Consolidated Financial Statements of

GREENLIGHT CAPITAL RE, LTD.

December 31, 2018 and 2017

GREENLIGHT CAPITAL RE, LTD.

Table of Contents

	Page
Report of Independent Registered Public Accounting Firm (on the consolidated financial statements)	3
Report of Independent Registered Public Accounting Firm (on the internal control over financial reporting)	5
Report of Independent Registered Public Accounting Firm (on Solasglas Investments, LP)	7
Consolidated Balance Sheets	8
Consolidated Statements of Operations	9
Consolidated Statements of Shareholders’ Equity	10
Consolidated Statements of Cash Flows	11
Notes to the Consolidated Financial Statements	12
Schedule I – Summary of Investments – Other than Investments in Related Parties	64
Schedule II – Condensed Financial Information of Registrant	65
Schedule III – Supplementary Insurance Information	67
Schedule IV – Supplementary Reinsurance Information	67

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Greenlight Capital Re, Ltd.
Grand Cayman, Cayman Islands

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Greenlight Capital Re, Ltd. (the Company) and subsidiaries as of December 31, 2018 and 2017, the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and schedules (collectively referred to as the consolidated financial statements). In our opinion, based on our audits and the report of the other auditors, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018**,** in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated February 27, 2019 expressed an unqualified opinion thereon.

We did not audit the financial statements of Solasglas Investments, LP, an equity method investment of the Company, as of December 31, 2018 and for the period from September 1, 2018 (commencement of operations) to December 31, 2018. In the consolidated financial statements, the Company's investment in Solasglas Investments, LP as of December 31, 2018 was $235.6 million, and its equity in net loss of Solasglas Investments, LP was $60.6 million for the period from September 1, 2018 (commencement of operations) to December 31, 2018. The financial statements of Solasglas Investments, LP were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for Solasglas Investments, LP, is based solely on the report of the other auditors.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits and the report of the other auditors provide a reasonable basis for our opinion.

BDO USA, LLP

We have served as the Company's auditor since 2006.
February 27, 2019

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Greenlight Capital Re, Ltd.
Grand Cayman, Cayman Islands

Opinion on Internal Control over Financial Reporting

We have audited Greenlight Capital Re, Ltd.'s Company's (the Company's) internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company and subsidiaries as of December 31, 2018 and 2017, the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and schedules, and our report dated February 27, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Item 9A, Management's Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

BDO USA, LLP

February 27, 2019

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Report of Independent Registered Public Accounting Firm

The General Partner
Solasglas Investments, LP

Opinion on the Financial Statements

We have audited the statement of assets, liabilities and partners' capital of Solasglas Investments, LP (an equity method investee of Greenlight Capital Re, Ltd.) (the "Partnership"), including the condensed schedule of investments, as of December 31, 2018, and the related statements of operations, changes in partners' capital and cash flows for the period from September 1, 2018 (commencement of operations) to December 31, 2018, and the related notes (collectively referred to as the "financial statements") (not presented separately herein). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Partnership at December 31, 2018, and the results of its operations, changes in its partners' capital and its cash flows for the period from September 1, 2018 (commencement of operations) to December 31, 2018 in conformity with U.S. generally accepted accounting principles.

Basis of Opinion

These financial statements are the responsibility of the Partnership's management. Our responsibility is to express an opinion on the Partnership's financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Partnership in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB and 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 financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Ernst & Young Ltd.

We have served as the Partnership's auditor since 2018.
Grand Cayman, Cayman Islands
February 27, 2019

GREENLIGHT CAPITAL RE, LTD.
CONSOLIDATED BALANCE SHEETS

December 31, 2018 and 2017
(expressed in thousands of U.S. dollars, except per share and share amounts)

	2018	2017
Assets		
Investments		
Investment in related party investment fund, at fair value	$ 235,612	$ —
Debt instruments, trading, at fair value	—	7,180
Equity securities, trading, at fair value	36,908	1,203,672
Other investments	11,408	152,132
Total investments	283,928	1,362,984
Cash and cash equivalents	18,215	27,285
Restricted cash and cash equivalents	685,016	1,503,813
Financial contracts receivable, at fair value	—	12,893
Reinsurance balances receivable	300,251	301,762
Loss and loss adjustment expenses recoverable	43,705	29,459
Deferred acquisition costs, net	49,929	62,350
Unearned premiums ceded	24,981	25,120
Notes receivable, net	26,861	28,497
Other assets	2,559	3,230
Total assets	$ 1,435,445	$ 3,357,393
Liabilities and equity		
Liabilities		
Due to related party investment fund	$ 9,642	$ —
Securities sold, not yet purchased, at fair value	—	912,797
Financial contracts payable, at fair value	—	22,222
Due to prime brokers and other financial institutions	—	672,700
Loss and loss adjustment expense reserves	482,662	464,380
Unearned premium reserves	211,789	255,818
Reinsurance balances payable	139,218	144,058
Funds withheld	16,418	23,579
Other liabilities	5,067	10,413
Convertible senior notes payable, net of deferred costs	91,185	—
Total liabilities	955,981	2,505,967
Redeemable non-controlling interest in related party joint venture	1,692	7,169
Equity		
Preferred share capital (par value $0.10; authorized, 50,000,000; none issued)	—	—
Ordinary share capital (Class A: par value $0.10; authorized, 100,000,000; issued and outstanding, 30,130,214 (2017: 31,104,830): Class B: par value $0.10; authorized, 25,000,000; issued and outstanding, 6,254,715 (2017: 6,254,715))	3,638	3,736
Additional paid-in capital	499,726	503,316
Retained earnings (deficit)	(26,077)	324,272
Shareholders' equity attributable to Greenlight Capital Re, Ltd.	477,287	831,324
Non-controlling interest in related party joint venture	485	12,933
Total equity	477,772	844,257
Total liabilities, redeemable non-controlling interest and equity	$ 1,435,445	$ 3,357,393

The accompanying Notes to the Consolidated Financial Statements are an integral part of the Consolidated Financial Statements.

GREENLIGHT CAPITAL RE, LTD.
CONSOLIDATED STATEMENTS OF OPERATIONS

Years ended December 31, 2018, 2017 and 2016
(expressed in thousands of U.S. dollars, except per share and share amounts)

	2018	2017	2016
Revenues			
Gross premiums written	$ 567,531	$ 692,651	$ 536,072
Gross premiums ceded	(102,788)	(56,587)	(10,015)
Net premiums written	464,743	636,064	526,057
Change in net unearned premium reserves	43,620	(10,060)	(12,939)
Net premiums earned	508,363	626,004	513,118
Income (loss) from investment in related party investment fund [net of related party expenses of $3,100, $0 and $0, respectively]	(60,573)	—	—
Net investment income (loss) [net of related party expenses of $11,221, $19,863 and $24,543, respectively]	(262,533)	20,231	76,183
Other income (expense), net	(2,228)	(560)	(935)
Total revenues	183,029	645,675	588,366
Expenses			
Loss and loss adjustment expenses incurred, net	363,873	502,404	380,815
Acquisition costs, net	145,475	161,740	134,534
General and administrative expenses	25,173	26,356	25,808
Interest expense	2,505	—	—
Total expenses	537,026	690,500	541,157
Income (loss) before income tax	(353,997)	(44,825)	47,209
Income tax (expense) benefit	(332)	451	(509)
Net income (loss)	(354,329)	(44,374)	46,700
Loss (income) attributable to non-controlling interest in related party joint venture	4,275	(578)	(1,819)
Net income (loss) attributable to Greenlight Capital Re, Ltd.	$ (350,054)	$ (44,952)	$ 44,881
Earnings (loss) per share			
Basic	$ (9.74)	$ (1.21)	$ 1.20
Diluted	$ (9.74)	$ (1.21)	$ 1.20
Weighted average number of ordinary shares used in the determination of earnings and loss per share			
Basic	35,951,659	37,002,260	37,267,145
Diluted	35,951,659	37,002,260	37,340,018

The accompanying Notes to the Consolidated Financial Statements are an integral part of the Consolidated Financial Statements.

GREENLIGHT CAPITAL RE, LTD.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS’ EQUITY

Years ended December 31, 2018, 2017 and 2016
(expressed in thousands of U.S. dollars)

	Ordinary share capital	Additional paid-in capital	Retained earnings (deficit)	Shareholders’ equity attributable to Greenlight Capital Re, Ltd.	Non-controlling interest in joint venture	Total equity
Balance at December 31, 2015	$ 3,703	$ 496,401	$ 325,287	$ 825,391	$ 11,118	$ 836,509
Issue of Class A ordinary shares, net of forfeitures	34	—	—	34	—	34
Share-based compensation expense, net of forfeitures	—	3,936	—	3,936	—	3,936
Change in non-controlling interest in related party joint venture	—	—	—	—	443	443
Net income (loss) attributable to Greenlight Capital Re, Ltd.	—	—	44,881	44,881	—	44,881
Balance at December 31, 2016	$ 3,737	$ 500,337	$ 370,168	$ 874,242	$ 11,561	$ 885,803
Issue of Class A ordinary shares, net of forfeitures	13	—	—	13	—	13
Repurchase of Class A ordinary shares	(14)	(1,861)	(944)	(2,819)	—	(2,819)
Share-based compensation expense, net of forfeitures	—	4,840	—	4,840	—	4,840
Change in non-controlling interest in related party joint venture	—	—	—	—	1,372	1,372
Net income (loss) attributable to Greenlight Capital Re, Ltd.	—	—	(44,952)	(44,952)	—	(44,952)
Balance at December 31, 2017	$ 3,736	$ 503,316	$ 324,272	$ 831,324	$ 12,933	$ 844,257
Issue of Class A ordinary shares, net of forfeitures	20	—	—	20	—	20
Repurchase of Class A ordinary shares	(118)	(16,090)	(295)	(16,503)	—	(16,503)
Share-based compensation expense, net of forfeitures	—	4,604	—	4,604	—	4,604
Issuance of convertible notes	—	7,896	—	7,896	—	7,896
Change in non-controlling interest in related party joint venture	—	—	—	—	(12,448)	(12,448)
Net income (loss) attributable to Greenlight Capital Re, Ltd.	—	—	(350,054)	(350,054)	—	(350,054)
Balance at December 31, 2018	$ 3,638	$ 499,726	$ (26,077)	$ 477,287	$ 485	$ 477,772

The accompanying Notes to the Consolidated Financial Statements are an integral part of the Consolidated Financial Statements.

