Therefore, the Company's investment in the Aquiline Tech Partnership has been treated as an equity method investment. The Aquiline Tech Partnership provides a quarterly capital account statement, with a three month delay in its valuation, which was used as the basis for calculating the Company's share of partnership income for the period.

In accordance with the terms of the Agreement, no limited partner has the right to withdraw from the Aquiline Tech Partnership or to withdraw any part of its capital account without prior consent from the Aquiline Tech General Partner. The Company's maximum exposure to the Aquiline Tech Partnership is limited to the amount invested and any remaining capital commitment. Refer to Note 20, *"Commitments and contingencies,"* for further details.

*Aquiline Armour*

On December 22, 2017, the Company entered into a Subscription Agreement with Aquiline Co-Invest III GP Ltd., a Cayman Islands exempted company (the "Aquiline Armour General Partner") pursuant to which the Company committed and agreed to purchase limited partnership or other comparable limited liability equity interests in Aquiline Armour, a Cayman Islands exempted limited partnership (the "Aquiline Armour Partnership"), and/or one or more Alternative Investment Vehicles and Intermediate Entities (together with the Aquiline Armour Partnership, the "Fund" or the "Entities") with a capital commitment (the "Aquiline Armour Commitment") in an amount equal to $40,340 as a limited partner in the Aquiline Armour Partnership. As at December 31, 2017, no capital contributions had been made in relation to this commitment. The Limited Partnership Interests are governed by the terms of an Amended and Restated Exempted Limited Partnership Agreement dated as of December 22, 2017.

The Aquiline Armour Partnership is a VIE and the Company is not the primary beneficiary. Therefore, the Company's investment in the Aquiline Armour Partnership has been treated as an equity method investment. The Aquiline Armour Partnership provides a quarterly capital account statement, with a three month delay in its valuation, which was used as the basis for calculating the Company's share of partnership income for the period.

In accordance with the terms of the Agreement, no limited partner has the right to withdraw from the Aquiline Armour Partnership or to withdraw any part of its capital account without prior consent from the Aquiline Armour General Partner. The Company's maximum exposure to the Aquiline Armour Partnership is limited to the amount invested and any remaining capital commitment. Refer to Note 20, *"Commitments and contingencies,"* for further details.

The following table presents a reconciliation of the Company's beginning and ending investments in investment affiliates for the years ended December 31, 2017 and 2016:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Investment affiliates, beginning of year | $ 100,431 | $ 87,673 |
| Net capital (distributions) contributions | (22,304) | 14,841 |
| Income (loss) from investment affiliates | 22,010 | (2,083) |
| Investment affiliates, end of year | $ 100,137 | $ 100,431 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The following tables present the Company's investments in the partnerships as at December 31, 2017 and December 31, 2016:

| | December 31, 2017 | | | |
|---|---|---|---|---|
| | Investment at cost | Voting ownership % | Equity Ownership % | Carrying Value |
| Aquiline II | $ 33,349 | —% | 8.1% | $ 51,914 |
| Aquiline III | 24,737 | —% | 9.0% | 44,733 |
| Aquiline Tech | 3,858 | —% | 10.6% | 3,490 |
| Total investments in investment affiliates | $ 61,944 | | | $ 100,137 |

| | December 31, 2016 | | | |
|---|---|---|---|---|
| | Investment at cost | Voting ownership % | Equity Ownership % | Carrying Value |
| Aquiline II | $ 46,871 | —% | 8.1% | $ 61,999 |
| Aquiline III | 37,969 | —% | 9.0% | 38,432 |
| Total investments in investment affiliates | $ 84,840 | | | $ 100,431 |

**(d) Net investment income**

Net investment income was derived from the following sources:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Fixed maturities and short-term investments | $ 112,898 | $ 103,674 |
| Other investments | 27,630 | 26,595 |
| Cash and cash equivalents | 2,433 | 2,548 |
| Dividends from equities | 2,491 | 2,294 |
| Securities lending income | 25 | 55 |
| Total gross investment income | 145,477 | 135,166 |
| Investment expenses | (7,769) | (7,334) |
| **Total net investment income** | $ 137,708 | $ 127,832 |

Net investment income from other investments includes distributed and undistributed net income from certain fixed income investment funds.

**(e) Net realized and change in net unrealized gains (losses) on investments**

The following represents an analysis of net realized and change in net unrealized gains (losses) on investments:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Gross realized gains | $ 21,961 | $ 12,549 |
| Gross realized (losses) | (15,382) | (6,634) |
| Net realized gains on investments | 6,579 | 5,915 |
| Change in net unrealized (losses) gains on investments | (6,426) | 28,382 |
| **Total net realized and change in net unrealized gains on investments** | $ 153 | $ 34,297 |

**(f) Pledged investments**

As at December 31, 2017, the Company had $1,750,616 (December 31, 2016: $1,532,919) of cash and cash equivalents, short-term investments and fixed maturity investments that were pledged during the normal course of business. Of those, $1,734,975 were held in trust (December 31, 2016: $1,519,362). Pledged assets are generally for the benefit of the Company's cedants and policyholders and to facilitate the accreditation of the Company and its operating subsidiary, Validus Reinsurance (Switzerland) Ltd. ("Validus Re Swiss"), as alien (re)insurers by certain regulators.

In addition, the Company has pledged cash and investments as collateral under the Company's credit facilities in the amount of $576,864 (December 31, 2016: $422,152). For further details on the credit facilities, refer to Note 17 *"Debt and financing arrangements."*

**(g) Securities lending**

The Company participates in a securities lending program whereby certain securities from its portfolio are loaned to third parties for short periods of time through a lending agent. The Company retains all economic interest in the securities it lends and receives a fee from the borrower for the temporary use of the securities. Collateral in the form of cash, government securities and letters of credit is required at a rate of 102% of the market value of the loaned securities and is held by a third party.

**8. Fair value measurements**

**(a) Classification within the fair value hierarchy**

Fair value is defined as the price to sell an asset or transfer a liability in an orderly transaction between market participants. Under U.S. GAAP, a company must determine the appropriate level in the fair value hierarchy for each fair value measurement. The fair value hierarchy prioritizes the inputs, which refer broadly to assumptions market participants would use in pricing an asset or liability, into three levels. It gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The level in the fair value hierarchy within which a fair value measurement in its entirety falls is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

The three levels of the fair value hierarchy are described below:

Level 1 - Fair values are measured based on unadjusted quoted prices in active markets for identical assets or liabilities that we have the ability to access.

Level 2 - Fair values are measured based on quoted prices in active markets for similar assets or liabilities, quoted prices for identical assets or liabilities in inactive markets, or for which significant inputs are observable (e.g., interest rates, yield curves, prepayment speeds, default rates, loss severities, etc.) or can be corroborated by observable market data.

Level 3 - Fair values are measured based on unobservable inputs that reflect the Company's own judgments about assumptions where there is little, if any, market activity for that asset or liability that market participants might use.

The availability of observable inputs can vary from financial instrument to financial instrument and is affected by a wide variety of factors including, for example, the type of financial instrument, whether the financial instrument is new and not yet established in the marketplace, and other characteristics particular to the instrument. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires significantly more judgment.

Accordingly, the degree of judgment exercised by management in determining fair value is greatest for instruments categorized in Level 3. In periods of market dislocation, the observability of prices and inputs may be reduced for many instruments. This may lead the Company to change the selection of the valuation technique (for example, from market to cash flow approach) or to use multiple valuation techniques to estimate the fair value of a financial instrument. These circumstances could cause an instrument to be reclassified between levels within the fair value hierarchy.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

At December 31, 2017, the Company's investments were allocated between Levels 1, 2 and 3 as follows:

| | Level 1 | Level 2 | Level 3 | Fair value based on NAV practical expedient [(a)] | Total |
|---|---|---|---|---|---|
| U.S. government and government agency | $ — | $ 558,885 | $ — | $ — | $ 558,885 |
| Non-U.S. government and government agency | — | 153,635 | — | — | 153,635 |
| U.S. states, municipalities and political subdivisions | — | 196,726 | — | — | 196,726 |
| Agency residential mortgage-backed securities | — | 792,065 | — | — | 792,065 |
| Non-agency residential mortgage-backed securities | — | 31,938 | — | — | 31,938 |
| U.S. corporate | — | 1,326,402 | — | — | 1,326,402 |
| Non-U.S. corporate | — | 278,739 | — | — | 278,739 |
| Bank loans | — | 232,886 | 210,065 | — | 442,951 |
| Asset-backed securities | — | 505,305 | 103,813 | — | 609,118 |
| Commercial mortgage-backed securities | — | 310,891 | — | — | 310,891 |
| **Total fixed maturities** | — | 4,387,472 | 313,878 | — | 4,701,350 |
| **Short-term investments** | 134,562 | 31,158 | — | — | 165,720 |
| **Other investments** | | | | | |
| Fund of hedge funds | — | — | — | — | — |
| Hedge funds | — | — | — | 15,774 | 15,774 |
| Private equity investments | — | — | — | 78,407 | 78,407 |
| Fixed income investment funds | — | 13,351 | 17,404 | 143,326 | 174,081 |
| Mutual funds | — | — | — | — | — |
| Equities | 76,896 | — | — | — | 76,896 |
| **Total other investments** | 76,896 | 13,351 | 17,404 | 237,507 | 345,158 |
| **Investment in investment affiliates [(b)]** | — | — | — | — | 100,137 |
| **Total investments** | $ 211,458 | $ 4,431,981 | $ 331,282 | $ 237,507 | $ 5,312,365 |

(a) In accordance with ASC Topic 820 *"Fair Value Measurements,"* investments measured at fair value using the net asset value ("NAV") per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy.

(b) In accordance with ASC Topic 825 *"Financial Instruments,"* the Company's investments in investment affiliates have not been classified in the fair value hierarchy.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

At December 31, 2016, the Company's investments were allocated between Levels 1, 2 and 3 as follows:

| | Level 1 | Level 2 | Level 3 | Fair value based on NAV practical expedient [a] | Total |
|---|---|---|---|---|---|
| U.S. government and government agency | $ — | $ 562,856 | $ — | $ — | $ 562,856 |
| Non-U.S. government and government agency | — | 118,744 | — | — | 118,744 |
| U.S. states, municipalities and political subdivisions | — | 266,484 | — | — | 266,484 |
| Agency residential mortgage-backed securities | — | 523,455 | — | — | 523,455 |
| Non-agency residential mortgage-backed securities | — | 14,085 | — | — | 14,085 |
| U.S. corporate | — | 1,293,078 | — | — | 1,293,078 |
| Non-U.S. corporate | — | 258,858 | — | — | 258,858 |
| Bank loans | — | 323,903 | 246,496 | — | 570,399 |
| Asset-backed securities | — | 466,707 | 23,931 | — | 490,638 |
| Commercial mortgage-backed securities | — | 329,568 | — | — | 329,568 |
| **Total fixed maturities** | — | 4,157,738 | 270,427 | — | 4,428,165 |
| **Short-term investments** | 105,040 | 12,518 | — | — | 117,558 |
| **Other investments** | | | | | |
| Fund of hedge funds | — | — | — | 955 | 955 |
| Hedge funds | — | — | — | 17,381 | 17,381 |
| Private equity investments | — | — | — | 89,810 | 89,810 |
| Fixed income investment funds | — | — | 12,168 | 185,287 | 197,455 |
| Mutual funds | — | 5,368 | — | — | 5,368 |
| Equities | 90,154 | — | — | — | 90,154 |
| **Total other investments** | 90,154 | 5,368 | 12,168 | 293,433 | 401,123 |
| **Investment in investment affiliates** [a] | — | — | — | — | 100,431 |
| **Total investments** | $ 195,194 | $ 4,175,624 | $ 282,595 | $ 293,433 | $ 5,047,277 |

(a) In accordance with ASC Topic 820 *"Fair Value Measurements,"* investments measured at fair value using the net asset value ("NAV") per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy.

(b) In accordance with ASC Topic 825 *"Financial Instruments,"* the Company's investments in investment affiliates have not been classified in the fair value hierarchy.

At December 31, 2017, Level 3 investments totaled $331,282 (December 31, 2016: $282,595), representing 6.2% (December 31, 2016: 5.6%) of total investments.

**(b) Valuation techniques**

There have been no material changes in the Company's valuation techniques during the period, or periods, represented by these Consolidated Financial Statements. The following methods and assumptions were used in estimating the fair value of each class of financial instrument recorded in the Consolidated Balance Sheets.

***Fixed maturity investments***

In general, valuation of the Company's fixed maturity investment portfolio is provided by pricing services, such as index providers and pricing vendors, as well as broker quotations. The pricing vendors provide valuations for a high volume of liquid securities that are actively traded. For securities that do not trade on an exchange, the pricing services generally utilize market data and other observable inputs in matrix pricing models to determine month end prices. Prices are generally verified using third party data. Index providers generally utilize centralized trade reporting networks, available market makers and statistical techniques.

In general, broker-dealers value securities through their trading desks based on observable inputs. The methodologies include mapping securities based on trade data, bids or offers, observed spreads, and performance on newly issued securities. Broker-dealers also determine valuations by observing secondary trading of similar securities. Prices obtained from broker quotations are considered non-binding, however they are based on observable inputs and by observing secondary trading of similar securities obtained from active, non-distressed markets. The Company considers these Level 2 inputs as they are corroborated with other market observable inputs. The techniques generally used to determine the fair value of the Company's fixed maturity investments are detailed below by asset class.