GREENLIGHT CAPITAL RE, LTD.
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years ended December 31, 2018, 2017 and 2016
(expressed in thousands of U.S. dollars)

	2018	2017	2016
Cash provided by (used in) operating activities			
Net income (loss)	$ (354,329)	$ (44,374)	$ 46,700
Adjustments to reconcile net income or loss to net cash provided by (used in) operating activities			
Loss (income) from investments in related party investment fund	60,573	—	—
Loss (income) from equity accounted investment	247	—	—
Net change in unrealized gains and losses on investments and financial contracts	32,597	41,444	(209,993)
Net realized (gains) losses on investments and financial contracts	236,887	(87,618)	113,836
Foreign exchange (gains) losses on investments	186	5,292	3,094
Share-based compensation expense, net of forfeitures	4,624	4,853	3,970
Amortization and interest expense	2,505	—	—
Depreciation expense	260	368	390
Net change in			
Reinsurance balances receivable	1,511	(82,636)	(31,186)
Loss and loss adjustment expenses recoverable	(14,246)	(26,755)	664
Deferred acquisition costs, net	12,421	(1,328)	(1,199)
Unearned premiums ceded	139	(22,743)	874
Other assets	411	705	2,171
Loss and loss adjustment expense reserves	18,282	157,739	644
Unearned premium reserves	(44,029)	33,291	10,573
Reinsurance balances payable	(4,840)	102,643	23,089
Funds withheld	(7,161)	17,652	(1,216)
Other liabilities	(5,346)	(4,114)	1,802
Net cash provided by (used in) operating activities	(59,308)	94,419	(35,787)
Investing activities			
Proceeds from redemptions from related party investment fund	96,635	—	—
Contributions to related party investment fund	(268,317)	—	—
Purchases of investments	(402,244)	(1,120,549)	(1,310,837)
Sales of investments, trading	1,002,374	1,036,665	1,470,118
Payments for financial contracts	(129,907)	(24,714)	(60,414)
Proceeds from financial contracts	44,596	82,789	20,426
Securities sold, not yet purchased	340,693	1,120,506	699,237
Dispositions of securities sold, not yet purchased	(844,379)	(1,253,176)	(792,970)
Change in due to prime brokers and other financial institutions	(672,700)	352,870	(76,623)
Change in notes receivable, net	1,636	5,237	(8,588)
Non-controlling interest contribution into (withdrawal from) related party joint venture, net	(13,650)	2,079	(7,756)
Net cash provided by (used in) investing activities	(845,263)	201,707	(67,407)
Financing activities			
Net proceeds from issuance of convertible senior notes payable, net of costs	96,576	—	—
Repurchase of Class A ordinary shares	(16,503)	(2,819)	—
Net cash provided by (used in) financing activities	80,073	(2,819)	—
Effect of foreign exchange rate changes on cash, cash equivalents and restricted cash	(3,369)	(4,718)	(3,048)
Net increase (decrease) in cash, cash equivalents and restricted cash	(827,867)	288,589	(106,242)
Cash, cash equivalents and restricted cash at beginning of the period (see Note 2)	1,531,098	1,242,509	1,348,751
Cash, cash equivalents and restricted cash at end of the period (see Note 2)	$ 703,231	$ 1,531,098	$ 1,242,509
Supplementary information			
Interest paid in cash	$ 11,088	$ 10,062	$ 7,823
Income tax paid in cash	4	—	—
Non-cash transfer of investments (Note 3)	125,008	—	—

The accompanying Notes to the Consolidated Financial Statements are an integral part of the Consolidated Financial Statements.

1. ORGANIZATION AND BASIS OF PRESENTATION

Greenlight Capital Re, Ltd. (“GLRE”) was incorporated as an exempted company under the Companies Law of the Cayman Islands on July 13, 2004. GLRE’s principal wholly-owned subsidiary, Greenlight Reinsurance, Ltd. (“Greenlight Re”), provides global specialty property and casualty reinsurance. Greenlight Re has a Class D insurer license issued in accordance with the terms of The Insurance Law, 2010 and underlying regulations thereto (the “Law”) and is subject to regulation by the Cayman Islands Monetary Authority (“CIMA”), in terms of the Law. Greenlight Re commenced underwriting in April 2006. Verdant Holding Company, Ltd. (“Verdant”), a wholly-owned subsidiary of GLRE, was incorporated in 2008 in the state of Delaware. During 2010, GLRE established Greenlight Reinsurance Ireland, Designated Activity Company (“GRIL”), a wholly-owned reinsurance subsidiary based in Dublin, Ireland. GRIL is authorized as a non-life reinsurance undertaking in accordance with the provisions of the European Union (Insurance and Reinsurance) Regulations 2015 (“Irish Regulations”). GRIL provides multi-line property and casualty reinsurance capacity to the European broker market and provides GLRE with an additional platform to serve clients located in Europe and North America. As used herein, the “Company” refers collectively to GLRE and its consolidated subsidiaries.

The Company and its reinsurance subsidiaries are party to a joint venture agreement (the “venture agreement”) with DME Advisors, LP (“DME Advisors”) and DME Advisors LLC (“DME”) under which the Company, its reinsurance subsidiaries and DME are participants in a joint venture (the “Joint Venture”) for the purpose of managing certain jointly held assets. The Joint Venture created through the venture agreement has been consolidated in accordance with ASC 810, Consolidation (ASC 810). The Company has recorded DME’s minority interests as “Redeemable non-controlling interests in related party joint venture” and “Non-controlling interests in related party joint venture” in the Company’s consolidated balance sheets. DME and DME Advisors are related to the Company and each is an affiliate of David Einhorn, Chairman of the Company’s Board of Directors.

On September 1, 2018, the Company entered into an amended and restated exempted limited partnership agreement (the “SILP LPA”) of Solasglas Investments, LP (“SILP”), with DME Advisors II, LLC (“DME II”), as General Partner, Greenlight Re, GRIL and the initial limited partner (each, a “Partner”). The SILP LPA, in conjunction with a participation agreement, replaced the venture agreement and assigned and/or transferred Greenlight Re’s and GRIL’s invested assets in the Joint Venture to SILP. The Joint Venture was terminated on January 2, 2019 by which date all assets were transferred to SILP (see Note 3 for details).

The Class A ordinary shares of GLRE are listed on Nasdaq Global Select Market under the symbol “GLRE”.

These consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”). The consolidated financial statements include the accounts of GLRE and the consolidated financial statements of its wholly owned subsidiaries, Greenlight Re, GRIL, Verdant and the Joint Venture. All significant intercompany transactions and balances have been eliminated on consolidation.

Reclassifications and changes in description

Changes in the consolidated statements of operations and statements of cash flows

The Company’s consolidated statements of operations previously used the caption “Net income (loss) including non-controlling interest” to represent the net income (loss) before deducting non-controlling interest. Similarly, the caption “Net income (loss)” was used to represent the net income (loss) available to the Company after deducting non-controlling interest. For the year ended December 31, 2018, the Company amended the captions as follows:

- The caption “Net income (loss) including non-controlling interest” was renamed “Net income (loss)”.
- The caption “Net income (loss)” was renamed “Net income (loss) attributable to Greenlight Capital Re, Ltd.”

In addition, the Company’s consolidated statements of cash flows previously started with net income (loss) excluding income (loss) from non-controlling interest. The net income (loss) from non-controlling interest was presented as a reconciling item to the net cash flow from operating activities. For the year ended December 31, 2018, the Company amended the presentation to start with “Net income (loss)” which includes income from non-controlling interest. The prior period comparative has been reclassified to conform to the current period presentation. The reclassification had no impact on the Company’s results of operations, financial position, earnings (loss) per share or net cash provided by (used in) operating activities.

The Company adopted ASU 2016-18, “Statements of Cash Flows - Restricted Cash (Topic 230)” during 2018 which resulted in reclassification of comparative periods presented in the Company’s consolidated statements of cash flows. Please refer to “*Recently Issued Accounting Standards Adopted”* in Note 2 for further details.

Other reclassification

Effective from the second quarter of 2018, contracts that cover more than one line of business are grouped as “multi-line”. The prior period comparative information in Note 17 has been reclassified to conform to the current period presentation. There was no material impact on the presentation of the Company’s results of operations or financial condition as a result of this reclassification.

2. SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

The preparation of 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 consolidated financial statements and the reported amounts of income and expenses during the period. Actual results could differ from these estimates.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and certain short-term, highly liquid investments with original maturity dates of three months or less.

Restricted Cash and Cash Equivalents

The Company maintains cash in segregated accounts with prime brokers and derivative counterparties. The amount of restricted cash held by prime brokers is primarily used to support the liabilities created from securities sold, not yet purchased and derivatives.

Restricted cash and cash equivalent balances are held to collateralize regulatory trusts and letters of credit issued to cedents (see Notes 5, 7 and 16). The amount of cash encumbered varies depending on the collateral required by those cedents.

The following table reconciles the cash, cash equivalents, and restricted cash reported within the consolidated balance sheets to the total presented in the consolidated statements of cash flows:

	December 31, 2018	December 31, 2017
	($ in thousands)	
Cash and cash equivalents	$ 18,215	$ 27,285
Restricted cash and cash equivalents	685,016	1,503,813
Total cash, cash equivalents and restricted cash presented in the consolidated statements of cash flows	$ 703,231	$ 1,531,098

Premium Revenue Recognition

The Company writes excess of loss contracts and quota share contracts, and estimates the ultimate premiums for the contract period. These estimates are based on information received from the ceding companies and actuarial pricing models used by the Company. For excess of loss contracts, the total ultimate estimated premiums are recorded as premiums written at the inception of the contract. For quota share contracts, the premiums are recorded as written in the same periods in which the underlying insurance contracts are written, and are based on cession statements from cedents. These statements are typically received monthly or quarterly depending on the terms specified in each contract. For any reporting lag, premiums written are estimated based on the portion of the ultimate estimated premiums relating to the risks underwritten during the lag period.

Premium estimates are reviewed by management at least quarterly. Such review includes a comparison of actual reported premiums to expected ultimate premiums along with a review of the aging and collection of premiums. Based on management's review, the appropriateness of the premium estimates is evaluated, and any adjustments to these estimates are recorded in the period in which they are determined. Changes in premium estimates, including premium receivable on both excess of loss and quota share contracts, are not unusual and may result in significant adjustments in any period. A significant portion of amounts included in the caption "Reinsurance balances receivable" in the Company's consolidated balance sheets represent estimated premiums written, net of commissions and brokerage, and are not currently due based on the terms of the underlying contracts. Additional premiums due on a contract that has no remaining coverage period are earned in full when written.

Certain contracts allow for reinstatement premiums in the event of a loss. Reinstatement premiums are written and earned when a triggering loss event occurs.

Certain contracts may provide for a penalty to be paid if the contract is terminated and canceled prior to its expiration. Cancellation penalties are recognized in the period the notice of cancellation is received and are recorded in the Company's consolidated statements of operations under the caption "Other income (expense), net".

Premiums written are generally recognized as earned over the contract period in proportion to the risk covered. Unearned premiums represent the unexpired portion of reinsurance provided.

Reinsurance Premiums Ceded

The Company reduces the risk of future losses on business assumed by reinsuring certain risks and exposures with other reinsurers (retrocessionaires). The Company remains liable to the extent that any retrocessionaire fails to meet its obligations and to the extent the Company does not hold sufficient security for their unpaid obligations.

Ceded premiums are written during the period in which the risks incept and the associated expense is recognized over the contract period in proportion to the protection provided. Unearned premiums ceded represent the unexpired portion of reinsurance obtained.