*U.S. government and government agency*

U.S. government and government agency securities consist primarily of debt securities issued by the U.S. Treasury and mortgage pass-through agencies such as the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation and the Government National Mortgage Association. Fixed maturity investments included in U.S. government and government agency securities are primarily priced by pricing services. When evaluating these securities, the pricing services gather information from market sources and integrate other observations from markets and sector news. Evaluations are updated by obtaining broker dealer quotes and other market information including actual trade volumes, when available. The fair value of each security is individually computed using analytical models which incorporate option adjusted spreads and other daily interest rate data. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

*Non-U.S. government and government agency*

Non-U.S. government and government agency securities consist of debt securities issued by non-U.S. governments and their agencies along with supranational organizations (also known as sovereign debt securities). Securities held in these sectors are primarily priced by pricing services who employ proprietary discounted cash flow models to value the securities. Key quantitative inputs for these models are daily observed benchmark curves for treasury, swap and high issuance credits. The pricing services then apply a credit spread for each security which is developed by in-depth and real time market analysis. For securities in which trade volume is low, the pricing services utilize data from more frequently traded securities with similar attributes. These models may also be supplemented by daily market and credit research for international markets. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

*U.S. states, municipalities and political subdivisions*

The Company's U.S. states, municipalities and political subdivisions portfolio contains debt securities issued by U.S. domiciled state and municipal entities. These securities are generally priced by independent pricing services using the techniques described for U.S. government and government agency securities described above. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

*Agency residential mortgage-backed securities*

The Company's agency residential mortgage-backed investments are primarily priced by pricing services using a mortgage pool specific model which utilizes daily inputs from the active to be announced market which is very liquid, as well as the U.S. treasury market. The model also utilizes additional information, such as the weighted average maturity, weighted average coupon and other available pool level data which is provided by the sponsoring agency. Valuations are also corroborated with daily active market quotes. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

*Non-agency residential mortgage-backed securities*

The Company's non-agency mortgage-backed investments include non-agency prime residential mortgage-backed fixed maturity investments. The Company has no fixed maturity investments classified as sub-prime held in its fixed maturity investments portfolio. Securities held in these sectors are primarily priced by pricing services using an option adjusted spread model or other relevant models, which principally utilize inputs including benchmark yields, available trade information or broker quotes, and issuer spreads. The pricing services also review collateral prepayment speeds, loss severity and delinquencies among other collateral performance indicators for the securities valuation, when applicable. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

*U.S. corporate*

U.S. corporate debt securities consist primarily of investment-grade debt of a wide variety of U.S. corporate issuers and industries. The Company's corporate fixed maturity investments are primarily priced by pricing services. When evaluating these securities, the pricing services gather information from market sources regarding the issuer of the security and obtain credit data, as well as other observations, from markets and sector news. Evaluations are updated by obtaining broker dealer quotes and other market information including actual trade volumes, when available. The pricing services also consider the specific terms and conditions of the securities, including any specific features which may influence risk. In certain instances, securities are individually evaluated using a spread which is added to the U.S. treasury curve or a security specific swap curve as appropriate. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

*Non-U.S. corporate*

Non-U.S. corporate debt securities consist primarily of investment-grade debt of a wide variety of non-U.S. corporate issuers and industries. The Company's non-U.S. corporate fixed maturity investments are primarily priced by pricing services. When evaluating these securities, the pricing services gather information from market sources regarding the issuer of the security and obtain credit data, as well as other observations, from markets and sector news. Evaluations are updated by obtaining broker dealer quotes and other market information including actual trade volumes, when available. The pricing services also consider the specific terms and conditions of the securities, including any specific features which may influence risk. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

*Bank loans*

The Company's bank loan investments consist primarily of below-investment-grade debt of a wide variety of corporate issuers and industries. The Company's bank loans are primarily priced by pricing services. When evaluating these securities, the pricing services gather information from market sources regarding the issuer of the security and obtain credit data, as well as other observations, from markets and sector news. Evaluations are updated by obtaining broker dealer quotes and other market information including actual trade volumes, when available. The pricing services also consider the specific terms and conditions of the securities, including any specific features which may influence risk. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

Also, included in the bank loan portfolio is a collection of loan participations held through an intermediary. A third party pricing service provides monthly valuation reports for each loan and participation using a combination of quotations from loan pricing services, leveraged loan indices or market price quotes obtained directly from the intermediary. Significant unobservable inputs used to price these securities include credit spreads and default rates; therefore, the fair value of these investments are classified as Level 3.

*Asset-backed securities*

Asset backed securities include mostly investment-grade debt securities backed by pools of loans with a variety of underlying collateral, including automobile loan receivables, student loans, credit card receivables, and collateralized loan obligations originated by a variety of financial institutions. Securities held in these sectors are primarily priced by pricing services. The pricing services apply dealer quotes and other available trade information such as bids and offers, prepayment speeds which may be adjusted for the underlying collateral or current price data, the U.S. treasury curve and swap curve as well as cash settlement. The pricing services determine the expected cash flows for each security held in this sector using historical prepayment and default projections for the underlying collateral and current market data. In addition, a spread is applied to the relevant benchmark and used to discount the cash flows noted above to determine the fair value of the securities held in this sector. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2. Where pricing is unavailable from pricing services, we obtain non-binding quotes from broker-dealers. This is generally the case when there is a low volume of trading activity and current transactions are not orderly. Broker-dealer quotes for which significant observable inputs are unable to be corroborated with market observable information are classified as Level 3.

*Commercial mortgage-backed securities*

Commercial mortgage backed securities are investment-grade debt primarily priced by pricing services. The pricing services apply dealer quotes and other available trade information such as bids and offers, prepayment speeds which may be adjusted for the underlying collateral or current price data, the U.S. treasury curve and swap curve as well as cash settlement. The pricing services determine the expected cash flows for each security held in this sector using historical prepayment and default projections for the underlying collateral and current market data. In addition, a spread is applied to the relevant benchmark and used to discount the cash flows noted above to determine the fair value of the securities held in this sector. As the significant inputs used to price these securities are observable, the fair value of these investments are classified as Level 2.

***Short term investments***

Short-term investments consist primarily of highly liquid securities, all with maturities of less than one year from the date of purchase. The fair value of the portfolio is generally determined using amortized cost which approximates fair value. As the highly liquid money market-type funds are actively traded, the fair value of these investments are classified as Level 1. To the extent that the remaining securities are not actively traded due to their approaching maturity, the fair value of these investments are classified as Level 2.

***Other investments***

*Fund of hedge funds*

During the year ended December 31, 2017, the Company's investment in a fund of hedge funds was liquidated. Prior to liquidation, the fund's administrator provided a monthly reported NAV with a three month delay in its valuation. The fund manager provided an estimate of the fund NAV at year end based on the estimated performance provided from the underlying funds. To determine the reasonableness of the estimated NAV, the Company compared the fund administrator's NAV to the fund manager's estimated NAV that incorporates relevant valuation sources. Prior to liquidation, the fair value of these investments were measured using the NAV practical expedient and therefore were not categorized within the fair value hierarchy.

*Hedge funds*

The hedge fund's administrator provides quarterly NAVs with a three month delay in valuation. The fair value of this investment is measured using the NAV practical expedient and therefore has not been categorized within the fair value hierarchy.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

*Private equity investments*

The private equity funds provide quarterly or semi-annual partnership capital statements with a three or six month delay which are used as a basis for valuation. These private equity investments vary in investment strategies and are not actively traded in any open markets. The fair value of these investments are measured using the NAV practical expedient and therefore have not been categorized within the fair value hierarchy.

*Fixed income investment funds*

The Company's investment funds classified as Level 2 consist of a pooled investment fund. The pooled investment is invested in fixed income securities with high credit ratings and is only open to Lloyd's Trust Fund participants. The fair value of units in the investment fund is based on the NAV of the fund and is traded on a daily basis.

Included in investment funds is a residual equity tranche of a structured credit fund valued using a dynamic yield that calculates an income accrual based on an underlying valuation model with a typical cash flow waterfall structure. Significant unobservable inputs used to price this fund include default rates and prepayment rates; therefore, the fair value of the investment fund is classified as Level 3.

The fair value of the Company's remaining investment funds is based on the NAV of the fund as reported by the independent fund administrator. The fund's administrators provide a monthly reported NAV with a one or three month delay in their valuation. The fair value of these investments are measured using the NAV practical expedient and therefore have not been categorized within the fair value hierarchy. None of these investments are probable of being sold at amounts different than their NAVs.

*Mutual funds*

During the year ended December 31, 2017, the Company's investment in a mutual fund was liquidated. Prior to liquidation, the mutual fund consisted of an investment fund which invested in various quoted investments. The fair value of units in the mutual fund was based on the NAV of the fund as reported by the fund manager. The mutual fund had daily liquidity which allowed us to redeem our holdings at the applicable NAV in the near term. As such, the Company had classified this investment as Level 2.

*Equities*

Equities represent shares of Validus Holdings held by the Company. The fair value of these shares are determined based on quoted market prices on the New York Stock Exchange and therefore have been classified as Level 1 at December 31, 2017.

**(c) Level 3 investments**

The following table presents a reconciliation of the beginning and ending balances for all investments measured at fair value on a recurring basis using Level 3 inputs during the years ended December 31, 2017 and 2016:

| | Year Ended December 31, 2017 | | | |
|---|---|---|---|---|
| | Bank Loans | Fixed Income Investment Funds | Asset Backed Securities | Total |
| Level 3 investments, beginning of year | $ 246,496 | $ 12,168 | $ 23,931 | $ 282,595 |
| Purchases | 84,354 | 5,236 | 78,997 | 168,587 |
| Sales | — | — | (195) | (195) |
| Settlements | (118,260) | — | — | (118,260) |
| Change in net unrealized (losses) gains | (2,525) | — | 1,080 | (1,445) |
| Level 3 investments, end of year | $ 210,065 | $ 17,404 | $ 103,813 | $ 331,282 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

| | Year Ended December 31, 2016 | | | |
|---|---|---|---|---|
| | Bank Loans | Fixed Income Investment Funds | Asset Backed Securities | Total |
| Level 3 investments, beginning of year | $ 232,337 | $ — | $ — | $ 232,337 |
| Purchases | 87,345 | 12,168 | 23,896 | 123,409 |
| Sales | (2,389) | — | — | (2,389) |
| Settlements | (69,496) | — | — | (69,496) |
| Change in net unrealized (losses) gains | (1,301) | — | 35 | (1,266) |
| Level 3 investments, end of year | $ 246,496 | $ 12,168 | $ 23,931 | $ 282,595 |

There were no transfers into or out of Level 3 during the years ended December 31, 2017 or 2016.

**(d) Financial instruments not carried at fair value**

ASC Topic 825 *"Financial Instruments"* is also applicable to disclosures of financial instruments not carried at fair value, except for certain financial instruments, including insurance contracts and investments in affiliates. The carrying values of cash and cash equivalents, restricted cash, accrued investment income, other assets, receivable for investments sold, balances due to/from affiliates, net payable for investments purchased and accounts payable and accrued expenses approximated their fair values at December 31, 2017, due to their respective short maturities. As these financial instruments are not actively traded, their respective fair values are classified within Level 2.

**9. Investments in operating affiliates and structured notes receivable from AlphaCat ILS fund**

**(a) Investments in operating affiliates**

*AlphaCat sidecars*

Beginning on May 25, 2011, the Company joined with other investors in capitalizing a series of reinsurance and investment entities, referred to as "sidecars," for the purpose of investing in collateralized reinsurance and retrocessional contracts. Certain of these sidecars deployed their capital through transactions entered into by AlphaCat Reinsurance Ltd. ("AlphaCat Re"). Each of these entities returns capital once the risk period expires and all losses have been paid out. The AlphaCat sidecars are VIEs and the Company is not the primary beneficiary. Therefore, the Company's investments in the sidecars have been treated as equity method investments. The Company's maximum exposure to any of the sidecars is the amount of capital invested at any given time and any remaining capital commitments. Refer to Note 20, *"Commitments and contingencies,"* for further details.

*AlphaCat ILS funds*

Beginning on December 17, 2012, the Company joined with other investors in capitalizing the AlphaCat ILS funds for the purpose of investing in instruments with returns linked to property catastrophe reinsurance, retrocession and insurance linked securities ("ILS") contracts. The AlphaCat ILS funds have varying risk profiles and are categorized by the maximum permitted portfolio expected loss of the fund. The maximum permitted portfolio expected loss represents the average annual loss over the set of simulation scenarios divided by the total limit. Lower risk ILS funds are defined as having a maximum permitted portfolio expected loss of less than 7%, whereas higher risk ILS funds have a maximum permitted portfolio expected loss of 7% or greater. The AlphaCat ILS funds primarily deploy their capital through transactions entered into by AlphaCat Re and AlphaCat Master Fund Ltd. The AlphaCat ILS funds are VIEs and the Company is not the primary beneficiary. Therefore, the Company's investments in the funds have been treated as equity method investments.

The Company's maximum exposure to any of the AlphaCat ILS funds is the amount of capital invested at any given time and any remaining capital commitments. Refer to Note 20, *"Commitments and contingencies,"* for further details.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

*BetaCat ILS funds*

The BetaCat ILS funds follow a passive buy-and-hold investment strategy, investing exclusively in catastrophe bonds (principal-at-risk variable rate notes and other event-linked securities, referred to collectively as "Cat Bonds") focused on property and casualty risks and issued under Rule 144A of the Securities Act of 1933, as amended. One of the funds is a VIE and the Company is not the primary beneficiary. Therefore, the Company's investment in this fund has been treated as equity method investment. The remaining fund is a VOE and is consolidated by the Company as it owns all of the voting equity interests. The Company's maximum exposure to any of of the BetaCat ILS funds is the amount of capital invested at any given time.

*PaCRe, Ltd.*

On April 2, 2012, the Company joined with other investors in capitalizing PaCRe, Ltd. ("PaCRe"), a Class 4 Bermuda reinsurer formed for the purpose of writing high excess property catastrophe reinsurance. During 2015, PaCRe's Class 4 license was surrendered and it was considered off-risk effective January 1, 2016. During 2016, PaCRe was liquidated. The Company's investment in PaCRe was treated as an equity method investment.

The following tables present a reconciliation of the beginning and ending investments in operating affiliates for the years ended December 31, 2017 and 2016:

| | Year Ended December 31, 2017 | | | | |
|---|---|---|---|---|---|
| | AlphaCat sidecars | AlphaCat ILS Funds - Lower Risk | AlphaCat ILS Funds - Higher Risk | BetaCat ILS Fund | Total |
| Balance, beginning of year | $ 9,111 | $ 180,782 | $ 67,872 | $ 51,772 | $ 309,537 |
| Purchase of shares | — | — | 15,000 | — | 15,000 |
| Redemption of shares / Distributions | (2,943) | (104,897) | (18,416) | (27,430) | (153,686) |
| Income (loss) from operating affiliates | 79 | (3,102) | (23,303) | 536 | (25,790) |
| Balance, end of year | $ 6,247 | $ 72,783 | $ 41,153 | $ 24,878 | $ 145,061 |

| | Year Ended December 31, 2016 | | | | | |
|---|---|---|---|---|---|---|
| | AlphaCat sidecars | AlphaCat ILS Funds - Lower Risk | AlphaCat ILS Funds - Higher Risk | BetaCat ILS Fund | PaCRe | Total |
| Balance, beginning of year | $ 37,116 | $ 151,881 | $ 73,008 | $ 61,749 | $ 392 | $ 324,146 |
| Purchase of shares | — | 20,000 | 16,136 | — | — | 36,136 |
| Redemption of shares / Distributions | (28,612) | — | (28,128) | (13,600) | (369) | (70,709) |
| Income (loss) from operating affiliates | 607 | 8,901 | 6,856 | 3,623 | (23) | 19,964 |
| Balance, end of year | $ 9,111 | $ 180,782 | $ 67,872 | $ 51,772 | $ — | $ 309,537 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The following table presents the Company's investments in operating affiliates as at December 31, 2017:

| | Cost | Voting ownership % | Equity ownership % | Carrying value |
|---|---|---|---|---|
| AlphaCat sidecars | $ 5,367 | (a) | (b) | $ 6,247 |
| AlphaCat ILS Funds - Lower Risk | 52,565 | n/a | (c) | 72,783 |
| AlphaCat ILS Funds - Higher Risk | 40,453 | n/a | (d) | 41,153 |
| BetaCat ILS Funds | 21,686 | 100.0% | 100.0% | 24,878 |
| Total | $ 120,071 | | | $ 145,061 |

(a) Voting ownership in the AlphaCat sidecars was 43.7%, 49.0%, 40.9%, 42.3% and 40.0% as at December 31, 2017.
(b) Equity ownership in the AlphaCat sidecars was 22.3%, 37.9%, 19.7%, 19.6% and 20.0% as at December 31, 2017.
(c) Equity ownership in the lower risk AlphaCat ILS funds was 7.4% and 9.5% as at December 31, 2017.
(d) Equity ownership in the higher risk AlphaCat ILS funds was 10.0% and 5.8% as at December 31, 2017.

The following table presents the Company's investments in operating affiliates as at December 31, 2016:

| | Cost | Voting ownership % | Equity ownership % | Carrying value |
|---|---|---|---|---|
| AlphaCat sidecars | $ 8,315 | (a) | (b) | $ 9,111 |
| AlphaCat ILS Funds - Lower Risk | 132,320 | n/a | (c) | 180,782 |
| AlphaCat ILS Funds - Higher Risk | 45,956 | n/a | (d) | 67,872 |
| BetaCat Funds | 46,390 | 100.0% | 100.0% | 51,772 |
| Total | $ 232,981 | | | $ 309,537 |

(a) Voting ownership in the AlphaCat sidecars was 43.7%, 49.0%, 40.9%, 42.3% and 40.0% as at December 31, 2016.
(b) Equity ownership in the AlphaCat sidecars was 22.3%, 37.9%, 19.7%, 19.6% and 20.0% as at December 31, 2016.
(c) Equity ownership in the lower risk AlphaCat ILS funds was 7.6%, 18.4% and 9.1% as at December 31, 2016.
(d) Equity ownership in the higher risk AlphaCat ILS funds was 14.3% and 8.6% as at December 31, 2016.

### (b) Structured notes receivable from AlphaCat ILS fund

During 2017 and 2016, one of the AlphaCat ILS funds ("the Fund") issued both common shares and structured notes to the Company in order to capitalize the Fund. The structured notes do not have a stated maturity date since repayment is dependent on the settlement and income or loss of the underlying transactions. The structured notes rank senior to the common shares of the Fund and earn an interest rate of 7.0% (2016: 8.0%) per annum, payable on a cumulative basis in arrears.

The following tables present a reconciliation of the beginning and ending structured notes receivable from the Fund as at December 31, 2017 and December 31, 2016:

| | Years Ended December 31, 2017 | 2016 |
|---|---|---|
| Structured notes receivable from the Fund, beginning of year | $ — | $ — |
| Issuance of structured notes receivable | 10,000 | 8,865 |
| Redemptions of structured notes receivable | — | (8,865) |
| Structured notes receivable from the Fund, end of year | $ 10,000 | $ — |

The income from the structured notes for the year ended December 31, 2017 was $641 (2016: $615).

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### 10. Derivative instruments

### (a) Derivatives not designated as hedging instruments

The following tables summarize information on the classification and amount of the fair value of derivatives not designated as hedging instruments within the Company's Consolidated Balance Sheets as at December 31, 2017 and 2016:

| Derivatives not designated as hedging instruments: | December 31, 2017 | | | December 31, 2016 | | |
|---|---|---|---|---|---|---|
| | Notional Exposure | Asset Derivative at Fair Value [(a)] | Liability Derivative at Fair Value [(a)] | Notional Exposure | Asset Derivative at Fair Value [(a)] | Liability Derivative at Fair Value [(a)] |
| Foreign currency forward contracts | $ 164,283 | $ 1,147 | $ 803 | $ 138,408 | $ 430 | $ 3,366 |

(a) Asset and liability derivatives are classified within other assets and accounts payable and accrued expenses, respectively, on the Consolidated Balance Sheets.

The foreign currency forward contracts are valued on the basis of standard industry valuation models. The inputs to these models are based on observable market inputs, and as such the fair values of these contracts are classified as Level 2.

The following table summarizes information on the classification and net impact on earnings, recognized in the Company's Consolidated Statements of Income and Comprehensive Income relating to derivatives that were not designated as hedging instruments during the years ended December 31, 2017 and 2016:

| Derivatives not designated as hedging instruments | Classification of gains (losses) recognized in earnings | Years Ended December 31, 2017 | 2016 |
|---|---|---|---|
| Foreign currency forward contracts | Foreign exchange losses | $ (5,232) | $ (3,986) |
| Foreign currency forward contracts | Other insurance related income and other income | $ (979) | $ 142 |
| Interest rate swap contracts [(a)] | Net realized gains on investments | $ — | $ 498 |

(a) Relates to net realized gains on two interest rate swap contracts which were entered into and terminated during the year ended December 31, 2016 to partially offset the impact of interest rate increases on the Company's fixed maturity investment portfolio.

### (b) Derivatives designated as cash flow hedges

During 2017 the Company designated certain foreign exchange contracts as cash flow hedges of anticipated foreign currency-denominated sales or purchases.

The following table summarizes information on the classification and amount of the fair value of derivatives designated as hedging instruments on the Consolidated Balance Sheets as at December 31, 2017:

| Derivatives designated as hedging instruments | December 31, 2017 Notional Exposure | Asset Derivative at Fair Value [(a)] | Liability Derivative at Fair Value [(a)] |
|---|---|---|---|
| Foreign currency forward contracts | $ 96,293 | $ 1,890 | $ — |

(a) Asset and liability derivatives are classified within funds withheld on the Consolidated Balance Sheets.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The foreign currency forward contracts are valued on the basis of Level 2 inputs.

The following table summarizes information on the classification and net impact on earnings, recognized in the Company's Consolidated Statements of Income and Comprehensive Income relating to derivatives that were designated as hedging instruments during the years ended December 31, 2017:

| | Year Ended December 31, | |
|---|---|---|
| **Foreign currency forward contracts** | **2017** | |
| Amount of effective portion recognized in other comprehensive income | $ | 1,890 |
| Amount of effective portion reclassified to other insurance related income and other income | $ | — |

### (c) Balance sheet offsetting

There was no balance sheet offsetting activity as at December 31, 2017 or 2016.

The Company does not provide collateral or financial instruments as security for foreign currency forward contracts. Our derivative instruments are generally traded under International Swaps and Derivatives Association master agreements, which establish terms that apply to all transactions. On a periodic basis, the amounts receivable from or payable to the counterparties are settled in cash.

The Company has not elected to settle multiple transactions with an individual counterparty on a net basis.

## 11. Premiums receivable and funds withheld

### (a) Premiums receivable

Premiums receivable are composed of premiums in the course of collection, net of commissions and brokerage, and premiums accrued but unbilled, net of commissions and brokerage. It is common practice in the (re)insurance industry for premiums to be paid on an installment basis, therefore significant amounts will be considered unbilled and will not become due until a future date, which is typically no later than expiration of the underlying coverage period. The following is a breakdown of the components of premiums receivable as at December 31, 2017 and 2016:

| | Year Ended December 31, 2017 | | | | | |
|---|---|---|---|---|---|---|
| | Premiums in course of collection | | Premiums accrued but unbilled | | Total | |
| Premiums receivable, beginning of year | $ | 74,881 | $ | 377,616 | $ | 452,497 |
| Change during year | | 126,370 | | 75,692 | | 202,062 |
| Premiums receivable, end of year | $ | 201,251 | $ | 453,308 | $ | 654,559 |

| | Year Ended December 31, 2016 | | | | | |
|---|---|---|---|---|---|---|
| | Premiums in course of collection | | Premiums accrued but unbilled | | Total | |
| Premiums receivable, beginning of year | $ | 63,725 | $ | 317,914 | $ | 381,639 |
| Change during year | | 11,156 | | 59,702 | | 70,858 |
| Premiums receivable, end of year | $ | 74,881 | $ | 377,616 | $ | 452,497 |

### (b) Funds withheld

The Company writes certain business on a funds withheld basis. Under these contractual arrangements, the Company's cedants withhold premiums due to the Company for the purpose of paying claims. The remaining net funds will be remitted to the Company after all policies have expired and all claims have been settled. Funds withheld as at December 31, 2017 were $1,440,804 (December 31, 2016: $1,502,558).

(Expressed in thousands of U.S. dollars, except share and per share amounts)

**12. Reserves for losses and loss expenses**

The following table summarizes the Company's reserve for losses and loss expenses as at December 31, 2017 and 2016:

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| Case reserves | $ 1,356,453 | $ 1,133,002 |
| IBNR | 2,487,839 | 1,605,201 |
| Reserve for losses and loss expenses | $ 3,844,292 | $ 2,738,203 |

The following table represents an analysis of paid and unpaid losses and loss expenses incurred and a reconciliation of the beginning and ending unpaid losses and loss expenses for the years ended December 31, 2017 and 2016:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Reserve for losses and loss expenses, beginning of year | $ 2,738,203 | $ 2,763,405 |
| Loss reserves recoverable | (221,963) | (128,437) |
| Net reserves for losses and loss expenses, beginning of year | 2,516,240 | 2,634,968 |
| Net reserves acquired [(a)] | 23,753 | — |
| Increase (decrease) in net reserves for losses and loss expenses in respect of losses occurring in: | | |
| Current year | 1,837,234 | 1,233,701 |
| Prior years | (209,994) | (213,456) |
| Total incurred losses and loss expenses | 1,627,240 | 1,020,245 |
| Foreign exchange loss (gain) | 48,110 | (31,465) |
| Less net losses and loss expenses paid in respect of losses occurring in: | | |
| Current year | (556,562) | (382,585) |
| Prior years | (730,366) | (724,923) |
| Total net paid losses | (1,286,928) | (1,107,508) |
| Net reserve for losses and loss expenses, end of year | 2,928,415 | 2,516,240 |
| Loss reserves recoverable | 915,877 | 221,963 |
| Reserve for losses and loss expenses, end of year | $ 3,844,292 | $ 2,738,203 |

(a) Equals net reserves acquired of $42,575 less net reserves commuted at closing of $18,822.

Incurred losses and loss expenses comprise:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Gross losses and loss expenses | $ 2,599,054 | $ 1,144,741 |
| Reinsurance recoveries | (971,814) | (124,496) |
| Net incurred losses and loss expenses | $ 1,627,240 | $ 1,020,245 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The net favorable development on prior accident years by line of business is as follows:

| | Line of business | | | |
|---|---|---|---|---|
| | Property | Specialty - Short-tail | Specialty - Other | Total |
| Year Ended December 31, 2017 | $ (60,265) | $ (106,341) | $ (43,388) | $ (209,994) |
| Year Ended December 31, 2016 | $ (98,957) | $ (64,639) | $ (49,860) | $ (213,456) |

The net favorable development on prior accident years for the years ended December 31, 2017 and 2016 was primarily driven by favorable development on attritional losses.

**Short Duration Contract Disclosures**

The Company has disaggregated its information presented in the tables below by line of business. The Company has presented the below development tables for all accident years shown using exchange rates as at December 31, 2017. All accident years prior to the current year have been presented using the current year exchange rate.

***(a) Loss Development Tables***

The loss development tables have been produced by line of business for accident years 2012 through to 2017. The Company determined that it was impracticable to produce IBNR by accident year by lines of business for years prior to 2012 as the necessary data in original currency was not readily available. In addition, the Company provides treaty reinsurance products on a global basis for all of its lines of business and does not receive or maintain claims count information associated with its reserved claims. As such, the Company has determined that it is impracticable to provide this information.

The net reserves for losses and loss expenses related to the acquisitions of IPC, acquired on September 4, 2009, and Flagstone, acquired on November 30, 2012, have been incorporated in the reserves for losses and loss expenses on a prospective basis. IPC and Flagstone were put into run-off as at the acquisition date of each. The prospective treatment for the acquisition of Flagstone was adopted primarily as a result of the data necessary to produce the loss development tables by accident year and by lines of business not being migrated over on acquisition as it was not requested or received and as a result does not exist within the Company's data systems.