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, taxes and brokerage expenses. Acquisition costs incurred on reinsurance assumed 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 associated unearned premiums and investment income, a premium deficiency is determined to exist. In this event, deferred acquisition costs are written off 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. As of December 31, 2018, $8.5 million (2017: $11.9 million) of profit commission reserves were included in the caption "Reinsurance balances payable" in the Company's consolidated balance sheets. For the year ended December 31, 2018, $18.2

million, (2017: $2.0 million, 2016: $6.5 million) of net profit commission expense was included in the caption “Acquisition costs” in the Company’s consolidated statements of operations.

Funds Withheld

Funds withheld represent reinsurance balances retained as collateral by the Company on retroceded contracts. Any interest expense that the Company incurs while these funds are withheld are included under the caption “Net investment income (loss)” in the consolidated statements of operations.

Loss and Loss Adjustment Expense Reserves and Recoverable

The Company’s loss and loss adjustment expense reserves are composed of:

- case reserves resulting from claims notified to the Company by its clients; and
- reserves for estimated loss and loss adjustment expenses that have been incurred by insureds and reinsureds but not yet reported to the insurer or reinsurer, including unknown future developments on loss and loss adjustment expenses which are known to the insurer or reinsurer).

These estimated ultimate reserves are based on the Company’s own actuarial estimates derived from reports received from ceding companies, industry data and historical experience. These estimates are reviewed by the Company’s reserving committee at least quarterly and adjusted as necessary. Since reserves are estimates, the final settlement of losses may vary from the reserves established and any adjustments to the estimates, which may be material, are recorded in the period they are determined.

Loss estimates are based upon actuarial and statistical projections, an assessment of currently available data, predictions of future developments, estimates of future trends and other factors. The final settlement of losses may vary, perhaps materially, from the reserves recorded. All adjustments to the estimates are recorded in the period in which they are determined. U.S. GAAP does not permit establishing loss reserves, which include case reserves and IBNR loss reserves, until the occurrence of an event which may give rise to a claim. As a result, only loss reserves applicable to losses incurred up to the reporting date are established, with no allowance for the establishment of loss reserves to account for expected future loss events.

Loss and loss adjustment expenses recoverable represent the amounts due from retrocessionaires for unpaid loss and loss adjustment expenses on retrocession agreements. Ceded losses incurred but not reported are estimated based on the Company’s actuarial estimates. These estimates are reviewed periodically and adjusted when deemed necessary. The Company may ultimately be unable to recover the loss and loss adjustment expense recoverable amounts due to the retrocessionaires’ inability to pay. The Company regularly evaluates the financial condition of its retrocessionaires and records provisions for uncollectible reinsurance expenses recoverable when recovery is no longer probable.

For natural peril exposed business, loss reserves are generally established based on loss payments and case reserves reported by clients when, and if, received. Estimates for IBNR losses are added to the case reserves as the Company deems appropriate. To establish IBNR loss estimates, the Company uses estimates communicated by ceding companies, industry data and information, knowledge of the business written and management’s judgment.

For all non-natural peril business, initial reserves for each individual contract are determined on the basis of a combination of: (i) the pricing analysis of the expected loss and loss expense ratio performed prior to the contract being bound; (ii) the underwriter’s detailed knowledge of the cedent, its operations and future business plans; and (iii) the professional judgment and recommendation of the Chief Actuary. In the pricing analysis, the Company utilizes information both from the individual client and from industry data. This information typically includes, but is not limited to, data related to premiums, losses, exposure, business mix, industry performance and associated trends covering as much history as deemed appropriate. The level of detail within the data obtained varies greatly depending on the underlying contract, line of business, client and/or coverage provided. In all cases, the Company requests each client to provide data for each reporting period, which, depending on the contract, could be on a monthly or quarterly basis. The exact data reporting requirements are specified in the terms and conditions of each contract. Where practical, historical reserving data that is received from a client is compared to publicly available financial statements of the client to identify, confirm and monitor the accuracy and completeness of the data.

Generally, the Company obtains regular updates of premium and loss related information for the current and historical periods, which are utilized to update the initial expected loss and loss expense ratio. There may be a time lag from when claims are reported by the underlying insured to the Company's cedent and subsequently when the cedent reports the claims to the Company. This time lag may impact the Company's loss reserve estimates from period to period. Client reports have pre-determined due dates (for example, fifteen days after each month end). As a result, the time lag in the client's reporting depends upon the terms of the specific contract. The timing of the reporting requirements is designed so that the Company receives premium and loss information as soon as practicable once the client has closed its books. Accordingly, there should be a short lag in such reporting. Additionally, most of the contracts that have the potential for large single event losses have provisions that such loss notifications are provided to the Company immediately upon the occurrence of an event. Once the updated information is received, the Company uses a variety of standard actuarial methods for its analysis each quarter. Such methods may include the following:

- ***Paid Loss Development Method.*** Ultimate losses are estimated by calculating past paid loss development factors and applying them to exposure periods with further expected paid loss development. The paid loss development method assumes that losses are paid in a consistent pattern. It provides an objective test of reported loss projections because paid losses contain no reserve estimates.
- ***Reported Loss Development Method.*** Ultimate losses are estimated by calculating past reported loss development factors and applying them to exposure periods with further expected reported loss development. Since reported losses include payments and case reserves, changes in both of these amounts are incorporated in this method.
- ***Expected Loss Ratio Method.*** Ultimate losses are estimated by multiplying earned premiums by an expected loss ratio. The expected loss ratio is selected using industry data, historical company data and actuarial professional judgment. This method is typically used for lines of business and contracts where there are no historical losses or where past loss experience is not considered applicable to the current period.
- ***Bornhuetter-Ferguson Paid Loss Method.*** Ultimate losses are estimated by modifying expected loss ratios to the extent that paid losses experienced to date differ from what would have been expected to have been paid based upon the selected paid loss development pattern. This method avoids some of the distortions that could result from a large development factor being applied to a small base of paid losses to calculate ultimate losses.
- ***Bornhuetter-Ferguson Reported Loss Method.*** Ultimate losses are estimated by modifying expected loss ratios to the extent reported losses experienced to date differ from what would have been expected to have been reported based upon the selected reported loss development pattern. This method avoids some of the distortions that could result from a large development factor being applied to a small base of reported losses to calculate ultimate losses.
- ***Frequency / Severity Method.*** Ultimate losses are estimated under this method by multiplying the ultimate number of claims (i.e. the frequency multiplied by the exposure base on which the frequency has been determined), by the estimated ultimate average cost per claim (i.e. the severity). This approach enables trends and patterns in the rates of claims emergence (i.e. reporting) and settlement (i.e. closure), as well as in the average cost of claims, to be analyzed separately.

In addition, the Company may supplement its analysis with other reserving methodologies that are deemed to be relevant to specific contracts.

For each contract, the Company utilizes reserving methodologies that are deemed appropriate to calculate a best, or "point," estimate of reserves. The decision as to whether to use a single methodology or a combination of multiple methodologies depends upon the segment of the portfolio being analyzed and the judgment of the actuaries. The Company's reserving methodology does not require a fixed weighting of the various methods used. Certain methods are considered more appropriate than others depending on the type, structure, age, maturity and duration of the expected losses on the contract. For example, the ultimate incurred loss for contracts that are relatively new (and therefore have experienced little paid loss development) may be more appropriately estimated using a Bornhuetter-Ferguson reported loss method than a paid loss development method.

The Company's gross aggregate reserves are the sum of the point estimate reserves of all portfolio exposures. Generally, IBNR loss reserves are calculated by estimating the ultimate incurred losses at any point in time and subtracting cumulative paid claims and case reserves. Each quarter, the Company's reserving committee, which is led by the Chief Actuary, meets to assess the adequacy of our loss reserves based on the reserve analysis and recommendations prepared by the Company's reserving department. The reserving committee reviews, discusses and puts forward a recommendation as to what the booked loss reserves should be for the Company for approval to the Audit Committee.

Additionally, an independent third-party actuarial firm performs a quarterly reserve review and annually opines on the reasonableness and adequacy of the aggregate loss reserves. The Company provides the third-party actuarial firm with its pricing models, reserving analysis and any other data. Additionally, the actuarial firm may inquire as to the various assumptions and estimates used in the reserving analysis. The actuarial firm independently creates its own reserving models based on industry loss information, augmented by specific client loss information as well as its own independent assumptions and estimates. Based on various reserving methodologies that the actuarial firm considers appropriate, it creates a loss reserve estimate for each segment in the portfolio and recommends an aggregate loss reserve, including IBNR. In the event of material differences between the Company's aggregated booked reserves and the actuarial firm's recommended reserves, the reserving committee and Audit Committee would be notified, with the reserves adjusted as deemed appropriate. To date there have been no material differences resulting from the external actuary’s reviews requiring adjustments to the Company’s booked reserves.

We do not typically experience significant claims processing backlogs, although such backlogs may occur following a major catastrophic event. At December 31, 2018 and 2017, we did not have a significant backlog in our claims processing.

There were no significant changes in the actuarial methodology or assumptions relating to the Company’s loss and loss adjustment expense reserves during the year ended December 31, 2018.

Notes Receivable

Notes receivable represent promissory notes receivable from third parties. These notes are recorded at cost plus accrued interest, if any, which approximates the fair value. Interest income and realized gains or losses on sale of notes receivable are included in the caption “Net investment income (loss)” in the consolidated statements of operations.

The Company regularly reviews all notes receivable individually for impairment and records valuation allowance provisions for uncollectible and non-performing notes. The Company places notes on non-accrual status when the recorded value of the note is not considered impaired but there is uncertainty as to the collection of interest in accordance with the terms of the note. For notes receivable placed on non-accrual status, the notes are presented excluding any accrued interest amount. The Company resumes the accrual of interest on a note when none of the principal or interest remains past due, and the Company expects to collect the remaining contractual principal and interest. Interest collected on notes that are placed on non-accrual status is treated on a cash basis and recorded as interest income when collected, provided that the recorded value of the note is deemed to be fully collectible. Where doubt exists as to the collectability of the remaining recorded value of the notes placed on non-accrual status, any payments received are applied to reduce the recorded value of the notes.

At December 31, 2018, $9.8 million of notes receivable (net of any valuation allowance) were on non-accrual status (2017: $14.4 million) and payments received were applied to reduce the recorded value of the notes.

At December 31, 2018 and 2017, $0.2 million and $0.1 million, respectively, of accrued interest was included in the caption “Notes receivable” in the Company’s consolidated balance sheets. Based on management’s assessment, the recorded values of the notes receivable, net of valuation allowance, at December 31, 2018 and 2017, were assessed to be fully collectible.

Deposit Assets and Liabilities

The Company applies deposit accounting to reinsurance contracts that do not transfer sufficient insurance risk to merit reinsurance accounting. Under deposit accounting, an asset or liability is recognized based on the consideration paid or received. The deposit asset or liability balance is subsequently adjusted using the interest method with a corresponding income or expense recorded in the consolidated statements of income as other income or expense. The Company’s deposit assets and liabilities are recorded in the consolidated balance sheets in the caption “Reinsurance balances receivable” and “Reinsurance balances payable”, respectively. At December 31, 2018, deposit assets and deposit liabilities were $11.9 million and $52.9 million, respectively (2017: $19.4 million and $28.1 million, respectively). For the year ended December 31, 2018, interest income and expense on deposit accounted contracts was $1.5 million and $1.2 million, respectively (2017: interest income and expense of $0.2 million and $0.6 million, respectively).