On May 1, 2017, the Company acquired $23,753 of net loss and loss expense reserves in connection with the CRS acquisition. All of these net reserves acquired, as well as losses and loss expenses incurred and paid by CRS subsequent to the acquisition and reflected in the tables below, were incurred during accident year 2017.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

**Property**

| | Incurred Losses and Loss Expenses, Net of Reinsurance | | | | | | December 31, 2017 |
|---|---|---|---|---|---|---|---|
| | Years Ended December 31, | | | | | | |
| Accident Year | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Total of IBNR Reserves Plus Expected Development on Reported Losses |
| | <------ *Unaudited* | | | | ------> | | |
| 2012 | $ 552,395 | $ 453,508 | $ 429,047 | $ 402,721 | $ 400,098 | $ 398,738 | $ 22,880 |
| 2013 | — | 323,336 | 286,281 | 258,083 | 246,524 | 241,765 | 2,809 |
| 2014 | — | — | 296,069 | 257,104 | 243,001 | 239,819 | 7,350 |
| 2015 | — | — | — | 327,376 | 259,297 | 233,113 | 19,829 |
| 2016 | — | — | — | — | 383,611 | 374,168 | 72,735 |
| 2017 | — | — | — | — | — | 734,099 | 254,823 |
| | | | | | Total | $ 2,221,702 | |

| | Cumulative Paid Losses and Loss Expenses, Net of Reinsurance | | | | | |
|---|---|---|---|---|---|---|
| | Years Ended December 31, | | | | | |
| Accident Year | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| | <------ *Unaudited* | | | | ------> | |
| 2012 | $ 91,385 | $ 227,849 | $ 304,237 | $ 332,185 | $ 345,526 | $ 351,990 |
| 2013 | — | 46,886 | 139,763 | 198,900 | 219,327 | 227,784 |
| 2014 | — | — | 69,233 | 167,544 | 205,454 | 218,990 |
| 2015 | — | — | — | 59,556 | 148,790 | 187,322 |
| 2016 | — | — | — | — | 94,990 | 221,464 |
| 2017 | — | — | — | — | — | 249,150 |
| | | | | | Total | $ 1,456,700 |

| | |
|---|---|
| Reserves for losses and loss expenses, before 2012, net of reinsurance [(a)] | $ 129,079 |
| Reserves for losses and loss expenses, net of reinsurance | $ 894,081 |

(a) Includes reserves for losses and loss expense, net of reinsurance, of $63,115 and $8,854 related to Flagstone and IPC, respectively.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

**Specialty - Short-tail**

| | Incurred Losses and Loss Expenses, Net of Reinsurance | | | | | | December 31, 2017 |
|---|---|---|---|---|---|---|---|
| | Years Ended December 31, | | | | | | Total of IBNR Reserves Plus Expected Development on Reported Losses |
| Accident Year | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | |
| | <---------------- *Unaudited* ----------------> | | | | | | |
| 2012 | $ 510,209 | $ 540,842 | $ 524,038 | $ 507,959 | $ 502,571 | $ 501,925 | $ 17,777 |
| 2013 | — | 517,588 | 526,814 | 487,869 | 475,726 | 468,482 | 10,714 |
| 2014 | — | — | 534,278 | 488,702 | 464,053 | 451,308 | 18,650 |
| 2015 | — | — | — | 650,899 | 638,896 | 603,099 | 67,923 |
| 2016 | — | — | — | — | 547,467 | 499,574 | 77,838 |
| 2017 (a) | — | — | — | — | — | 759,658 | 359,125 |
| | | | | | Total | $ 3,284,046 | |

| | Cumulative Paid Losses and Loss Expenses, Net of Reinsurance | | | | | |
|---|---|---|---|---|---|---|
| | Years Ended December 31, | | | | | |
| Accident Year | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| | <---------------- *Unaudited* ----------------> | | | | | |
| 2012 | $ 82,047 | $ 279,013 | $ 383,656 | $ 421,639 | $ 437,616 | $ 458,817 |
| 2013 | — | 190,333 | 341,662 | 390,592 | 411,743 | 429,673 |
| 2014 | — | — | 161,746 | 315,747 | 367,893 | 384,115 |
| 2015 | — | — | — | 237,786 | 380,170 | 476,868 |
| 2016 | — | — | — | — | 219,698 | 341,791 |
| 2017 (a) | — | — | — | — | — | 281,542 |
| | | | | | Total | $ 2,372,806 |
| Reserves for losses and loss expenses, before 2012, net of reinsurance (b) | | | | | | $ 139,279 |
| Reserves for losses and loss expenses, net of reinsurance | | | | | | $ 1,050,519 |

(a) The 2017 accident year includes incurred losses and loss expenses, and cumulative paid losses and loss expenses, net of reinsurance, of $226,190 and $122,088, respectively, related to CRS.

(b) Includes reserves for losses and loss expense, net of reinsurance, of $39,416 and $6,686 related to Flagstone and IPC, respectively.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

**Specialty - Other**

| | Incurred Losses and Loss Expenses, Net of Reinsurance | | | | | | December 31, 2017 |
|---|---|---|---|---|---|---|---|
| | Years Ended December 31, | | | | | | |
| **Accident Year** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **Total of IBNR Reserves Plus Expected Development on Reported Losses** |
| | <------ *Unaudited* | | | | ------> | | |
| **2012** | $ 216,264 | $ 197,247 | $ 204,291 | $ 203,835 | $ 195,928 | $ 192,820 | $ 1,274 |
| **2013** | — | 235,082 | 243,870 | 225,748 | 209,797 | 206,516 | 12,649 |
| **2014** | — | — | 342,174 | 336,283 | 334,675 | 337,593 | 50,919 |
| **2015** | — | — | — | 276,892 | 268,347 | 261,887 | 70,752 |
| **2016** | — | — | — | — | 282,519 | 260,609 | 152,545 |
| **2017** | — | — | — | — | — | 352,731 | 299,799 |
| | | | | | Total | $ 1,612,156 | |

| | Cumulative Paid Losses and Loss Expenses, Net of Reinsurance | | | | | |
|---|---|---|---|---|---|---|
| | Years Ended December 31, | | | | | |
| **Accident Year** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** |
| | <------ *Unaudited* | | | | ------> | |
| **2012** | $ 21,073 | $ 57,617 | $ 102,127 | $ 135,135 | $ 166,413 | $ 176,937 |
| **2013** | — | 13,538 | 55,833 | 99,483 | 137,793 | 167,023 |
| **2014** | — | — | 24,091 | 96,180 | 166,648 | 215,030 |
| **2015** | — | — | — | 18,384 | 74,327 | 125,621 |
| **2016** | — | — | — | — | 17,873 | 52,863 |
| **2017** | — | — | — | — | — | 16,197 |
| | | | | | Total | $ 753,671 |
| Reserves for losses and loss expenses, before 2012, net of reinsurance [(a)] | | | | | | $ 64,377 |
| Reserves for losses and loss expenses, net of reinsurance | | | | | | $ 922,862 |

(a) Includes reserves for losses and loss expense, net of reinsurance, of $6,021 and $98 related to Flagstone and IPC, respectively.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### *(b) Reconciliation of Loss Development Information to the Reserve for Losses and Loss Expenses*

The following table reconciles the loss development information to the Company's reserves for losses and loss expenses as at December 31, 2017:

| | | December 31, 2017 |
|---|---|---|
| **Reserves for losses and loss expenses, net of reinsurance** | | |
| Property | $ | 894,081 |
| Specialty - Short-tail | | 1,050,519 |
| Specialty - Other | | 922,862 |
| **Total reserves for losses and loss expenses, net of reinsurance** | | 2,867,462 |
| **Loss reserves recoverable** | | |
| Property | | 575,042 |
| Specialty - Short-tail | | 270,317 |
| Specialty - Other | | 70,518 |
| **Total loss reserves recoverable** | | 915,877 |
| Unallocated loss expenses | | 51,734 |
| Provisions for uncollectible reinsurance | | 8,848 |
| Other | | 371 |
| **Total reserves for losses and loss expenses** | $ | 3,844,292 |

### *(c) Historical Loss Duration*

The following table summarizes the historic average annual percentage payout of incurred losses by age, net of reinsurance, as of December 31, 2017:

| | Average Annual Percentage Payout of Incurred Losses by Age, Net of Reinsurance (Unaudited) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | December 31, 2017 | | | | | | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| Property | 26.0% | 37.1% | 19.0% | 7.0% | 3.4% | 1.6% | n/a | n/a | n/a | n/a |
| Specialty - Short-tail | 35.5% | 30.7% | 14.7% | 5.2% | 3.5% | 4.2% | n/a | n/a | n/a | n/a |
| Specialty - Other | 7.2% | 19.1% | 21.2% | 16.7% | 15.2% | 5.5% | n/a | n/a | n/a | n/a |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### 13. Reinsurance

The Company's reinsurance balances recoverable at December 31, 2017 and 2016 were as follows:

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| Loss reserves recoverable on unpaid: | | |
| Case reserves | $ 158,859 | $ 69,663 |
| IBNR | 757,018 | 152,300 |
| Total loss reserves recoverable | 915,877 | 221,963 |
| Paid losses recoverable | 55,876 | 14,085 |
| Total reinsurance recoverable | $ 971,753 | $ 236,048 |

### (a) Effects of reinsurance on premiums written and earned

The effects of reinsurance on net premiums written and earned, and on losses and loss expenses for the years ended December 31, 2017 and 2016 were as follows:

| | Years Ended December 31, | |
|---|---|---|
| **Premiums written:** | 2017 | 2016 |
| Treaty Reinsurance | $ 1,942,044 | $ 2,001,977 |
| Direct | 626,249 | 323,220 |
| Ceded | (390,298) | (230,147) |
| Net premiums written | $ 2,177,995 | $ 2,095,050 |

| | Years Ended December 31, | |
|---|---|---|
| **Premiums earned:** | 2017 | 2016 |
| Treaty Reinsurance | $ 1,954,958 | $ 1,930,782 |
| Direct | 885,339 | 294,376 |
| Ceded | (561,209) | (226,064) |
| Net premiums earned | $ 2,279,088 | $ 1,999,094 |

| | Years Ended December 31, | |
|---|---|---|
| **Losses and loss expenses:** | 2017 | 2016 |
| Treaty Reinsurance | $ 1,802,545 | $ 950,758 |
| Direct | 796,509 | 193,983 |
| Ceded | (971,814) | (124,496) |
| Losses and loss expenses | $ 1,627,240 | $ 1,020,245 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### (b) Credit risk

The cession of reinsurance does not legally discharge the Company from its primary liability for the full amount of the (re)insurance policies it writes, and the Company is required to pay the loss and bear collection risk regarding reinsurers' obligations under reinsurance and retrocession agreements. Validus records provisions for uncollectible reinsurance recoverable when collection becomes unlikely due to the reinsurer's inability to pay.

To the extent the creditworthiness of the Company's reinsurers were to deteriorate due to adverse events affecting the reinsurance industry, such as a large number of major catastrophes, actual uncollectible amounts could be significantly greater than the Company's provision. Amounts recoverable from reinsurers are estimated in a manner consistent with the underlying loss reserves.

The Company evaluates the financial condition of its reinsurers and monitors concentration of credit risk arising from its exposure to individual reinsurers. The reinsurance program is generally placed with reinsurers whose rating, at the time of placement, was A- or better as rated by Standard & Poor's or the equivalent with other rating agencies. Exposure to a single reinsurer is also controlled with restrictions dependent on rating. As at December 31, 2017, $964,813 or 99.3% (December 31, 2016: $235,623 or 99.8%) of the Company's reinsurance balances recoverable were either fully collateralized or recoverable from reinsurers rated A- or better.

Information regarding the Company's concentration of credit risk arising from its exposure to individual reinsurers as at December 31, 2017 and 2016 is as follows:

| | December 31, 2017 | | December 31, 2016 | |
|---|---|---|---|---|
| | Reinsurance Recoverable | % of Total | Reinsurance Recoverable | % of Total |
| Top 10 reinsurers | $ 865,511 | 89.1% | $ 226,567 | 96.0% |
| Other reinsurers' balances > $1 million | 100,584 | 10.4% | 5,088 | 2.2% |
| Other reinsurers' balances < $1 million | 5,658 | 0.5% | 4,393 | 1.8% |
| **Total** | $ 971,753 | 100.0% | $ 236,048 | 100.0% |

| | December 31, 2017 | | |
|---|---|---|---|
| **Top 10 Reinsurers** | Rating | Reinsurance Recoverable | % of Total |
| Fully collateralized reinsurers | NR | $ 494,724 | 50.8% |
| Munich Re | AA- | 82,975 | 8.5% |
| Federal Crop Insurance Corporation | (a) | 68,745 | 7.1% |
| Everest Re | A+ | 52,056 | 5.4% |
| Qatar Insurance Company | A | 50,160 | 5.2% |
| Swiss Re | AA- | 49,092 | 5.1% |
| Markel | A | 21,978 | 2.3% |
| Lloyd's Syndicates | A+ | 20,570 | 2.1% |
| Chubb | AA | 13,961 | 1.4% |
| Manufacturers P&C Limited | A+ | 11,250 | 1.2% |
| **Total** | | $ 865,511 | 89.1% |

NR: Not rated

(a) The Company participates in a crop reinsurance program sponsored by the U.S. federal government. The Company remains obligated for amounts ceded in the event that its reinsurers or retrocessionaires do not meet their obligations, except for amounts ceded to the U.S. federal government in the Insurance segment agriculture line of business.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

| | December 31, 2016 | | |
|---|---|---|---|
| **Top 10 Reinsurers** | **Rating** | **Reinsurance Recoverable** | **% of Total** |
| Fully collateralized reinsurers | NR | $ 119,559 | 50.6% |
| Swiss Re | AA- | 58,191 | 24.7% |
| Hamilton Re | A- | 10,343 | 4.4% |
| Munich Re | AA- | 8,211 | 3.5% |
| National Indemnity Company | AA+ | 7,582 | 3.2% |
| Toa Re | A+ | 7,353 | 3.1% |
| Hannover Re | AA- | 5,947 | 2.5% |
| Allied World Re | A | 3,942 | 1.7% |
| Merrimack Mutual Fire Insurance | A+ | 2,868 | 1.2% |
| Renaissance Re | AA- | 2,571 | 1.1% |
| **Total** | | $ 226,567 | 96.0% |

NR: Not rated

## 14. Share capital

### (a) Authorized and issued

The Company's authorized share capital is 1,000,000 common shares with a par value of $1.00 each.

On October 19, 2005, the Company issued 1,000,000 common shares at a price of $1,000.00 each. Proceeds from this issuance were $1,000,000.

### (b) Capital contributions and distributions

During the year ended December 31, 2017, the Company received capital contributions from and made capital distributions to Validus Holdings of $250,000 and $115,000, respectively (2016: $100,000 and $290,000, respectively).

### (c) Dividends

The Company paid dividends to Validus Holdings of $111,000 during the year ended December 31, 2017 (2016: $nil).

## 15. Stock plans

### (a) Long Term Incentive Plan

Validus Holdings' Amended and Restated 2005 Long Term Incentive Plan ("LTIP") provides for grants to employees of options, stock appreciation rights ("SARs"), restricted shares, restricted share units, performance shares, dividend equivalents or other share-based awards. The total number of shares reserved for issuance under the LTIP are 2,753,292 shares of which 702,305 shares are remaining. The LTIP is administered by the Validus Holdings Compensation Committee of the Board of Directors. No SARs have been granted to date. The grant date fair value of each award is established at the fair market value of Validus Holdings' common shares at the date of grant.

#### (i) Restricted share awards

Restricted shares granted under the LTIP vest either pro rata or 100% at the end of the required service period and contain certain restrictions during the vesting period, relating to, among other things, forfeiture in the event of termination of employment, and transferability. Share compensation expenses of $9,857 were recorded in connection with restricted share awards for the year ended December 31, 2017 (2016: $9,814). The expenses represent the proportionate accrual of the fair value of each grant based on the remaining vesting period.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

Activity with respect to unvested restricted share awards for the years ended December 31, 2017 and 2016 was as follows:

| | Years Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | | 2016 | | |
| | Restricted Share Awards | | Weighted Average Grant Date Fair Value | Restricted Share Awards | | Weighted Average Grant Date Fair Value |
| Restricted share awards outstanding, beginning of year | 670,322 | $ | 41.80 | 666,939 | $ | 39.53 |
| Transferred in due to employee movement | 22,035 | | 36.25 | 17,608 | | 38.09 |
| Restricted share awards outstanding, beginning of year, as adjusted | 692,357 | $ | 41.62 | 684,547 | $ | 39.49 |
| Granted | 173,049 | | 52.96 | 145,406 | | 49.07 |
| Vested | (277,319) | | 41.74 | (157,662) | | 38.37 |
| Forfeited | — | | — | (1,969) | | 50.79 |
| Restricted share awards outstanding, end of year | 588,087 | $ | 44.90 | 670,322 | $ | 41.80 |

At December 31, 2017, there were $15,332 (December 31, 2016: $15,783) of total unrecognized share compensation expenses in respect of restricted share awards that are expected to be recognized over a weighted-average period of 2.4 years (December 31, 2016: 2.3 years).

**(ii) Restricted share units**

Restricted share units under the LTIP vest either ratably or 100% at the end of the required service period and contain certain restrictions during the vesting period, relating to, among other things, forfeiture in the event of termination of employment, and transferability. Share compensation expenses of $736 were recorded for the year ended December 31, 2017 (2016: $1,010). The expenses represent the proportionate accrual of the fair value of each grant based on the remaining vesting period.

Activity with respect to unvested restricted share units for the years ended December 31, 2017 and 2016 was as follows:

| | Years Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | | 2016 | | |
| | Restricted Share Units | | Weighted Average Grant Date Fair Value | Restricted Share Units | | Weighted Average Grant Date Fair Value |
| Restricted share units outstanding, beginning of year | 62,133 | $ | 40.11 | 104,120 | $ | 38.13 |
| Transferred out due to employee movement | — | | — | (39,763) | | 38.93 |
| Restricted share units outstanding, beginning of year, as adjusted | 62,133 | $ | 40.11 | 64,357 | $ | 37.64 |
| Granted | 8,052 | | 53.40 | 12,940 | | 48.69 |
| Vested | (13,168) | | 41.45 | (16,949) | | 37.16 |
| Issued in lieu of cash dividends | 1,675 | | 40.93 | 1,785 | | 38.84 |
| Restricted share units outstanding, end of year | 58,692 | $ | 41.65 | 62,133 | $ | 40.11 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

At December 31, 2017, there were $1,050 (December 31, 2016: $1,342) of total unrecognized share compensation expenses in respect of restricted share units that are expected to be recognized over a weighted average period of 2.4 years (December 31, 2016: 2.4 years).

**(iii) Performance share awards**

Performance share awards vest three years after the grant date, with the grant date fair value of each share awarded recognized evenly over this period. The number of performance shares initially granted is adjusted via "conversion adjustments" to reflect the compounded growth in the Dividend-Adjusted Book Value per Diluted Share over the three years. The cumulative compensation expense recognized and unrecognized as at any reporting period date represents the adjusted estimate of performance shares that will ultimately be awarded, valued at their original grant date fair values.

Share compensation expenses of $1,053 were recorded for the year ended December 31, 2017 (2016: $793). The share compensation expenses represent the proportionate accrual of the fair value of each grant based on the remaining vesting period.

Activity with respect to unvested performance share awards for the years ended December 31, 2017 and 2016 was as follows:

| | Years Ended December 31, | | | |
|---|---|---|---|---|
| | 2017 | | 2016 | |
| | Performance Share Awards | Weighted Average Grant Date Fair Value | Performance Share Awards | Weighted Average Grant Date Fair Value |
| Performance share awards outstanding, beginning of year | 64,673 | $ 45.63 | 22,762 | $ 42.14 |
| Granted | 32,631 | 53.40 | 37,637 | 48.69 |
| Vested | (8,546) | 37.33 | — | — |
| Conversion adjustment | (4,274) | 37.33 | 4,274 | 37.33 |
| Performance share awards outstanding, end of year | 84,484 | $ 49.89 | 64,673 | $ 45.63 |

At December 31, 2017, there were $2,299 (December 31, 2016: $1,795) of total unrecognized share compensation expenses in respect of performance share awards that are expected to be recognized over a weighted average period of 2.0 years (December 31, 2016: 2.2 years).

**(b) Total share compensation expenses**

The breakdown of share compensation expenses by award type was as follows:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Restricted share awards | 9,857 | 9,814 |
| Restricted share units | 736 | 1,010 |
| Performance share awards | 1,053 | 793 |
| **Total share compensation expenses** | $ 11,646 | $ 11,617 |

The Company recognized $(213) of associated tax (expense) for the year ended December 31, 2017 (2016: benefits of $1,522). The Company also recognized $1,187 of net windfall taxes during the year ended December 31, 2017 (2016: $569) in relation to share vestings and option exercises.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

## 16. Retirement and pension plans

### (a) Defined benefit plans

Certain senior executives and retired selected key employees of our U.S.-based insurance operations participate in non qualified, unfunded, defined benefit plans. Benefits for these plans are based on final average earnings, social security benefits earned at retirement date and years of service.

The assumptions used to determine net periodic pension expense for the years ended December 31, 2017 and 2016 are as follows:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Discount rate | 3.75% | 3.50% |
| Increase in compensation levels rate | 5.00% | 5.00% |

The assumptions used to determine benefit obligations as at December 31, 2017 and 2016 are as follows:

| | December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Discount rate | 3.50% | 4.00% |
| Increase in compensation levels rate | 5.00% | 5.00% |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The following tables present a reconciliation of the beginning and ending funded status and the net amounts recognized for the defined benefit plans for the years ended December 31, 2017 and 2016:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Change in benefit obligation: | | |
| Projected benefit obligation, beginning of year | $ 16,979 | $ 15,722 |
| Service cost | 1,005 | 1,026 |
| Interest cost | 566 | 594 |
| Actuarial (gains) losses | (3,719) | 1,473 |
| Benefit payments | (71) | (98) |
| Settlements | (2,805) | (1,738) |
| Projected benefit obligation, end of year | $ 11,955 | $ 16,979 |
| Change in plan assets | | |
| Fair value of plan assets, beginning of year | $ — | $ — |
| Employer contributions | 2,876 | 1,836 |
| Benefit payments | (71) | (98) |
| Settlements | (2,805) | (1,738) |
| Fair value of plan assets, end of year | — | — |
| Funded status at end of year | $ (11,955) | $ (16,979) |
| Net amount recognized in accounts payable and accrued expenses | $ (11,955) | $ (16,979) |
| Amounts recognized in accumulated other comprehensive income (loss) consist of: | | |
| Net (gain) loss | $ (4,188) | $ 226 |
| Prior service credit | 6 | 6 |
| Net amount recognized | $ (4,182) | $ 232 |

| | December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Projected benefit obligation | $ 11,955 | $ 16,979 |
| Accumulated benefit obligation | $ 10,666 | $ 13,480 |
| Fair value of plan assets | $ — | $ — |

The components of net periodic pension expense for the years ended December 31, 2017 and 2016 are as follows:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Service cost | $ 1,005 | $ 1,026 |
| Interest cost | 566 | 594 |
| Amortization of prior service cost | — | (2) |
| Amortization of net loss | 158 | 374 |
| Net periodic benefit cost | 1,729 | 1,992 |
| Settlement loss | 537 | 356 |
| **Net periodic pension expense** | $ 2,266 | $ 2,348 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss) for the years ended December 31, 2017 and 2016 are as follows:

| | Years Ended December 31, 2017 | Years Ended December 31, 2016 |
|---|---|---|
| Net (gain) loss | $ (3,719) | $ 1,473 |
| Amortization of loss | (158) | (374) |
| Amortization of prior service cost | — | 2 |
| Settlement loss | (537) | (356) |
| **Total recognized in other comprehensive (income) loss** | $ (4,414) | $ 745 |
| **Total recognized in net pension expense and other comprehensive income (before tax effects)** | $ (2,148) | $ 3,093 |

The estimated amount of net (gain) and prior service cost expected to be amortized from accumulated other comprehensive (loss) income into net periodic pension expense over the next fiscal year is $(10).

The employer benefit payments/settlements for the year ended December 31, 2017 were $2,876 (2016: $1,836). As at December 31, 2017, the projected benefits are as follows:

| | Projected Benefit Payments |
|---|---|
| 2018 | $ 336 |
| 2019 | 6,597 |
| 2020 | 2,696 |
| 2021 | 66 |
| 2022 | 64 |
| 2023 - 2026 | 4,765 |
| **Total benefit payments required** | $ 14,524 |

### (b) Other pension plans

The Company provides pension benefits to eligible employees through various plans which are managed externally and sponsored by the Company. The Company's contributions are expensed as incurred. The Company's expenses for its defined contribution retirement plans for the year ended December 31, 2017 were $5,192 (2016: $5,310).

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### 17. Debt and financing arrangements

The Company's financing structure is comprised of debentures payable along with credit and other facilities.

#### (a) Junior Subordinated Deferrable Debentures

As part of the acquisition of Flagstone, the Company assumed Junior Subordinated Deferrable Debentures due 2036 and 2037 (respectively, the "Flagstone 2006 Junior Subordinated Deferrable Debentures" and "Flagstone 2007 Junior Subordinated Deferrable Debentures"). These debentures are redeemable quarterly at par. There were no redemptions made during the years ended December 31, 2017 and 2016.

The Company's outstanding debentures as at December 31, 2017 and 2016 were as follows:

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| **Deferred debentures** | | |
| Flagstone 2006 Junior Subordinated | $ 135,608 | $ 133,676 |
| Flagstone 2007 Junior Subordinated | 113,750 | 113,750 |
| **Total debentures payable** | $ 249,358 | $ 247,426 |

Future payments of principal of $249,358 on the debentures are all expected to be after 2022.

The following table summarizes the key terms of the Company's junior subordinated deferrable debentures:

| Description | Issuance date | Issued | Maturity date | Interest Rate | Interest payments due |
|---|---|---|---|---|---|
| Flagstone 2006 Junior Subordinated Deferrable Debentures | August 23, 2006 | $ 135,608 | September 15, 2036 | 3.540% (a) | Quarterly |
| Flagstone 2007 Junior Subordinated Deferrable Debentures | June 8, 2007 | $ 100,000 | July 30, 2037 | 3.000% (a) | Quarterly |
| Flagstone 2007 Junior Subordinated Deferrable Debentures | September 20, 2007 | $ 25,000 | September 15, 2037 | 3.100% (a) | Quarterly |

(a) Floating interest rate of three-month LIBOR plus amount stated for the Company, reset quarterly.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

**(b) Credit and other facilities**

The Company's outstanding credit and other facilities as at December 31, 2017 and 2016 were as follows:

| | December 31, 2017 | | | |
|---|---|---|---|---|
| **Credit facility** | **Commitment** | **Outstanding [(a)]** | **Drawn [(b)]** | **Cash and investments pledged as collateral** |
| $85,000 syndicated unsecured letter of credit facility | $ 85,000 | $ — | $ — | $ — |
| $300,000 syndicated secured letter of credit facility.. | 300,000 | 92,979 | — | 118,188 |
| $24,000 secured bi-lateral letter of credit facility ...... | 24,000 | 5,765 | — | 22,340 |
| $25,000 IPC bi-lateral facility ................................... | 25,000 | 7,754 | — | — |
| $236,000 Flagstone bi-lateral facility ......................... | 236,000 | 115,680 | — | 184,569 |
| $65,000 unsecured revolving credit facility .............. | 65,000 | — | — | — |
| $100,000 unsecured revolving credit facility ............ | 100,000 | — | — | — |
| FHLB secured facility ................................................ | 484,096 | 206,000 | 206,000 | 251,767 |
| **Total credit facilities** ................................................. | $ 1,319,096 | $ 428,178 | $ 206,000 | $ 576,864 |

(a) Indicates utilization of commitment amount.