Equity Method Accounted Investments

Investee companies that are not consolidated, but over which the Company exercises significant influence, are accounted for under the equity method of accounting. Whether the Company exercises significant influence with respect to an investee depends on an evaluation of several factors including, among others, representation on the investee company's board of directors and ownership level, which is generally a 20% to 50% interest in the voting securities of the investee company. Under the equity method of accounting, an investee company's accounts are not reflected within the Company's consolidated balance sheets and statements of operations; however, the Company's share of the earnings or losses of the investee company is reflected in the caption ''Net investment income (loss)'' in the Consolidated statements of operations. The Company's carrying value in an equity method investee company is reflected in the caption ''Other investments'' in the Company's consolidated balance sheets.

When the Company's carrying value in an equity method investee company is reduced to zero, no further losses are recorded in the Company's consolidated financial statements unless the Company guaranteed the obligations of the investee company or has committed additional funding (see Notes 3 and 4).

Variable Interest Entities

The Company accounts for the investments it makes in certain legal entities in which equity investors do not have (1) sufficient equity at risk for the legal entity to finance its activities without additional subordinated financial support, or (2) as a group, the holders of the equity investment at risk do not have either the power, through voting or similar rights, to direct the activities of the legal entity that most significantly impact the entity's economic performance, or (3) the obligation to absorb the expected losses of the legal entity or the right to receive expected residual returns of the legal entity. These legal entities are referred to as “variable interest entities” or “VIEs.”

The Company would consolidate the results of any such entity in which it determined that it had a controlling financial interest. The Company would have a “controlling financial interest” in such an entity if the Company had both the power to direct the activities that most significantly affect the VIE's economic performance and the obligation to absorb the losses of, or right to receive benefits from, the VIE that could be potentially significant to the VIE. On a quarterly basis, the Company reassesses whether it has a controlling financial interest in any such entities.

Financial Instruments

The Company invests in debt instruments and equity securities that are classified as “trading securities” and are carried at fair value.

The Company purchases “other investments” which may include investments in private and unlisted equity securities, limited partnerships and commodities, all of which are carried at fair value.

For securities classified as “trading securities” and “other investments”, any realized and unrealized gains or losses are determined on the basis of the specific identification method (by reference to cost or amortized cost, as appropriate) and included in the caption “Net investment income (loss)” in the Company's consolidated statements of operations.

Interest income and interest expense are recorded on an accrual basis. Dividend income and expense are recorded on the ex-dividend date. “Ex-dividend” indicates that the quoted price of a share of stock excludes the value of a declared dividend. Investors purchasing shares between the declaration and ex-dividend dates are entitled to receive the dividend, whereas investors purchasing shares on or after the ex-dividend date are not entitled to the dividend.

Derivative Financial Instruments

The Company enters into financial contracts with counterparties as part of its investment strategy. Financial contracts, which include total return swaps, credit default swaps (“CDS”), futures, options, currency forwards and other derivative instruments, are recorded at their fair values with any changes in unrealized gains and losses included in the caption “Net investment income (loss)” in the Company’s consolidated statements of operations. The caption “Financial contracts receivable” in the Company’s consolidated balance sheets represents derivative contracts whereby, based upon the contract’s current fair value, the Company will be entitled to receive payments upon settlement of the contract. The caption “Financial contracts payable” represents derivative contracts whereby, based upon each contract’s current fair value, the Company will be obligated to make payments upon settlement of the contract.

The Company’s derivatives do not qualify as hedges for financial reporting purposes and are recorded in the consolidated balance sheets on a gross basis and not offset against any collateral pledged or received. Pursuant to International Swaps and Derivatives Association (“ISDA”) master agreements, securities lending agreements and other agreements, the Company and its counterparties typically have the ability to net certain payments owed to each other in specified circumstances. In addition, in the event a party to one of the ISDA master agreements, securities lending agreements or other agreements defaults, or a transaction is otherwise subject to termination, the non-defaulting party generally has the right to set off outstanding balances due from the defaulting party against payments owed to the defaulting party or collateral held by the non-defaulting party.

Additionally. the Company may, from time to time, enter into underwriting-related derivatives including industry loss warranty (“ILW”) contracts.

Transfer of Financial Assets

The Company accounts for transfers of financial assets as sales when it has surrendered control over the related assets. Whether control has been relinquished requires, among other things, an evaluation of relevant legal considerations and an assessment of the nature and extent of the Company’s continuing involvement with the assets transferred. Gains and losses stemming from transfers reported as sales, if any, are included as realized gains (losses) within the caption “Net investment income (loss)” in the accompanying consolidated statements of operations.

In instances where a transfer of financial assets does not qualify for sale accounting, the transaction is accounted for as a collateralized borrowing. Accordingly, the related assets remain on the Company’s consolidated balance sheets and continue to be reported and accounted for as if the transfer had not occurred (see Notes 3 and 4).

Share-Based Compensation

The Company has established a stock incentive plan for directors, employees and consultants.

The Company recognizes share-based compensation costs on the basis of the fair value at the grant date of the award. The Company measures compensation for restricted shares and restricted stock units (“RSUs”) based on the price of the Company’s common shares at the grant date. For restricted shares and RSUs with both service and performance vesting conditions, the expense is recognized based on management’s estimate of the probability of the performance conditions being achieved based on historical results and expectations of future results. If the performance conditions are expected to be met, the expense is attributed to the period for which the requisite service has been rendered. For restricted shares and RSUs with only service vesting conditions, the expense is recognized on a straight line basis over the vesting period, net of any estimated or expected forfeitures.

The forfeiture rate is estimated based on the Company’s historical actual forfeitures relating to restricted shares and RSUs granted to employees. The forfeiture rate is reviewed annually and adjusted as necessary. No forfeiture rate is used for restricted shares granted to directors which vest over a twelve-month period.

Determining the fair value of share purchase options at the grant date requires significant estimation and judgment. The Company uses the Black-Scholes option pricing model to assist in the calculation of fair value for share purchase options. The model requires estimation of various inputs such as estimated term, forfeiture and dividend rates and expected volatility. In determining the grant date fair value, the Company uses the full ten-year life of the options as the estimated term, and assumes no forfeitures and no dividends paid during the life of the options. The estimate of expected volatility is based on the daily historical trading data of the Company’s Class A ordinary shares from the date that these shares commenced trading (May 24, 2007) to the grant date.

For share purchase options issued under the employee stock incentive plan, the compensation cost is calculated and recognized over the vesting periods on a graded vesting basis (see Note 12).

Convertible Notes

The Company has determined that the senior convertible notes' cash conversion option represents an embedded derivative, which has therefore been bifurcated from the underlying contract for financial reporting purposes. For the debt component, the Company recorded a liability equivalent to the present value of comparable debt without the conversion features at the time of issuance. The remainder of the proceeds, which represented the embedded derivative, were included in additional paid-in capital, a component of shareholders' equity.

Costs incurred in issuing the convertible notes consisted primarily of underwriting, legal, accounting and printing fees. The Company allocated the costs associated with the debt and derivative components ratably to the liability and shareholders' equity balances, respectively. The debt-related portion of these costs has been capitalized and deducted from the principal of senior convertible notes payable in the Company's consolidated balance sheets. These costs are amortized over the term of the debt and are included in the caption "Interest expense" in the Company's consolidated statements of operations. The issuance costs allocated to the embedded derivative have been deducted from additional paid-in capital.

Foreign Exchange

The reporting and functional currency of the Company and all its subsidiaries is the U.S. dollar. Transactions in foreign currencies are recorded in U.S. dollars at the exchange rates in effect on the transaction date. Monetary assets and liabilities in foreign currencies at the balance sheet date are converted at the exchange rate in effect at the balance sheet date and exchange gains and losses, if any, are included in the caption "Other income (expense), net" in the Company's consolidated statements of operations.

Other Assets

Other assets consist primarily of prepaid expenses, fixed assets, other receivables and deferred tax assets.

Other Liabilities

Other liabilities consist primarily of employee bonus accruals. At December 31, 2018, other liabilities included estimated accrued bonus of $3.3 million (2017: $6.4 million). Under the Company's bonus program, the majority of employees' target bonus consists of two components: a discretionary component based on a qualitative assessment of such employee's performance and a quantitative component based on the return on deployed equity (''RODE") for each underwriting year relating to reinsurance operations. The qualitative portion of an employee's annual bonus is accrued at each employee's target amount, which may differ significantly from the actual amount approved and awarded annually by the Compensation Committee. The quantitative portion of each employee's annual bonus is accrued based on the expected RODE for each underwriting year and adjusted for changes in the expected RODE and actual investment return each quarter until all losses are settled and the underwriting year is declared closed. The actual quantitative bonus, which requires the approval of the Compensation Committee, is paid in annual installments of three to five years from the end of the year in which the business was underwritten. Any further changes are incorporated into the following open underwriting year. The expected RODE calculation utilizes proprietary models which require significant estimation and judgment. Actual RODE may vary significantly from the RODE initially calculated and any adjustments to the quantitative bonus estimates, which may be material, are recorded in the period in which they are determined.

Also included in the caption "Other liabilities" are accruals for professional fees and other general expenses.

Comprehensive Income (Loss)

The Company has no comprehensive income or loss, other than the net income or loss disclosed in the consolidated statements of operations.

Earnings (Loss) Per Share

The Company treats its unvested restricted stock awards, which contain non-forfeitable rights to dividends or dividend equivalents, whether paid or unpaid, as "participating securities." Basic earnings (loss) per share is calculated on the basis of the weighted average number of common shares and participating securities outstanding during the period. Diluted earnings (or loss) per share includes the dilutive effect of the following:

- RSUs issued that would convert to common shares upon vesting;
- additional potential common shares issuable when stock options are exercised, determined using the treasury stock method; and
- those common shares with the potential to be issued by virtue of convertible debt and other such convertible instruments, determined using the treasury stock method.

Diluted earnings (or loss) per share contemplates a conversion to common shares of all convertible instruments only if they are dilutive in nature with regards to earnings per share. In the event of a net loss, all RSUs, stock options outstanding, convertible debt and participating securities are excluded from the calculation of both basic and diluted loss per share as their inclusion would be anti-dilutive.