(b) Represents drawn borrowings included in accounts payable and accrued expenses.

| | December 31, 2016 | | | |
|---|---|---|---|---|
| **Credit facility** | **Commitment** | **Outstanding [(a)]** | **Drawn [(b)]** | **Cash and investments pledged as collateral** |
| $85,000 syndicated unsecured letter of credit facility | $ 85,000 | $ — | $ — | $ — |
| $300,000 syndicated secured letter of credit facility.. | 300,000 | 121,428 | — | 157,597 |
| $24,000 secured bi-lateral letter of credit facility ...... | 24,000 | 4,553 | — | 48,097 |
| $25,000 IPC bi-lateral facility ................................... | 25,000 | 8,807 | — | — |
| $236,000 Flagstone bi-lateral facility ......................... | 236,000 | 156,375 | — | 216,458 |
| **Total credit facilities** ................................................. | $ 670,000 | $ 291,163 | $ — | $ 422,152 |

(a) Indicates utilization of commitment amount.

(b) Represents drawn borrowings included in accounts payable and accrued expenses.

***(i) $85,000 syndicated unsecured letter of credit facility and $300,000 syndicated secured letter of credit facility***

On December 9, 2015, Validus Holdings, the Company and certain designated subsidiaries of Validus Holdings (the "Account Parties") entered into a $85,000 five year unsecured facility (the "Five Year Unsecured Facility") and a $300,000 five-year secured credit facility (the "Five Year Secured Facility" and together with the Five Year Unsecured Facility, the "Credit Facilities"). The Credit Facilities provides for letter of credit ("LOC") and revolving credit availability for the Account Parties and were provided by a syndicate of commercial banks.

As of December 31, 2017, there were $nil of outstanding LOCs under the Five Year Unsecured Facility (December 31, 2016: $nil) and $92,979 of outstanding LOCs under the Five Year Secured Facility (December 31, 2016: $121,428). As of December 31, 2017, Validus Holdings was in compliance with all covenants and restrictions under the Credit Facilities.

***(ii) $24,000 secured bi-lateral letter of credit facility***

The Company is party to an evergreen secured bi-lateral LOC facility with Citibank Europe plc (the "Secured bi-lateral LOC facility"). As of December 31, 2017, $5,765 of LOCs were outstanding under the Secured bi-lateral LOC facility (December 31, 2016: $4,553). The Secured bi-lateral LOC facility has no fixed termination date and as of December 31, 2017, and throughout the reporting periods presented, the Company was in compliance with all covenants and restrictions under the Secured bi-lateral LOC facility.

***(iii) $25,000 IPC bi-lateral facility***

The Company assumed an existing evergreen LOC facility through the acquisition of IPC Holdings, Ltd. (the "IPC bi-lateral facility"). As of December 31, 2017, $7,754 of LOCs were outstanding under the IPC bi-lateral facility (December 31, 2016: $8,807). As of December 31, 2017, and throughout the reporting periods presented, the Company was in compliance with all covenants and restrictions under the IPC bi-lateral facility.

***(iv) $236,000 Flagstone bi-lateral facility***

As part of the acquisition of Flagstone, the Company assumed an evergreen LOC Master Agreement between Citibank Europe plc and Flagstone Reassurance Suisse, S.A. (the "Flagstone Bi-Lateral Facility"). As of December 31, 2017, $115,680 of LOCs were outstanding under the Flagstone Bi-Lateral Facility (December 31, 2016: $156,375). As of December 31, 2017, and throughout the reporting periods presented, the Company was in compliance with all covenants and restrictions under the Flagstone Bi-Lateral Facility.

***(v) $65,000 unsecured revolving credit facility and $100,000 unsecured revolving credit facility***

On August 7, 2017, Validus Holdings and the Company entered into a $65,000 unsecured revolving credit facility with Barclays Bank PLC, as the lender (the "Barclays Unsecured Revolving Facility") expiring August 6, 2018. Loans under the Barclays Unsecured Revolving Facility will be available for the general corporate and working capital purposes of Validus Holdings. Borrowings under the Barclays Unsecured Revolving Facility bear interest at the base rate (the higher of (i) the prime rate quoted in the Wall Street Journal, (ii) the federal reserve bank effective rate plus 0.50%, and (iii) the adjusted LIBOR rate plus 1.0%) or the adjusted LIBOR rate applicable to such loans, plus an applicable rate.

Also on August 7, 2017, Validus Holdings and the Company entered into a $100,000 unsecured revolving credit facility with HSBC Bank USA, National Association, as the lender (the "HSBC Unsecured Revolving Facility" and together with the Barclays Unsecured Revolving Facility, the "Barclays and HSBC Unsecured Revolving Credit Facilities") expiring December 31, 2019. Loans under the HSBC Unsecured Revolving Facility will be available for the general corporate and working capital purposes of Validus Holdings. Borrowings under the HSBC Unsecured Revolving Facility bear interest at the base rate (the higher of (i) the prime rate announced by HSBC Bank USA, National Association, (ii) the higher of the federal reserve bank effective rate the overnight bank funding rate plus 0.50%, or (iii) the adjusted LIBOR rate plus 1.0%).

As of December 31, 2017, there was $65,000 (December 31, 2016: $nil) of available credit under the Barclays Unsecured Revolving Facility and $100,000 (December 31, 2016: $nil) of available credit under the HSBC Unsecured Revolving Facility.

The Barclays and HSBC Unsecured Revolving Credit Facilities contain covenants that include, among other things (i) the requirement that Validus Holdings initially maintain a minimum level of consolidated net worth of at least $2,789,131 and, commencing with the end of the fiscal quarter ending September 30, 2017, to be increased quarterly by an amount equal to 25% of the Company's consolidated net income (if positive) for such quarter plus 50% of the aggregate increases in the consolidated shareholders' equity of Validus Holdings during such fiscal quarter by reason of the issuance and sale of common equity interests of Validus Holdings, including upon any conversion of debt securities of Validus Holdings into such equity interests, (ii) the requirement that Validus Holdings maintain at all times a consolidated total debt to consolidated total capital ratio not greater than 0.35:1.00, and (iii) the requirement that the Company and any certain other material insurance subsidiaries maintain a financial strength rating by A.M. Best of not less than "B++" (Fair). In addition, the Barclays and HSBC Unsecured Revolving Credit Facilities contain customary negative covenants applicable to the Company, including limitations on the ability to pay dividends and other payments in respect of equity interests at any time that Validus Holdings is otherwise in default with respect to certain provisions under the respective Credit Facilities, limitations on the ability to incur liens, sell assets, merge or consolidate with others, enter into transactions with affiliates, and limitations on the ability of its subsidiaries to incur indebtedness. The Barclays and HSBC Unsecured Revolving Credit Facilities also contain customary affirmative covenants, representations and warranties and events of default for credit facilities of its type.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

As of December 31, 2017, and throughout the reporting periods presented, Validus Holdings and the Company were in compliance with all covenants and restrictions under the Barclays and HSBC Unsecured Revolving Facilities.

***(vi) Federal Home Loan Bank of New York ("FHLB") secured facility***

On August 16, 2017, the Company, through its wholly–owned subsidiary Western World, became a member of the Federal Home Loan Bank of New York ("FHLB"), which provides the Company with access to a secured asset-based borrowing capacity (the "FHLB Secured Facility"). Loans under the FHLB Secured Facility are available for the Company's general corporate and working capital purposes. The Company's borrowing potential is based on the financial condition and eligible collateral availability of the Company's U.S. based insurance subsidiaries. Currently FHLB limits the borrowing capacity at 30% of each member company's statutory admitted assets as of the previous reporting quarter.

As at December 31, 2017, the Company's maximum borrowing capacity was $484,096. As at December 31, 2017, the Company's borrowings under the FHLB Secured Facility totaled $206,000, and had a weighted-average interest rate associated with them of 1.59%. The FHLB Secured Facility has no fixed termination date.

The Company is required to pledge a minimum level of collateral, including securities pledged as collateral, as specified in writing by the FHLB in order to maintain its borrowing potential. At December 31, 2017, the Company had pledged assets of $251,767 as collateral in support of borrowings under the FHLB Secured Facility. As of December 31, 2017, and throughout the reporting periods presented, the Company was in compliance with all covenants and restrictions under the FHLB Secured Facility.

**(c) Finance expenses**

Finance expenses consist of interest on the Junior Subordinated Deferrable Debentures, credit facility fees, bank and other charges as follows:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Flagstone 2006 Junior Subordinated Deferrable Debentures | $ 6,245 | $ 5,628 |
| Flagstone 2007 Junior Subordinated Deferrable Debentures | 4,855 | 4,279 |
| Credit facilities | 2,014 | 2,060 |
| Bank and other charges | 1,315 | 190 |
| **Total finance expenses** | $ 14,429 | $ 12,157 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### 18. Income taxes

The Company provides for income taxes based upon amounts reported in the financial statements and the provisions of currently enacted tax laws. The Company is registered in Bermuda and is subject to Bermuda law with respect to taxation. Under current Bermuda law, the Company is not taxed on any Bermuda income or capital gains and has received an undertaking from the Bermuda Minister of Finance that, in the event of any Bermuda income or capital gains taxes being imposed, the Company will be exempt from such taxes until March 31, 2035.

The Company has subsidiaries and branches with operations in several jurisdictions outside Bermuda, including but not limited to the U.S., Switzerland and Canada that are subject to relevant taxes in those jurisdictions.

The Company's income (loss) before income tax for the years ended December 31, 2017 and 2016 was generated in the following domestic and foreign jurisdictions:

| | Years Ended December 31, 2017 | Years Ended December 31, 2016 |
|---|---|---|
| Domestic | | |
| Bermuda | $ 62,947 | $ 406,596 |
| Foreign | | |
| U.S. | (61,746) | 3,224 |
| Switzerland | 8,989 | (1,084) |
| Canada | 1,251 | 2,599 |
| Other | 16,747 | 26,392 |
| Total income before income taxes | $ 28,188 | $ 437,727 |

Income tax (benefit) expense is composed of both current and deferred tax attributable to U.S. and Non-U.S. jurisdictions as follows:

| | Years Ended December 31, 2017 | Years Ended December 31, 2016 |
|---|---|---|
| Current income tax (benefit) expense | | |
| U.S. | $ (629) | $ 1,927 |
| Non-U.S. | (2,850) | 1,313 |
| Total current income tax (benefit) expense | $ (3,479) | $ 3,240 |
| Deferred income tax (benefit) | | |
| U.S. | $ (4,295) | $ (3,487) |
| Non-U.S. | (2,635) | (18,771) |
| Total deferred income tax (benefit) | $ (6,930) | $ (22,258) |
| Total income tax (benefit) | | |
| U.S. | $ (4,924) | $ (1,560) |
| Non-U.S. | (5,485) | (17,458) |
| Total income tax (benefit) | $ (10,409) | $ (19,018) |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The table below is a reconciliation of the actual income tax benefit for the years ended December 31, 2017 and 2016 to the amount computed by applying the effective tax rate of 0% under Bermuda law to income before taxes:

| | Years Ended December 31, | |
|---|---|---|
| | 2017 | 2016 |
| Expected tax expense at Bermuda statutory rate of 0% | $ — | $ — |
| Foreign tax rate differential | (14,641) | 8,940 |
| Changes in valuation allowance | (7,997) | (37,003) |
| Tax exempt income and expenses not deductible | 792 | (443) |
| Impact of enacted changes in tax rates | 12,952 | 8,725 |
| Prior years tax adjustments | (1,612) | (2,083) |
| Other | 97 | 2,846 |
| Actual income tax benefit | $ (10,409) | $ (19,018) |

Deferred tax assets and liabilities primarily represent the tax effect of temporary differences between the carrying value of assets and liabilities for financial statement purposes and such values as measured by tax laws and regulations in countries in which the operations are taxable. Deferred tax assets may also represent the tax effect of tax losses carried forward.

In assessing whether a deferred tax asset can be recovered and assessing the need for a valuation allowance, the Company considers all positive and negative evidence to determine whether it is more likely than not that the tax benefit of part or all of a deferred tax asset will be realized. The Company's framework for assessing the recoverability of deferred tax assets primarily considers taxable income in prior carryback years when permitted by law, future reversal of existing taxable temporary differences, available tax planning strategies and the expected occurrence of future taxable income. The weighting of the positive and negative evidence is commensurate with the extent to which they can be objectively verified.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

Significant components of the Company's deferred tax assets and liabilities as at December 31, 2017 and 2016 were as follows:

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| **Deferred income tax assets related to:** | | |
| Tax losses carried forward | $ 113,766 | $ 116,413 |
| Tax credits carried forward | 2,611 | 5,469 |
| Deferred compensation | 1,226 | 4,501 |
| Deferred interest expense | 5,755 | 2,039 |
| Discounting of loss reserves | 5,137 | 9,938 |
| Unearned premiums reserve | 8,622 | 6,647 |
| Pension | 2,511 | 5,943 |
| Other | 5,811 | 3,296 |
| Total gross deferred income tax assets | 145,439 | 154,246 |
| Less: Valuation allowances | (86,272) | (98,062) |
| **Total net deferred income tax assets** | $ 59,167 | $ 56,184 |
| **Deferred income tax liabilities related to:** | | |
| Deferred acquisition costs | $ 5,962 | $ 4,633 |
| Intangibles | 4,230 | 7,583 |
| Unrealized appreciation on investments | 1,477 | 3,179 |
| Properties and fixed assets | 2,387 | 2,593 |
| Other | 2,022 | 2,640 |
| **Total deferred income tax liabilities** | 16,078 | 20,628 |
| **Net deferred tax asset** | $ 43,089 | $ 35,556 |

As part of the 2017 Tax Act, the U.S. statutory rate was reduced from 35% to 21%. Accordingly, the Company has re-measured U.S. deferred tax assets and liabilities based on the rate they are expected to reverse at in the future. As a result of the re-measurement, the Company's U.S. net deferred tax asset was reduced in 2017 by $12,934.