The table below presents the shares outstanding for the purposes of its calculation of earnings (loss) per share for the years ended December 31, 2018, 2017 and 2016:

	Year ended December 31		
	2018	**2017**	**2016**
Weighted average shares outstanding - basic	35,951,659	37,002,260	37,267,145
Effect of dilutive employee and director share-based awards	—	—	72,873
Weighted average shares outstanding - diluted	35,951,659	37,002,260	37,340,018
Anti-dilutive stock options outstanding	935,627	358,741	435,991
Participating securities excluded from calculation of loss per share	432,457	331,510	—

Taxation

Under current Cayman Islands law, no corporate entity, including GLRE and Greenlight Re, is obligated to pay taxes in the Cayman Islands on either income or capital gains. The Company has an undertaking from the Governor-in-Cabinet of the Cayman Islands, pursuant to the provisions of the Tax Concessions Law, as amended, that, in the event that the Cayman Islands enacts any legislation that imposes tax on profits, income, gains or appreciations, or any tax in the nature of estate duty or inheritance tax, such tax will not be applicable to GLRE, Greenlight Re nor their respective operations, or to the Class A or Class B ordinary shares or related obligations, until February 1, 2025.

Verdant is incorporated in Delaware and therefore is subject to taxes in accordance with the U.S. federal rates and regulations prescribed by the U.S. Internal Revenue Service ("IRS"). Verdant's taxable income is generally expected to be taxed at a marginal rate of 21% (2017: 21%). Verdant's tax years 2014 and beyond remain open and subject to examination by the IRS.

GRIL is incorporated in Ireland and therefore is subject to the Irish corporation tax rate of 12.5% on its trading income, and 25% on its non-trading income, if any.

Any deferred tax asset is evaluated for recovery and a valuation allowance is recorded to the extent that the Company considers it more likely than not that all or a portion of the deferred tax asset will not be realized in the future. Other than the evaluation of a valuation allowance for deferred tax assets, the Company has not taken any income tax positions that are subject to significant uncertainty that is reasonably likely to have a material impact on the Company.

Segment Information

The Company manages its business on the basis of one operating segment, Property and Casualty Reinsurance.

Recent Accounting Pronouncements

Recently Issued Accounting Standards Adopted

In February 2018, the FASB issued ASU 2018-03, “Technical Corrections and Improvements to Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities” (“ASU 2018-03”). This guidance made targeted improvements to address certain aspects of the recognition, measurement, presentation, and disclosure of financial instruments. The Company adopted ASU 2018-03 during 2018. There was no material impact on the Company’s results of operations or financial condition upon adoption of the new standard.

In November 2016, the FASB issued ASU 2016-18, “Statements of Cash Flows - Restricted Cash (Topic 230)” (“ASU 2016-18”) to address diversity in practice that exists in the classification and presentation of changes in restricted cash on the statement of cash flows. ASU 2016-18 requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. The Company adopted ASU 2016-18 during 2018 and consequently the Company’s restricted cash and restricted cash equivalents are now included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the consolidated statements of cash flows. For comparative purposes, amounts in the prior years have been reclassified to conform to current year presentations. There was no material impact on the Company’s results of operations or financial condition upon adoption of the new standard.

In January 2016, the FASB issued ASU 2016-01 "Financial Instruments - Overall (Subtopic 825-10). Recognition and Measurement of Financial Assets and Financial Liabilities” (“ASU 2016-01”) in order to enhance the reporting model for financial instruments to provide users of financial statements with more decision-useful information. ASU 2016-01 addresses certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The Company adopted ASU 2016-01 during 2018. There was no material impact on the Company’s results of operations or financial condition upon adoption of the new standard.

The FASB has issued ASU No. 2014-09, “Revenue from Contracts with Customers”, and related amendments, ASU 2015-14, ASU 2016-10, ASU 2016-12, ASU 2016-20, ASU 2017-05 and ASU 2017-13, (collectively, “Topic 606”). Topic 606 creates a new comprehensive revenue recognition standard that will serve as a single source of revenue guidance for all companies that either enter into contracts with customers to transfer goods or services or enter into contracts for the transfer of non-financial assets, unless those contracts are within the scope of other standards, such as insurance contracts. Topic 606 became effective for annual periods beginning after December 15, 2017, and interim periods within those fiscal years. The Company adopted Topic 606 during 2018, and as the Company’s revenues generally relate to reinsurance contracts and investment income, there was no material impact on the Company’s results of operations or financial condition upon adoption of the new standard.

Recently Issued Accounting Standards Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, “Leases (Topic 842)” (“ASU 2016-02”). Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: a lease liability, which is a lessee’s obligation to make lease payments arising from a lease, measured on a discounted basis; and a right-of-use asset, which is an asset that represents the lessee’s right to use, or control the use of, a specified asset for the lease term. In July 2018, the FASB issued ASU 2018-11, to add a transition option allowing entities to not apply the new leases standard, including its disclosure requirements, in the comparative periods they present in their financial statements in the year of adoption. ASU 2018-11 and ASU 2016-02 are effective for public companies for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted for any organization in any interim or annual period. The Company currently has operating leases for its office spaces as disclosed in Note 16 of the consolidated financial statements which will be recognized as right-of-use asset upon adoption of ASU 2016-02. The Company is in the process of evaluating the impact of adopting ASU 2016-02 on the Company’s consolidated financial statements and anticipates the adoption of ASU 2018-11 and ASU 2016-02 to have no material impact on the Company’s results of operations or financial condition.

In June 2016, the FASB issued ASU 2016-13, “Financial Instruments - Credit Losses (Topic 326): Measurements of Credit Losses on Financial Instruments” (“ASU 2016-13”). ASU 2016-13 amends the guidance on reporting credits losses and affects loans, debt securities, trade receivables, reinsurance recoverables and other financial assets that have the contractual right to receive cash. The amendment is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods. Early adoption is permitted for any organization for annual periods beginning after December 15, 2018 and interim periods within those annual periods. The Company is in the process of evaluating the impact of the requirements of ASU 2016-13 on the Company’s consolidated financial statements and anticipates implementing ASU 2016-13 during 2020.

3. INVESTMENT IN RELATED PARTY INVESTMENT FUND

Effective September 1, 2018, Greenlight Re and GRIL entered into the SILP LPA with DME II. In accordance with the SILP LPA, DME II serves as the general partner of SILP. Pursuant to the IAA, DME Advisors is the investment manager for SILP. In addition, on September 1, 2018, Greenlight Re and GRIL, together the “GLRE Limited Partners”, and SILP executed a Participation Agreement pursuant to which the GLRE Limited Partners transferred a participation interest in the assets that were subject to the Joint Venture (except for certain assets that were mutually agreed and excluded from participating) to SILP (collectively referred to as the “LP Transaction”). SILP issued limited partner interests to the GLRE Limited Partners proportionate to and based on the net asset value transferred by each such entity effective September 1, 2018. The Joint Venture was terminated on January 2, 2019, the date by which substantially all assets were transferred to SILP in accordance with the SILP LPA.

As a result of the changes described above, the Company’s investment in SILP has been presented on the consolidated balance sheets in the caption “Investment in related party investment fund”. In assessing the Company’s interest in SILP in accordance with the Company’s accounting policy for variable interest entities, the Company determined whether the GLRE Limited Partners met the power and benefits criterion. The Company determined that DME II serves as SILP’s general partner and has the power of appointing the investment manager. The Company does not have the power to appoint, change or replace the investment manager or the general partner except “for cause.” Neither of the GLRE Limited Partners can participate in the investment decisions of SILP as long as SILP adheres to the investment guidelines provided within the SILP LPA. The Company concluded that since GLRE Limited Partners did not have substantive participating rights or kick-out rights, it did not meet the power criterion. The Company determined that DME II meets the power criterion and further considered whether DME II meets the benefits criterion. DME II holds an interest in excess of 10% of SILP’s net assets which the Company considers to represent an obligation to absorb losses and a right to receive benefits of SILP that are significant to SILP. Consequently, the Company has determined that DME II meets the benefits criterion as well as the power criterion and is therefore SILP’s primary beneficiary.

The Company accounted for the transfer of the investment assets to SILP as a sale. The underlying investment liabilities were extinguished from the Company’s consolidated balance sheet as they were either settled, novated or legally transferred to SILP as part of the LP Transaction. There were no net gains or losses resulting from the transfer of net assets. There was no cash paid or received by the Company as part of the LP Transaction.

At December 31, 2018, certain assets that were subject to the Participation Agreement for which the GLRE Limited Partners received an interest in SILP had not transferred legal title to SILP. While the rights and privileges relating to those assets had been transferred to SILP, those assets are reported on the consolidated balance sheets until legal title has transferred to SILP. The Company has accounted for those assets as collateralized borrowing and recorded a liability in the caption, “Due to related party investment fund”, relating to the Company’s obligation to transfer those assets to SILP.

The Company’s maximum exposure to loss relating to SILP is limited to the net asset value of the GLRE Limited Partners’ investment in SILP. As of December 31, 2018, the net asset value of the GLRE Limited Partners’ investment in SILP was $235.6 million, representing 84.9% of SILP’s total net assets. The remaining 15.1% of SILP’s total net assets was held by DME II. The investment in SILP is recorded at the GLRE Limited Partners’ share of the net asset value of SILP as reported by SILP’s third party administrator, which approximates fair value. The GLRE Limited Partners can redeem their assets from SILP for operational purposes by providing three business days’ notice to DME II. The majority of SILP’s long investments are composed of publicly-traded equity securities and other holdings, which can be readily liquidated to meet any GLRE Limited Partners’ redemption requests. The Company’s share of change in the net asset value of SILP for the year ended December 31, 2018 was a loss of $60.6 million, and included in the caption “Income (loss) from investment in related party investment fund” in the Company’s consolidated statements of operations.

During the year ended December 31, 2018, the Company transferred the rights to $366.3 million of net investments from Greenlight RE and GRIL’s Joint Venture investment accounts to SILP in exchange for limited partnership interests of the same amount, resulting in no net gain or loss. The transfer of assets included non-cash items as follows:

Non-cash transactions		($ in thousands)
Net investments transferred to related party investment fund (excluding cash and restricted cash)	$	124,344
Participating interest transferred to related party investment fund		664
Total non-cash transfer of assets	$	125,008

The Company has determined that for its fiscal year ended year ended December 31, 2018, the Company’s investment in SILP did not meet the conditions of a significant subsidiary under Rule 1-02(w) of Regulation S-X. The summarized financial statements of SILP are presented below.

Summarized Statement of Operations of Solasglas Investments, LP

		From September 1, 2018 (commencement of operations) to December 31, 2018
		($ in thousands)
Investment income		
Dividend income (net of withholding taxes)	$	2,160
Interest income		1,868
Total Investment income		4,028
Expenses		
Management fee		(3,100)
Interest		(2,627)
Dividends		(1,608)
Professional fees and other		(483)
Total expenses		(7,818)
Net investment income (loss)		(3,790)
Realized and change in unrealized gains (losses) on investments		
Net realized gain (loss) on investments		(80,996)
Net change in unrealized appreciation on investments		14,789
Net gain (loss) on investments		(66,207)
Net income (loss)	$	(69,997)
GLRE Limited Partners’ share of net income (loss)	$	(60,573)

Summarized Statement of Assets and Liabilities of Solasglas Investments, LP

	December 31, 2018
	($ in thousands)
Assets	
Investments, at fair value	$ 464,461
Due from brokers	77,821
Cash and cash equivalents	13,200
Interest and dividends receivable	2,358
Total assets	557,840
Liabilities and partners' capital	
Liabilities	
Investments sold, not yet purchased, at fair value	(225,072)
Notes Payable	(30,000)
Due to brokers	(23,951)
Interest and dividends payable	(1,238)
Other liabilities	(169)
Total liabilities	(280,430)
Net Assets	$ 277,410
GLRE Limited Partners' share of Net Assets	$ 235,612

4. FINANCIAL INSTRUMENTS

In the normal course of its business, the Company purchases and sells various financial instruments, which may include listed and unlisted equities, corporate and sovereign debt, commodities, futures, put and call options, currency forwards, other derivatives and similar instruments sold, not yet purchased.

The Company is exposed to credit risk in relation to counterparties that may default on their obligations to the Company. The amount of counterparty credit risk predominantly relates to the value of financial contracts receivable and assets held at counterparties. The Company mitigates its counterparty credit risk by (i) using several counterparties, which decreases the likelihood of any significant concentration of credit risk with any one counterparty and (ii) obtaining collateral from its counterparties based on the value of the financial contracts receivable. In addition, the Company is exposed to credit risk on corporate and sovereign debt instruments to the extent that the debtors may default on their debt obligations.

The Company is exposed to market risk including interest rate and foreign exchange fluctuations on financial instruments that are valued at market prices. Market movements can be significant and difficult to predict. This volatility may affect the gains or losses ultimately realized by the Company upon the sale of its holdings, as well as the amount of net investment income (loss) reported in the consolidated statements of operations. Management utilizes the services of the Company's investment advisor to monitor the Company's positions to reduce the risk of loss due to changes in market values. The investment advisor may be limited in its ability to trade certain investments on behalf of the Company.

Purchases and sales of investments are disclosed in the Company's consolidated statements of cash flows. The following table summarizes the change in unrealized gains and losses and the realized gains and losses on financial instruments included in the caption "Net investment income (loss)" in the Company's consolidated statements of operations for the years ended December 31, 2018, 2017 and 2016:

	Year ended December 31		
	2018	2017	2016
	($ in thousands)		
Gross realized gains	$ 303,674	$ 267,904	$ 188,700
Gross realized losses	(540,561)	(180,286)	(302,536)
Net realized gains (losses)	$ (236,887)	$ 87,618	$ (113,836)
Change in unrealized gains and losses	$ (32,597)	$ (41,444)	$ 209,993

As of December 31, 2018, cash and investments with a fair value of $221.7 million (2017: $200.4 million) have been pledged as security against letters of credit issued, and $463.4 million (2017: $377.9 million) have been pledged as security relating to regulatory trusts.

As of December 31, 2018, the Company's investments in SILP was in excess of 10% of the Company's total shareholders' equity, with fair value of $235.6 million, representing 49.3%, of total shareholders' equity.

As of December 31, 2017, the Company's investments in General Motors, Brighthouse Financial Inc, gold and gold derivatives, Bayer AG and Mylan NV were in excess of 10% of the Company's total shareholders' equity, with fair values of $205.5 million, or 24.3%, $132.4 million or 15.7%, $121.5 million, or 14.4%, $103.6 million or 12.3% and $84.8 million or 10.0%, respectively, of total shareholders' equity.

Investments

Debt instruments, trading

At December 31, 2018, the Company held no debt instruments as a result of the LP Transaction discussed in Note 3 above.

At December 31, 2017, the Company held the following debt instruments:

	Cost/ amortized cost	Unrealized gains	Unrealized losses	Fair value
	($ in thousands)			
Corporate debt – U.S.	$ 8,508	$ —	$ (7,186)	$ 1,322
Corporate debt – Non U.S.	2,109	—	(2,057)	52
Municipal debt – U.S.	5,831	—	(25)	5,806
Total debt instruments	$ 16,448	$ —	$ (9,268)	$ 7,180

The maturity distribution for debt instruments held at December 31, 2017, was as follows:

	2017	
	Cost/ amortized cost	Fair value
Within one year	$ 7,557	$ 441
From one to five years	—	—
From five to ten years	2,109	52
More than ten years	6,782	6,687
	$ 16,448	$ 7,180

Equity securities, trading

At December 31, 2018, the following long positions were included in the caption “Equity securities, trading”:

	Cost	Unrealized gains	Unrealized losses	Fair value
		($ in thousands)		
Equities – listed	$ 50,521	$ 1,015	$ (14,628)	$ 36,908
Total equity securities	$ 50,521	$ 1,015	$ (14,628)	$ 36,908

At December 31, 2017, the following long positions were included in the caption “Equity securities, trading”:

	Cost	Unrealized gains	Unrealized losses	Fair value
		($ in thousands)		
Equities – listed	$ 1,014,426	$ 208,350	$ (19,104)	$ 1,203,672
Total equity securities	$ 1,014,426	$ 208,350	$ (19,104)	$ 1,203,672

Other Investments

“Other investments” include commodities and private securities and unlisted funds and investments accounted for under the equity method which are not significant to present separately on the balance sheet. As of December 31, 2017, all commodities were composed of gold bullion.

At December 31, 2018, the following securities were included in the caption “Other investments”:

	Cost	Unrealized gains	Unrealized losses	Fair value / carrying value
		($ in thousands)		
Private investments and unlisted equity funds	$ 6,672	$ —	$ (267)	$ 6,405
Investment accounted for under the equity method	NA	NA	NA	5,003
Total Other Investments				$ 11,408

At December 31, 2018, the Company held a 58% interest in AccuRisk Holdings LLC (“AccuRisk”) and had provided a $6.0 million credit facility to AccuRisk. The Company’s involvement in AccuRisk includes providing capital and funding for AccuRisk’s expansion plans and providing reinsurance to business produced by AccuRisk. The Company has determined that AccuRisk is a VIE, of which the Company is not the primary beneficiary. The Company has accounted for its investment in AccuRisk under the equity method and included it under “Other Investments”. The carrying value of AccuRisk is adjusted based on the Company’s share of ownership, including its share of the income (loss) reported in quarterly management accounts by AccuRisk. The Company’s maximum exposure to loss relating to AccuRisk is limited to the carrying amount of its investment in AccuRisk plus any loans outstanding to AccuRisk (see Note 16). For the year ended December 31, 2018, the Company’s share of AccuRisk’s net income (loss) was $(0.2) million which was included in the caption “Net investment income (loss)” in the Company’s consolidated statements of operations.

At December 31, 2017, the following securities were included in the caption “Other investments”:

	Cost	Unrealized gains	Unrealized losses	Fair value
	($ in thousands)			
Commodities	$ 101,184	$ 20,318	$ —	$ 121,502
Private investments and unlisted equity funds	25,316	5,314	—	30,630
	$ 126,500	$ 25,632	$ —	$ 152,132

Private and unlisted equity funds include private equity securities that did not have readily determinable fair values and the Company applied the measurement alternative under ASU 2016-01 and ASU 2018-03. At December 31, 2018 the carrying value of the private equity securities without readily determinable fair value was $5.7 million (December 31, 2017: $3.9 million). The carrying values of the private equity securities are determined based on the original cost, reviewed for impairment and any subsequent changes in the valuation based on periodic third party valuations or recent observable transactions of those securities. There were no meaningful upward or downward adjustments to the carrying values of the private equity securities for the year ended December 31, 2018.

Investments in Securities Sold, Not Yet Purchased

Securities sold, not yet purchased are securities that the Company has sold, but does not own, in anticipation of a decline in the market value of the security. The Company’s risk is that the value of the security will increase rather than decline. Consequently, the settlement amount of the liability for securities sold, not yet purchased may exceed the amount recorded in the consolidated balance sheet as the Company is obligated to purchase the securities in the market at prevailing prices to settle its obligations. To establish a position in a security sold, not yet purchased, the Company needs to borrow the security for delivery to the buyer. On each day the transaction is open, the liability for the obligation to replace the borrowed security is marked to market and an unrealized gain or loss is recorded. At the time the transaction is closed, the Company realizes a gain or loss equal to the difference between the price at which the security was sold and the cost of replacing the borrowed security. While the transaction is open, the Company will also incur an expense for any dividends or interest which will be paid to the lender of the securities.

As a result of the LP Transaction described in Note 3, the Company held no investments in securities sold, not yet purchased at December 31, 2018.

At December 31, 2017, the following securities were included in the caption “Investments in securities sold, not yet purchased”:

	Proceeds	Unrealized gains	Unrealized losses	Fair value
	($ in thousands)			
Equities – listed	$ (643,148)	$ 17,541	$ (187,045)	$ (812,652)
Sovereign debt – Non U.S.	(96,231)	—	(3,914)	(100,145)
	$ (739,379)	$ 17,541	$ (190,959)	$ (912,797)

Financial Contracts

Prior to the LP Transaction described in Note 3 above, the Company had entered into total return equity swaps, interest rate swaps, commodity swaps, options, warrants, rights, futures and forward contracts with various financial institutions to meet certain investment objectives. Under the terms of each of these financial contracts, the Company was either entitled to receive or was obligated to make payments, which are based on the product of a formula contained within each contract that includes the change in the fair value of the underlying or reference security. As of December 31, 2018, the Company had no remaining financial contracts as a result of the LP Transaction.

At December 31, 2017, the fair values of financial contracts outstanding were as follows:

Financial Contracts	Listing currency [1]	Notional amount of underlying instruments	Fair value of net assets (obligations) on financial contracts
		($ in thousands)	
Financial contracts receivable			
Call options	USD	2,656	$ 91
Commodity Swaps	USD	17,833	2,142
Forwards	KRW	41,379	801
Futures	USD	5,874	12
Interest rate swaps	JPY	21,269	479
Put options [2]	USD	155	1
Total return swaps – equities	EUR/GBP/USD	34,965	9,357
Warrants and rights on listed equities	EUR/USD	29	10
Total financial contracts receivable, at fair value			$ 12,893
Financial contracts payable			
Commodity Swaps	USD	26,795	$ (353)
Put options	USD	130	(14)
Total return swaps – equities	EUR/GBP/KRW/RON/USD	60,663	(21,855)
Total financial contracts payable, at fair value			$ (22,222)

[1] USD = US Dollar; EUR = Euro; GBP = British Pound; JPY = Japanese Yen; KRW = Korean Won; RON = Romanian New Leu.

[2] Includes options on the Japanese Yen and the Chinese Yuan, denominated in U.S. dollars.

The Company includes gains and losses on derivatives in the caption “Net investment income (loss)” in the Company’s consolidated statements of operations. During the years ended December 31, 2018, 2017 and 2016, the Company reported gains and losses on derivatives as follows:

Derivatives not designated as hedging instruments	Gain (loss) on derivatives recognized in income		
	Year ended December 31		
	2018	2017	2016
	($ in thousands)		
Commodity swaps	$ 4,402	$ (9,293)	$ 10,474
Forwards	(2,983)	2,507	(302)
Futures	(13,339)	(399)	376
Interest rate options	(1,771)	—	—
Interest rate swaps	(255)	136	218
Options, warrants, and rights	(14,627)	(18,455)	10,261
Total return swaps – equities	(10,981)	2,281	28,612
Total	$ (39,554)	$ (23,223)	$ 49,639

The Company generally does not enter into derivatives for risk management or hedging purposes. The volume of derivative activities varies from period to period depending on potential investment opportunities.