Additionally, the 2017 Tax Act prescribed a new method of discounting loss reserves for U.S. tax purposes which requires companies to calculate a revised tax loss reserve adjustment for periods prior to 2018 and then recognize this change in taxable income ratably over an eight year period. This would result in an increase to the deferred tax asset related to loss reserves and an equal increase to the deferred tax liability for the future taxable income, resulting in no impact to the net deferred tax asset as reported above. The new methodology will calculate the discount using a different index for the calculation than it had in the past. Specifically, it will use a lagging 60 month average of the "High Quality Corporate Bond Yield Curve." The legislation did not specify however, the maturity segment to use, and left the development of the precise methodology and calculation of the factors to the regulatory process. The U.S. Treasury is expected to publish the discount rates for the new method in time for the filing due date of the 2017 tax return on October 15, 2018. Since the U.S. Treasury has not yet published the rates and any estimation of them could result in a materially different adjustment than what the ultimate adjustment will be, the Company has chosen to not include a provisional amount for the deferred tax asset and liability in regards to the change in discounting methodology because the Company does not believe we have adequate information to provide a reasonable estimate. The Company will update its disclosure once the necessary information is available.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The movement in the deferred tax asset on tax losses carried forward and related valuation allowance from December 31, 2016 to December 31, 2017 can be explained as follows:

| | Deferred Tax Asset on Tax Losses Carried Forward | Valuation Allowance |
|---|---|---|
| Balance, beginning of year | $ 116,413 | $ (98,062) |
| Movement due to creation of tax losses carried forward | 12,490 | (2,242) |
| Movement due to use of tax losses carried forward | (8,765) | 2,456 |
| Movement due to provision to return adjustments | 1,521 | (1,521) |
| Movement due to changes in enacted tax rates | (7,292) | 3,192 |
| Movement due to change in assessment of deferred tax asset recoverability | — | 9,304 |
| Forfeiture of tax losses carried forward | (2,576) | 2,576 |
| Foreign exchange | 1,975 | (1,975) |
| Balance, end of year | $ 113,766 | $ (86,272) |

The above movement due to the creation of tax losses carried forward of $12,490 represents the tax benefit on current year tax losses that can be carried forward in the U.S. The related change in valuation allowance of $2,242 reflects the tax expense for certain U.S. tax losses carried forward where a valuation allowance was provided. The movement due to the use of tax losses carried forward of $8,765 reflects the impact from the use of tax losses carried forward in Luxembourg ($6,309), Switzerland ($1,888) and Singapore ($568). The related movement in valuation allowance of $2,456 represents the tax benefit from the use of tax losses carried forward where a full valuation allowance was previously provided (Switzerland: $1,888 and Singapore: $568). The movement due to provision to return adjustments of $1,521 represents prior year adjustments reflecting tax losses carried forward as per tax returns filed. The change in deferred tax asset of $7,292 and related valuation allowance of $3,192 reflects the impact of enacted changes in income tax rate, primarily in the U.S. The movement due to the change in assessment of deferred tax asset recoverability of $9,304 is due to the partial release of valuation allowances which had previously been applied against deferred tax assets related to carried forward Swiss and Luxembourg tax losses acquired as part of the Flagstone acquisition.

As at December 31, 2017, the Company believes, after review of all available positive and negative evidence that it is more likely than not to have sufficient future taxable income to realize a portion of these deferred tax assets. As such, the Company has recorded a partial release from the previously held valuation allowance resulting in a current year tax benefit. The tax effect from forfeiture of tax losses carried forward of $2,576 results from the net reduction of Swiss tax losses association with the application of non-taxable income of Validus Re Swiss' Bermuda Branch in accordance with Swiss law. The movement in foreign exchange of $1,975 represents the foreign exchange effect on the deferred tax asset and related valuation allowance for tax losses carried forward in local currency in Switzerland.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

As at December 31, 2017, the Company had net operating and capital losses carried forward, inclusive of cumulative currency translation adjustments, as follows:

| | Luxembourg | Switzerland | United States | Singapore | Total |
|---|---|---|---|---|---|
| 2018-2020 | $ — | $ 145,669 | $ — | $ — | $ 145,669 |
| 2029-2038 | — | — | 52,108 | — | 52,108 |
| No expiration date | 276,819 | — | — | 2,323 | 279,142 |
| Total | 276,819 | 145,669 | 52,108 | 2,323 | 476,919 |
| | | | | | |
| Gross deferred tax asset | 72,001 | 30,590 | 10,943 | 232 | 113,766 |
| Valuation allowance | (53,899) | (27,347) | (4,794) | (232) | (86,272) |
| Net deferred tax asset | $ 18,102 | $ 3,243 | $ 6,149 | $ — | $ 27,494 |

As of December 31, 2017, there are U.S. alternative minimum tax credit carryforwards of $5,755 which do not expire.

The valuation allowance as at December 31, 2017 of $86,272 (2016: $98,062) relates to tax losses carried forward in Luxembourg, Switzerland, Singapore and the U.S. The Company believes it is necessary to maintain a full valuation allowance against the deferred tax assets related to tax losses carried forward in Singapore and the U.S., outside the U.S. consolidated group, after review of all available positive and negative evidence, including uncertainty regarding the ability of the concerned operations to generate future taxable income to utilize the losses carried forward and realize the deferred tax assets. The weighting of the positive and negative evidence is commensurate with the extent to which they can be objectively verified.

As mentioned above, partial releases of $9,304 (Luxembourg: $6,061 and Switzerland: $3,243) of the valuation allowance previously held against a deferred tax asset related to tax losses carried forward was recorded as of December 31, 2017. The Company believes, after review of all positive and negative evidence, it is now more likely than not to have sufficient future taxable income to realize a portion of these deferred tax assets.

The U.S. consolidated group generated tax losses of $29,281 in 2017. The Company believes it is more likely than not that the U.S. consolidated group will have sufficient future taxable income to utilize these losses within a reasonable period of time.

The Company will continue to monitor all available positive and negative evidence, including its expectations for future taxable income in the relevant jurisdictions, in relation to the recoverability of its existing deferred tax balances. If the Company's positive evidence continues to develop favorably in the foreseeable future, it is possible that further releases of the valuation allowances related to deferred tax asset balances will occur.

Recognition of the benefit of a given tax position is based upon whether a company determines that it is more likely than not that a tax position will be sustained upon examination based upon the technical merits of the position. In evaluating the more-likely-than-not recognition threshold, the Company must presume the tax position will be subject to examination by a tax authority with full knowledge of all relevant information. If the recognition threshold is met, then the tax position is measured at the largest amount of benefit that is more than 50% likely of being realized upon ultimate settlement. As at December 31, 2017 and 2016, the Company had no accrued liabilities for tax, interest and penalties relating to uncertain tax positions. Interest and penalties related to uncertain tax positions would be recognized in income tax expense.

The Company has undistributed earnings in several foreign subsidiaries. If such earnings were to be distributed, as dividends or otherwise, they may be subject to income and withholding taxes. As a general rule, the Company intends to only distribute earnings that can be distributed in a tax free manner with the exception of a few smaller subsidiaries where the Company has accrued a withholding tax for such future distributions. In the United States, the Company intends to indefinitely reinvest any earnings such that no accrual of potential withholding tax was made. Were the Company to change its assertion that it would not indefinitely reinvest earnings in its U.S. subsidiaries, the Company estimates it would need to accrue $878 of withholding tax payable on future distributions.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

The Company has open examinations by tax authorities in the U.S. (2013-2016) and Switzerland (2014-2015). The Company believes that these examinations will be concluded within the next 12 months and currently does not expect any material adjustments as a result of these audits.

The Company has open tax years that are potentially subject to examination by local tax authorities in the following major tax jurisdictions: the U.S. (2016-2017), Switzerland (2013-2017) and Canada (2014-2017).

### 19. Accumulated other comprehensive income

The changes in accumulated other comprehensive income, by component for the years ended December 31, 2017, and 2016 are as follows:

| | Year Ended December 31, 2017 | | |
|---|---|---|---|
| | Minimum pension liability | Cash flow hedge | Total |
| Balance, net of tax, beginning of year | $ 23 | $ — | $ 23 |
| Other comprehensive income, net of tax | 2,869 | 1,890 | 4,759 |
| Balance, net of tax, end of year | $ 2,892 | $ 1,890 | $ 4,782 |

| | Year Ended December 31, 2016 |
|---|---|
| | Minimum pension liability |
| Balance, net of tax, beginning of year | $ 507 |
| Other comprehensive (loss), net of tax | (484) |
| Balance, net of tax, end of year | $ 23 |

(Expressed in thousands of U.S. dollars, except share and per share amounts)

### 20. Commitments and contingencies

#### (a) Concentrations of credit risk

The Company underwrites a significant amount of its reinsurance business through three brokers as set out below. There is credit risk associated with payments of (re)insurance balances to the Company in regards to these brokers' ability to fulfill their contractual obligations. These brokerage companies are large and well established, and there are no indications they are financially distressed. There was no other broker or (re)insured party that accounted for more than 10% of gross premiums written for the periods mentioned.

The following table shows the percentage of gross premiums written through each of these three brokers for the years ended December 31, 2017 and 2016:

| | Years Ended December 31, | |
|---|---|---|
| Broker | 2017 | 2016 |
| Marsh & McLennan Companies, Inc. | 24.3% | 29.4% |
| Aon Benfield Group Ltd. | 12.4% | 13.7% |
| Willis Towers Watson plc | 11.4% | 12.8% |

#### (b) Employment agreements

The Company has entered into employment agreements with certain individuals that provide for executive benefits and severance payments under certain circumstances.

#### (c) Operating leases

The Company leases office space and office equipment under operating leases. Total rent expense with respect to these operating leases for the year ended December 31, 2017 was approximately $5,471 (2016: $3,332). Future minimum lease commitments are as follows:

| | December 31, 2017 |
|---|---|
| 2018 | $ 5,811 |
| 2019 | 5,498 |
| 2020 | 5,084 |
| 2021 | 4,135 |
| 2022 | 4,149 |
| 2023 and thereafter | 34,659 |
| **Total** | **$ 59,336** |

#### (d) Funds at Lloyd's

The Company operates in Lloyd's through a corporate member, Talbot 2002 Underwriting Capital Ltd ("T02"), which is the sole participant in the Syndicate 1183 (the "Talbot Syndicate"). Lloyd's sets T02's Economic Capital Assessment ("ECA") annually based on the Talbot Syndicate's business plan, rating environment and reserving environment together with input arising from Lloyd's discussions with regulatory and rating agencies, and other parties. This ECA is satisfied by syndicate net assets determined on a basis consistent with Solvency II, an EU directive covering capital adequacy, risk management and regulatory reporting for insurers. Any syndicate net liabilities on a Solvency II basis are required to be funded in addition to the ECA. Such additional funds, known as Funds at Lloyd's ("FAL"), comprises cash and investments. The Company provided FAL in the amount of $661,600 during the fourth quarter of 2017 (2016: $583,600).

The amounts which are provided as FAL are not available for distribution to Validus Holdings for the payment of dividends. T02 may also be required to maintain funds under the control of Lloyd's in excess of its capital requirement and such funds also may not be available for distribution to Validus Holdings for the payment of dividends.

**(e) Investment affiliate commitments**

As discussed in Note 7(c), *"Investments in investment affiliates"*, the Company has entered into agreements with the Aquiline II General Partner, the Aquiline III General Partner, the Aquiline Tech General Partner and the Aquiline Armour General Partner, pursuant to which it assumed total capital commitments at December 31, 2017 of $60,000, $100,000, $20,000 and $40,340, respectively. The Company's remaining capital commitments relating to these agreements at December 31, 2017 was $3,229, $66,285, $16,142 and $40,340, respectively (December 31, 2016: $2,040, $62,031, $nil and $nil, respectively).

**(f) Investments in operating affiliates**

At December 31, 2016, the Company had entered into agreements with an AlphaCat ILS fund pursuant to which it has assumed total capital commitments of $25,000. During 2017, a portion of the Company's initial investment was returned and the Company assumed an additional capital commitment of $25,000. The Company's remaining unfunded capital commitment to the AlphaCat ILS fund at December 31, 2017 was $25,000 (December 31, 2016: $10,000).

**(g) Fixed maturity commitments**

At December 31, 2017, the Company had an outstanding commitment to participate in certain secured loan facilities through participation agreements with an established loan originator. The undrawn amount under the revolver facility participations as at December 31, 2017 was $22,082 (December 31, 2016: $28,499).

**(h) Other investment commitments**

At December 31, 2017, the Company had capital commitments in certain other investments of $193,000 (December 31, 2016: $233,000). The Company's remaining unfunded capital commitment to these investments at December 31, 2017 was $41,299 (December 31, 2016: $94,598).

**(i) Structured settlements**

As at December 31, 2017, the Company is contingently liable for the present value of amounts not yet due under annuities where the claimant is the payee for the amount of $3,203 (December 31, 2016: $3,186).

**21. Related party transactions**

The transactions listed below are classified as related party transactions as principals and/or directors of each counterparty are members of Validus Holdings' board of directors.

**(a) Aquiline Capital Partners LLC ("Aquiline Capital")**

***Group Ark Insurance***

Christopher E. Watson, a director of the Company and senior principal of Aquiline Capital, serves as a director of Group Ark Insurance Holdings Ltd. ("Group Ark"). Prior to August, 2016, Aquiline Capital was also a shareholder of Group Ark.

Pursuant to reinsurance agreements with a subsidiary of Group Ark, the Company recognized gross premiums written during the year ended December 31, 2016 of $3,157 with $292 included in premiums receivable at December 31, 2016. The Company also recognized reinsurance premiums ceded during the year ended December 31, 2016 of $40. The Company recorded $798 of loss reserves recoverable at December 31, 2016 and earned premium adjustments of $3,115 during the year ended December 31, 2016.

*Wellington*

Aquiline Capital are shareholders of Wellington Insurance Company ("Wellington") and Christopher E. Watson serves as a director of Wellington.

Pursuant to reinsurance agreements with a subsidiary of Wellington, the Company recognized gross premiums written during the year ended December 31, 2017 of $4,196 (2016: $2,860) with $211 included in premiums receivable at December 31, 2017 (December 31, 2016: $666). The Company also recognized premium adjustments during the year ended December 31, 2017 of $4,377 (2016: $2,603).

*Aquiline II, Aquiline III, Aquiline Tech and Aquiline Armour*

Jeffrey W. Greenberg and Christopher E. Watson, directors of the Company, serve as managing principal and senior principal, respectively, of Aquiline Capital. Additional information related to the Company's investments in Aquiline II, III, Tech and Armour is disclosed in Note 7(c), *"Investments in Investment Affiliates."*

The Company had, as of December 31, 2017 and December 31, 2016, investments in Aquiline II, III, Tech and Armour with a total value of $100,137 and $100,431 and outstanding unfunded commitments of $125,996 and $64,071, respectively. For the year ended December 31, 2017, the Company incurred $2,863 (2016: $2,874) in partnership fees associated with these investments.

**(b) Validus Holdings Entities**

Pursuant to reinsurance agreements with Talbot, an affiliate, the Company assumed net premiums earned of $771,730, incurred losses and loss expenses of $522,242 and policy acquisition costs of $331,163 during the year ended December 31, 2017 (2016: $804,952, $437,460 and $337,544, respectively). At December 31, 2017, the Company had deferred acquisition costs of $90,781, premiums receivable of $39,780 and funds withheld of $1,368,530 under these agreements (December 31, 2016: $99,055, $40,937 and $1,411,766, respectively). The Company also had outstanding reserves for losses and loss expenses of $1,150,306, unearned premiums of $464,617, reinsurance balances payable of $36,130 and accounts payable and accrued expenses of $578 under these agreements at December 31, 2017 (December 31, 2016: $1,056,588, $491,754, $18,012 and 704, respectively).

Pursuant to reinsurance agreements with AlphaCat, an affiliate, the Company ceded net premiums earned of $98,706, recovered losses and loss expenses of $109,993 and earned commissions of $11,527 (2016: $89,540, $35,544 and $10,733, respectively). At December 31, 2017, the Company had unearned commissions of $2,644, paid losses recoverable of $24,605, prepaid reinsurance of $20,803 and loss reserves recoverable of $124,099 under these agreements (December 31, 2016: $1,446, $nil, $12,849, and $41,110). The Company also had reinsurance balances payable of $40,775 at December 31, 2017 under these agreements (December 31, 2016: $26,497).

At December 31, 2017 and 2016, the Company held fixed maturity investments of $60,200 relating to the repurchase of principal amounts of Validus Holdings' 2007 Junior Subordinated Deferrable Debentures due 2037, which generated net investment income of $2,529 during the year ended December 31, 2017 (2016: $2,241). At December 31, 2017, accrued investment income on this investment was $121 (December 31, 2016: $105).

As discussed in Note 8, *"Fair value measurements,"* the Company held other investments representing shares of Validus Holdings with a fair value of $76,896 at December 31, 2017 (December 31, 2016: $90,154), which generated net investment income of $2,491 during the year ended December 31, 2017 (2016: $2,294). The change in unrealized losses on this investment were $(13,258) during the year ended December 31, 2017 (2016: gains of $14,290).

**(c) Other**

Certain shareholders of the Company and their affiliates, as well as employees of entities associated with directors and officers may have purchased insurance and/or reinsurance from the Company in the ordinary course of business. The Company does not believe these transactions to be material.

(Expressed in thousands of U.S. dollars, except share and per share amounts)

**22. Statutory and regulatory requirements**

The Company has operations which are subject to laws and regulations in the jurisdictions in which they operate, the most significant of which are Bermuda, the United States and Switzerland.

The Company's (re)insurance subsidiaries prepare their statutory financial statements in conformity with statutory accounting practices prescribed or permitted by the applicable local laws and relevant regulatory authority. The statutory financial statements may vary materially from statements prepared in accordance with U.S. GAAP.

The Company and its subsidiaries are required to maintain certain measures of solvency and liquidity which provide restrictions on declaring dividends and distributions. Statutory capital and surplus as at December 31, 2017 and 2016 and statutory net income for the years ended December 31, 2017 and 2016 for our (re)insurance subsidiaries based in our most significant regulatory jurisdictions were as follows:

| | Statutory Capital and Surplus | | | | Statutory Net Income (Loss) | |
|---|---|---|---|---|---|---|
| | Required | | Actual | | | |
| | December 31, | | December 31, | | Years Ended December 31, | |
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| Bermuda | $ 676,930 | $ 1,447,018 | 4,128,051 | 4,244,075 | $ 13,448 | $ 477,624 |
| United States | 120,512 | 78,342 | 376,178 | 416,746 | (7,968) | 7,795 |
| Switzerland | 315,000 | 267,000 | 846,152 | 700,776 | 39,570 | 30,231 |

During the year ended December 31, 2017, the Company paid dividends and made distributions to Validus Holdings, Ltd. from the Company of $111,000 and $115,000, respectively (2016: $nil and $290,000).

**(a) Bermuda**

The Company has three Bermuda-based insurance subsidiaries: Validus Reinsurance (Switzerland) Ltd. (Bermuda Branch), a Class 4 insurer; IPCRe Limited ("IPCRe"), a Class 3A insurer; and Mont Fort Re Ltd., a Class 3 insurer. Each of these Bermuda insurance subsidiaries is registered under the Insurance Act 1978 of Bermuda, amendments thereto and related regulations (the "Insurance Act"). The Company also has investments in two Bermuda based insurance affiliates which are licensed as Special Purpose Insurers ("SPIs") under the Insurance Act, AlphaCat Re 2011, Ltd. and AlphaCat Re 2012, Ltd.

The Company's Bermuda based insurance subsidiaries are required to maintain minimum statutory capital and surplus equal to the greater of a minimum solvency margin ("MSM") and the Enhanced Capital Requirement ("ECR") where applicable. The ECR is equal to the higher of the MSM or the Bermuda Solvency Capital Requirement ("BSCR") model or approved internal capital model. The BSCR for the relevant insurers for the year ended December 31, 2017 will not be filed with the Bermuda Monetary Authority ("BMA") until April 2018. As a result, the required statutory capital and surplus as at December 31, 2017, of $676,930 is based on the MSM of all relevant insurers, whereas the required statutory capital and surplus as at December 31, 2016 of $1,447,018 is based primarily on the December 31, 2016 ECR, which exceeded the December 31, 2016 MSM of $732,133.

Actual statutory capital and surplus includes capital held in support of FAL which is not available for distribution to the Company. For further details refer to Note 20, *"Commitments and contingencies."* Also included in actual statutory capital and surplus are debentures payable of $249,358 (December 31, 2016: $247,426), which the BMA approved as other fixed capital during April 2017. At December 31, 2017 and 2016, the actual statutory capital and surplus of the Bermuda based insurance subsidiaries exceeded the relevant regulatory requirements.

The ability of certain of these insurance subsidiaries to pay dividends to the Company is limited under Bermuda law and regulations. The Insurance Act provides that each of the Class 3A and 4 Bermuda subsidiaries may not declare or pay, in any financial year, dividends of more than 25% of its total statutory capital and surplus (as shown on its statutory balance sheet in relation to the previous financial year) unless it files with the BMA at least seven days prior to the payment, an affidavit signed by at least two directors and such insurance subsidiary's principal representative, stating that in their opinion such subsidiary will continue to satisfy the required margins following declaration of those dividends, however, there is no additional requirement for BMA approval.

In addition, before reducing its total statutory capital by 15% or more (as set out in its previous year's statutory financial statements) each of the Class 3A and Class 4 Bermuda insurance subsidiaries must make application to the BMA for permission to do so; such application shall consist of an affidavit signed by at least two directors and such insurance subsidiary's principal representative stating that in their opinion the proposed reduction in capital will not cause such subsidiaries to fail to meet its relevant margins, and such other information as the BMA may require. The Insurance Act permits each of the Class 3 insurers to declare or pay any dividends during any financial year so long as it does not cause the insurance subsidiary to fail to meet its relevant margins subject to the restrictions set out herein and other than in respect of IPCRe. Class 3 insurers, before reducing by 15% or more of its total statutory capital, as set out in its previous year's financial statements, are required to apply to the BMA for its approval and provide such information as the BMA may require.

As at December 31, 2017, the Company has the ability to distribute up to $1,482,231 (December 31, 2016: $1,506,194) of unrestricted net assets as dividend payments and/or return of capital to Validus Holdings without prior regulatory approval.

The Company's primary restrictions on net assets of insurance subsidiaries consist of regulatory requirements placed upon the regulated insurance subsidiaries to hold minimum amounts of total statutory capital and surplus and other than the restriction on IPCRe noted above, there were no other material restrictions on net assets in place as of December 31, 2017.

The Company maintains a branch office in Singapore. As the branch office is not considered a separate entity for regulatory purposes, the required and actual statutory capital and surplus amount includes amounts, as set out above, related to the applicable branch office. The branch office is subject to additional minimum capital or asset requirements in its country of domicile. At December 31, 2017 and 2016, the actual capital and assets for the branch exceeded the relevant local regulatory requirements.

**(b) United States**

The Company has three U.S. based insurance subsidiaries domiciled in New Hampshire: Western World Insurance Company, Tudor Insurance Company and Stratford Insurance Company, which are required to file financial statements prepared in accordance with statutory accounting practices prescribed or permitted by the New Hampshire State Insurance Department ("NHSID").

State insurance laws and regulations prescribe accounting practices for determining statutory net income and equity for insurance companies. In addition, state regulators may permit statutory accounting practices that differ from such prescribed practices. The Company's U.S. based insurance company subsidiaries did not use such permitted practices.

The Company's U.S. based insurance company subsidiaries are subject to certain Risk-Based Capital ("RBC") requirements as specified by the National Association of Insurance Commissioners. Under those requirements, the minimum amount of capital and surplus required to be maintained by a property/casualty insurance company is based on various risk factors. At December 31, 2017 and 2016, the Company's U.S. based insurance company subsidiaries met the RBC requirements.

New Hampshire insurance laws limit the amount of dividends Western World may pay to the Company in a 12-month period without the approval of the NHSID. These limitations are based on the lesser of: (i) a maximum of 10.0% of prior year end statutory surplus as determined under statutory accounting practices; or (ii) statutory net income, not including realized capital gains, for the 12-month period ending December 31, next preceding, but shall not include pro rata distributions of any class of the insurer's own securities. In determining whether a dividend or distribution is extraordinary, an insurer may carry forward net income from the previous two calendar years that has not already been paid out as dividends. This carry-forward is computed by taking the net income from the second and third preceding calendar years, not including realized capital gains, less dividends paid in the second and immediate preceding calendar years. As at December 31, 2017, the maximum dividend that may be paid to the Company by its U.S. based insurance subsidiaries without obtaining prior approval was $nil (December 31, 2016: $490). During the year ended December 31, 2017, our U.S. based insurance subsidiaries paid dividends to the Company of $15,500 (2016: $18,500).

**(c) Switzerland**

Validus Re Swiss is a société anonyme headquartered in Zurich, Switzerland. The conduct of reinsurance business by a company headquartered in Switzerland requires a license granted by the Swiss Financial Market Supervisory Authority ("FINMA"). Validus Re Swiss maintains a branch office in Bermuda, Validus Reinsurance (Switzerland) Ltd. (Bermuda Branch), a Class 4 insurer.

Required statutory capital and surplus is based on the Target Capital requirements calculated under the Swiss Solvency Test ("SST") and includes both Validus Re Swiss and its Bermuda branch. At December 31, 2017 and 2016, the actual capital and assets exceeded the relevant local regulatory requirements.

Validus Re Swiss is funded by equity in the form of paid in capital by shares and in share premium. Under Swiss corporate law as modified by insurance supervisory law, a non-life insurance company is obliged to contribute to statutory legal reserves a minimum of 20% of any annual profit up to 50% of statutory capital, being paid in share capital. Validus Re Swiss has been substantially funded by share premium. Share premium can be distributed to shareholders without being subject to withholding tax. However, the distribution of any special dividend to shareholders remains subject to the approval of FINMA which considers the maintenance of solvency and the interests of reinsureds and creditors.

Validus Reinsurance (Switzerland) Ltd. (Bermuda Branch) is exempt from filing an Annual Statutory Financial Return and Annual Capital and Solvency Return but is subject to the minimum required statutory capital and surplus requirements for Class 4 insurers and the SST. At December 31, 2017 and 2016, the branch was in compliance with all relevant regulatory requirements.

**23. Subsequent events**

The Company has completed its subsequent events evaluation for the period subsequent to the balance sheet date of December 31, 2017 to April 17, 2018, the date the consolidated financial statements were available to be issued.

***Merger Agreement***

On January 21, 2018, Validus Holdings entered into a definitive agreement and plan of merger (the "Merger Agreement") with AIG. The Merger Agreement provides that, subject to the satisfaction or waiver of certain conditions set forth therein, Validus Holdings and its related subsidiaries will merge with an existing AIG subsidiary in accordance with the Bermuda Companies Act (the "Merger"), with Validus Holdings surviving the Merger as a wholly-owned subsidiary of AIG.

The Merger is expected to close in mid-2018, subject to the approval of Validus Holdings' shareholders, regulatory approvals and other customary closing conditions. The Merger Agreement permits Validus Holdings to pay out regular quarterly cash dividends not to exceed $0.38 per common share, with its quarterly dividend for the second fiscal quarter for 2018 to be paid prior to the closing of the Merger even if such closing occurs prior to the regular record or payment date of such dividend.

Pursuant to the Merger Agreement, immediately prior to the effective time of the Merger, all common shares of Validus Holdings owned by the Company will automatically be canceled and shall cease to exist and be outstanding, with no consideration delivered in exchange nor any repayment of capital made in respect thereof. At December 31, 2017, the Company held shares of Validus Holdings which had a fair value of $76,896. Pursuant to the Merger Agreement, the Company is unable to sell its shares of Validus Holdings prior to the closing of the Merger. As such, either before or concurrent with the closing of the Merger, the value of the Company's investment in Validus Holdings will be reduced to $nil, with a corresponding reduction to shareholder's equity.