For the year ended December 31, 2018, the Company’s volume of derivative activities (based on notional amounts) was as follows:

	Year ended December 31, 2018	
Derivatives not designated as hedging instruments (notional amounts)	**Entered**	**Exited**
	($ in thousands)	
Commodity swaps	$ 34,792	$ 85,669
Forwards	65,819	105,017
Futures	423,374	440,594
Interest rate options [1]	1,783,000	1,783,000
Interest rate swaps	—	28,758
Options, warrants and rights [1]	298,830	225,142
Total return swaps	25,480	157,533
Total	$ 2,631,295	$ 2,825,713

[1] Exited amount excludes derivatives which expired or were exercised during the period.

For the year ended December 31, 2017, the Company’s volume of derivative activities (based on notional amounts) was as follows:

	Year ended December 31, 2017	
Derivatives not designated as hedging instruments (notional amounts)	**Entered**	**Exited**
	($ in thousands)	
Commodity swaps	$ 2,025	$ 41,830
Forwards	34,652	1,739
Futures	38,207	32,537
Options, warrants and rights [1]	950,811	133,407
Total return swaps	258,874	355,446
Total	$ 1,284,569	$ 564,959

[1] Exited amount excludes derivatives which expired or were exercised during the period.

The Company does not offset its derivative instruments and presents all amounts in the consolidated balance sheets on a gross basis. The Company has pledged cash collateral to derivative counterparties to support the current value of amounts due to the counterparties on its derivative instruments.

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As of December 31, 2018, the Company did not hold any gross or net derivative instruments.

As of December 31, 2017, the gross and net amounts of derivative instruments and the cash collateral applicable to derivative instruments were as follows:

December 31, 2017	(i)	(ii)	(iii) = (i) - (ii)	(iv) Gross amounts not offset in the balance sheet		(v) = (iii) + (iv)
Description	**Gross amounts of recognized assets (liabilities)**	**Gross amounts offset in the balance**	**Net amounts of assets (liabilities) presented in the balance**	**Financial instruments available for offset**	**Cash collateral (received) pledged**	**Net amount of asset (liability)**
			($ in thousands)			
Financial contracts receivable	$ 12,893	$ —	$ 12,893	$ (5,128)	$ (1,336)	$ 6,429
Financial contracts payable	(22,222)	—	(22,222)	5,128	17,094	—

Fair Value Hierarchy

The fair value of a financial instrument is the amount that would be received in an asset sale or paid to transfer a liability in an orderly transaction between unaffiliated market participants. Assets and liabilities measured at fair value are categorized based on whether the inputs are observable in the market and the degree that the inputs are observable. The categorization of financial instruments within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement. The hierarchy is prioritized into three levels (with Level 3 being the lowest) defined as follows:

- *Level 1:* Quoted prices in active markets for identical assets or liabilities that the entity has the ability to access.
- *Level 2:* Observable inputs other than prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated with observable market data.
- *Level 3:* Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets and liabilities. This includes certain pricing models, discounted cash flow methodologies, and similar techniques that use significant unobservable inputs.

The fair values of the Company’s listed equity investments are derived based on Level 1 inputs. The fair values of listed equities that have restrictions on sale or transfer which expire within one year, are determined by adjusting the observed market price of the equity using a liquidity discount based on observable market inputs.

The fair values of most debt instruments are derived based on Level 2 inputs, generally the average of multiple market maker or broker quotes which are considered to be binding. Where quotes are not available, debt instruments are valued using Level 3 inputs including cash flow models using assumptions and estimates that may be subjective and non-observable.

The fair values of commodities are determined based on Level 1 inputs.

The Company maximizes the use of Level 2 inputs when deriving the fair values for “other investments”. For limited partnerships and private and unlisted equity securities, where observable inputs are not available, the fair values are derived based on Level 3 inputs, such as management’s assumptions developed from available information using the services of the investment advisor.

For certain private equity fund investments, the Company has elected to measure the fair value using the net asset value practical expedient, and accordingly these investments are not assigned a Level within the fair value hierarchy.

Exchange-traded futures or options contracts are based on the movement of a particular index, equity security, commodity, currency or interest rate. Where such contracts are traded in an active market, the Company’s obligations or rights on these contracts are valued based on Level 1 or Level 2 inputs. The total return swaps are valued based on Level 2 inputs.

Amounts invested in exchange-traded options and over the counter ("OTC") options are recorded either as an asset or liability at inception. Subsequent to initial recognition, unexpired exchange traded option contracts are valued based on Level 1 inputs. For OTC options or exchange traded options where a quoted price in an active market is not available, fair values are derived based upon Level 2 inputs such as multiple quotes from brokers and market makers, which are considered to be binding.

A CDS trading in an active market is valued at fair value based on broker or market maker quotes for identical instruments in an active market or on the current credit spreads on identical contracts, both Level 2 inputs.

The Company's financial instruments are carried at fair value, and the net unrealized gains or losses are included in the caption "Net investment income (loss)" in the Company's consolidated statements of operations.

The following table presents the Company's investments, categorized by the level of the fair value hierarchy as of December 31, 2018:

	Fair value measurements as of December 31, 2018			
Description	**Quoted prices in active markets (Level 1)**	**Significant other observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**	**Total**
		($ in thousands)		
Assets:				
Listed equity securities	$ 36,908	$ —	$ —	$ 36,908
Private and unlisted equity securities	—	—	664	664
	$ 36,908	$ —	$ 664	$ 37,572
Investment in related party investment fund measured at net asset value [1] [2]				235,612
Equities without readily determinable fair values for which measurement alternative is applied				5,741
Investment accounted for under the equity method				5,003
Total investments				$ 283,928

[1] Investments measured at fair value using the net asset value practical expedient have not been classified in the fair value hierarchy. The fair value amounts are presented in the above table to facilitate reconciliation to the consolidated balance sheets.

[2] See Note 3 "Investment in related party investment fund".

The following table presents the Company's investments, categorized by the level of the fair value hierarchy as of December 31, 2017:

Description	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
	Fair value measurements as of December 31, 2017			
	($ in thousands)			
Assets:				
Debt instruments	$ —	$ 6,300	$ 880	$ 7,180
Listed equity securities	1,181,150	22,522	—	1,203,672
Commodities	121,502	—	—	121,502
Private and unlisted equity securities	—	—	6,108	6,108
	$ 1,302,652	$ 28,822	$ 6,988	$ 1,338,462
Unlisted equity funds measured at net asset value [(1)]				24,522
Total investments				$ 1,362,984
Financial contracts receivable	$ 22	$ 12,871	$ —	$ 12,893
Liabilities:				
Listed equity securities, sold not yet purchased	$ (812,652)	$ —	$ —	$ (812,652)
Debt instruments, sold not yet purchased	—	(100,145)	—	(100,145)
Total securities sold, not yet purchased	$ (812,652)	$ (100,145)	$ —	$ (912,797)
Financial contracts payable	$ —	$ (22,222)	$ —	$ (22,222)

[(1)] Investments measured at fair value using the net asset value practical expedient have not been classified in the fair value hierarchy. The fair value amounts are presented in the above table to facilitate reconciliation to the consolidated balance sheets.

The following table presents the reconciliation of the balances for all investments measured at fair value using significant unobservable inputs (Level 3) for the year ended December 31, 2018:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)		
	Year ended December 31, 2018		
	Assets		
	Debt instruments	Private and unlisted equity securities	Total
	($ in thousands)		
Beginning balance	$ 880	$ 6,108	$ 6,988
Sales	(916)	(1,890)	(2,806)
Total realized and unrealized gains (losses) and amortization included in earnings, net	36	(304)	(268)
Transfers out of Level 3	—	(3,250)	(3,250)
Ending balance	$ —	$ 664	$ 664

During the year ended December 31, 2018, the sales of debt instruments and private and unlisted equities measured at fair value using Level 3 inputs were the result of the LP Transaction. For the year ended December 31, 2018, the private and unlisted equity securities without readily determinable fair values, for which measurement alternative is applied, were transferred out of Level 3 fair value hierarchy. There were no other transfers between Level 1, Level 2 or Level 3 during the year ended December 31, 2018.

The following table presents the reconciliation of the balances for all investments measured at fair value using significant unobservable inputs (Level 3) for the year ended December 31, 2017:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)		
	Year ended December 31, 2017		
	Assets		
	Debt instruments	Private and unlisted equity securities	Total
	($ in thousands)		
Beginning balance	$ 654	$ 6,109	$ 6,763
Purchases	—	1,750	1,750
Total realized and unrealized gains (losses) and amortization included in earnings, net	226	17	243
Transfers out of Level 3	—	(1,768)	(1,768)
Ending balance	$ 880	$ 6,108	$ 6,988

During the year ended December 31, 2017, $1.8 million of the private equity securities were transferred from Level 3 to Level 1 as these securities commenced trading on a listed exchange during the year and the fair value was determined based on the last traded price on an active market. There were no other transfers between Level 1, Level 2 or Level 3 during the year ended December 31, 2017.

For the year ended December 31, 2018, there were $0.1 million net realized losses relating to Level 3 securities (2017: nil).

For Level 3 securities still held as of the reporting date, the change in net unrealized gains (losses) for the year ended December 31, 2018 of $(0.3) million (2017: net unrealized gains $0.2 million), were included in the caption “Net investment income (loss)” in the Company’s consolidated statements of operations.

5. DUE TO PRIME BROKERS AND OTHER FINANCIAL INSTITUTIONS

Amounts due to prime brokers represent margin-borrowing from prime brokers and custodians relating to investments purchased on margin. In addition under term margin agreements with prime brokers and revolving credit facilities with custodians and a letter of credit facility agreement, the Company pledged certain investment securities to borrow cash. The cash borrowed under a letter of credit facility agreement was placed in a custodial account in the name of the Company and this custodial account provided collateral for any letters of credit issued. Similarly for the trust accounts, the Company borrowed cash from prime brokers or custodians which was placed in a trust account for the benefit of the cedent. As there was no legal right of offset, the Company’s liability for the cash borrowed from the prime brokers and custodians was included on the consolidated balance sheets as due to prime brokers and other financial institutions while the cash held in the custodial account and trust accounts were included on the consolidated balance sheets as restricted cash and cash equivalents.

As of December 31, 2018, as a result of the LP Transaction (see Note 3), there were no amounts borrowed from prime brokers or custodians and no investments were pledged to prime brokers or custodians to fund the letters of credit and trust accounts. As of December 31, 2017, the Company had amounts due to prime brokers and amounts due to other financial institutions of $647.7 million and $25.0 million, respectively.

6. CASH AND CASH EQUIVALENTS

The Company’s cash and cash equivalents as of December 31, 2018 and 2017 were composed of the following:

	December 31, 2018	December 31, 2017
	($ in thousands)	
Cash at banks	$ 7,295	$ 27,239
Cash held with brokers	10,920	46
Total cash and cash equivalents	$ 18,215	$ 27,285

Due to the short term nature of cash and cash equivalents, the above noted carrying values approximate their fair value. Cash at banks include cash held at non-U.S. financial institutions which are not insured by the FDIC or any other deposit insurance programs.

7. RESTRICTED CASH AND CASH EQUIVALENTS

Restricted cash and cash equivalents include amounts held by the Company to provide collateral required by the cedents in the form of trust accounts and letters of credit (see Notes 5 and 16). As of December 31, 2018 and 2017, the restricted cash and cash equivalents were composed of the following:

	December 31, 2018	December 31, 2017
	($ in thousands)	
Cash held as collateral in trust accounts	$ 463,361	$ 377,932
Cash collateral relating to letters of credit issued	221,655	173,748
Cash held by prime brokers relating to securities sold, not yet purchased	—	912,796
Cash and cash equivalents held by swap counterparties	—	39,337
Total restricted cash and cash equivalents	$ 685,016	$ 1,503,813

As of December 31, 2018, as a result of the LP Transaction (see Note 3), there were no restricted cash and cash equivalents held by prime brokers or swap counterparties. As of December 31, 2017, the amount of restricted cash held by prime brokers was primarily used to support the liability created from securities sold, not yet purchased. Cash held by swap counterparties was used to support the current value of amounts that were due to the swap counterparty based on the value of the underlying security.

8. LOSS AND LOSS ADJUSTMENT EXPENSE RESERVES

At December 31, 2018 and 2017, loss and loss adjustment expense reserves were composed of the following:

	2018	2017
	($ in thousands)	
Case reserves	$ 211,910	$ 178,088
IBNR	270,752	286,292
Total	$ 482,662	$ 464,380

A summary of changes in outstanding loss and loss adjustment expense reserves is presented in the table below.

Consolidated	2018	2017	2016
		($ in thousands)	
Gross balance at January 1	$ 464,380	$ 306,641	$ 305,997
Less: Losses recoverable	(29,459)	(2,704)	(3,368)
Net balance at January 1	434,921	303,937	302,629
Incurred losses related to:			
Current year	363,871	466,247	345,303
Prior years	2	36,157	35,512
Total incurred	363,873	502,404	380,815
Paid losses related to:			
Current year	(160,975)	(220,298)	(156,181)
Prior years	(197,097)	(154,183)	(216,489)
Total paid	(358,072)	(374,481)	(372,670)
Foreign currency revaluation	(1,765)	3,061	(6,837)
Net balance at December 31	438,957	434,921	303,937
Add: Losses recoverable	43,705	29,459	2,704
Gross balance at December 31	$ 482,662	$ 464,380	$ 306,641

The rollforward of outstanding loss and loss adjustment expense reserves for health claims is as follows:

Health	2018	2017	2016
		($ in thousands)	
Gross balance at January 1	$ 22,181	$ 18,993	$ 21,533
Less: Losses recoverable	—	—	—
Net balance at January 1	22,181	18,993	21,533
Incurred losses related to:			
Current year	56,868	44,539	38,726
Prior years	1,508	3,739	(1,477)
Total incurred	58,376	48,278	37,249
Paid losses related to:			
Current year	(34,696)	(23,814)	(22,039)
Prior years	(21,359)	(21,276)	(17,750)
Total paid	(56,055)	(45,090)	(39,789)
Foreign currency revaluation	—	—	—
Net balance at December 31	24,502	22,181	18,993
Add: Losses recoverable	—	—	—
Gross balance at December 31	$ 24,502	$ 22,181	$ 18,993

Loss development

Year ended December 31, 2018

During the year ended December 31, 2018, the Company experienced a modest $2.2 thousand in net adverse development on prior year loss and LAE reserves. This net adverse development resulted primarily from the following:

Adverse developments:

- $11.9 million of adverse loss development on non-standard automobile contracts stemming from industry-wide issues affecting motor liability claims in Florida over accident years 2015 to 2017;
- $3.8 million of adverse loss development on solicitors professional indemnity contracts resulting primarily from prevalence of several large claims being reported on prior accident years;
- $2.0 million of adverse loss development on general liability contracts, spread over treaty years 2012-2017, resulting from deteriorations in claims experience; and
- $1.8 million of adverse loss development on surety contracts, net of retrocession recoveries, due to deterioration on several previously reported claims for one legacy contract.

Favorable developments:

- $7.5 million of favorable prior period experience on property contracts stemming primarily from accident years 2015 and 2016 where claims experience has been better than expected;
- $5.9 million of favorable loss development, net of retrocession recoveries, relating to 2017 hurricanes as a result of claims experience being better than initially estimated. The favorable loss development was partially offset by $1.6 million of return premiums relating to reinstatement premiums previously recorded; and
- $4.1 million of favorable loss development on prior period mortgage insurance contracts resulting from ongoing favorable claims experience across all prior accident years.

The remaining net favorable development on prior year loss and LAE reserves recognized in 2018 related to several smaller adjustments made across various lines of business.

During the year ended December 31, 2017, the Company experienced $36.2 million in net adverse development on prior year loss and LAE reserves. This net adverse development resulted primarily from the following:

- $10.7 million of adverse loss development associated with various classes of professional liability exposure, driven by additional reporting on individual claims, as well as the Company's assessment of industry wide loss ratio performance;
- $4.3 million of adverse loss development associated with motor contracts based on re-projection of ultimate losses using client reporting patterns;
- $4.1 million of adverse loss development relating to Florida homeowners' insurance contracts, largely driven by "assignment of benefits" issues whereby homeowners assign their rights for filing and settling claims to attorneys and public adjusters;
- $3.7 million of adverse loss development associated with specialty health contracts arising from frequency of medical claims reported; and
- $2.2 million of adverse loss development due to large claims reported on a surety contract.

The remaining net adverse development on prior year loss and LAE reserves recognized in 2017 related to several smaller adjustments made across various lines of business.

During the year ended December 31, 2016, the Company experienced $35.5 million in net adverse development on prior year loss and LAE reserves. This net adverse development resulted primarily from the following:

- $19.0 million of losses resulting from the loss portfolio transfer and subsequent novation of legacy construction defect liabilities;
- $7.0 million of adverse loss development relating to our Florida homeowners’ insurance contracts as a result of deterioration of sinkhole claims and an increase in the practice of “assignment of benefits” whereby homeowners assign their rights for filing and settling claims to attorneys and public adjusters;
- $6.7 million of adverse loss development relating to our private passenger motor contracts. While the loss indications are close to our expectations, the volume and frequency of unmerited suits served to the cedent by attorneys and medical clinics has resulted in an increase in loss adjustment expenses to defend such claims; and
- $4.5 million of adverse loss development on an excess of loss contract relating to losses resulting from the U.S. sub-prime crisis.

The remaining net favorable development on prior year loss and LAE reserves recognized in 2016 related to several smaller adjustments made across various lines of business.

Disclosures about Short Duration Contracts

The Company manages its business on the basis of one operating segment, property & casualty reinsurance. Prior to 2018, management analyzed the underwriting operations using two categories: frequency business and severity business. The Company had previously disclosed the incurred and paid claims development tables in its Form 10-K for the year ended December 31, 2017, whereby the tables were categorized as Frequency - Health; Frequency - Non-Health; and Severity. Effective from 2018, the Company no longer categorizes its business as frequency and severity but instead categorizes its business as Property, Casualty and Other. The loss development tables presented below have been disaggregated by lines of business for the years ended from December 31, 2009 to 2018.

For purposes of the loss development tables, the property business has been further disaggregated into "Property" and "Motor - Physical Damage". The casualty category has been disaggregated into "General Liability", "Motor Liability", "Professional Liability" and "Workers' Compensation". In addition, the incurred and paid claims relating to accident and health business have been presented separately as "Health". Other specialty business including financial, aviation, energy and marine which are individually insignificant to our overall business have been grouped together as "Other". Contracts that cover more than one line of business are grouped as "Multi-line".

For each of the categories, the following tables present the incurred and paid claims development as of December 31, 2018, net of retrocession, as well as the total of incurred but not reported liabilities plus expected development on reported claims included within the net incurred claims amount. Health claims have been disaggregated and presented separately.

The information in the tables below about incurred and paid claims development for the years ended December 31, 2009 to 2017, is presented as unaudited supplementary information.

Health

	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported claims
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ 24,939	$ 23,889	$ 23,327	$ 23,355	$ 23,356	$ 23,356	$ 23,355	$ 23,355	$ 23,355	$ 23,355	$ —
2010		36,075	35,924	36,224	36,159	36,159	36,145	36,145	36,145	36,145	—
2011			36,140	36,212	35,821	35,800	35,595	35,595	35,595	35,566	—
2012				24,712	23,088	22,780	22,681	22,671	22,671	22,658	—
2013					30,544	33,841	34,203	33,960	33,945	33,945	—
2014						32,875	30,191	29,514	29,072	29,031	—
2015							34,097	33,530	34,116	33,894	—
2016								37,747	40,889	41,255	—
2017									45,007	46,455	2,330
2018										56,868	22,172
									Total	$ 359,172	24,502

Health

	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ 8,626	$ 23,030	$ 23,327	$ 23,355	$ 23,355	$ 23,356	$ 23,355	$ 23,355	$ 23,355	$ 23,355
2010		17,826	35,795	36,224	36,159	36,159	36,145	36,145	36,145	36,145
2011			26,979	35,542	35,814	35,800	35,595	35,595	35,595	35,566
2012				14,896	22,691	22,780	22,679	22,671	22,671	22,658
2013					21,459	33,841	34,024	33,957	33,945	33,945
2014						19,049	28,515	29,117	29,038	29,031
2015							14,529	31,802	34,044	33,894
2016								21,881	39,988	41,255
2017									23,834	44,125
2018										34,696
									Total	334,670
	All outstanding liabilities before 2009, net of reinsurance									—
	Liabilities for claims and claims adjustment expenses, net of reinsurance (Health)									$ 24,502

Multiline

Accident year	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
2010		—	—	—	—	—	—	—	—	—	—
2011			—	—	—	—	—	—	—	—	—
2012				—	—	—	—	—	—	—	—
2013					—	—	—	—	—	—	—
2014						2,390	2,390	2,390	2,609	2,625	1,539
2015							27,900	28,040	30,461	31,957	15,925
2016								55,635	59,882	60,588	33,635
2017									81,612	79,253	51,999
2018										58,537	50,430
									Total	$ 232,960	$ 153,528

Multiline

Accident year	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
2010		—	—	—	—	—	—	—	—	—
2011			—	—	—	—	—	—	—	—
2012				—	—	—	—	—	—	—
2013					—	—	—	—	—	—
2014						—	—	139	560	1,086
2015							28	2,817	9,959	16,032
2016								5,844	16,468	26,953
2017									9,535	27,253
2018										8,107
									Total	79,431
									All outstanding liabilities before 2009, net of reinsurance	—
									Liabilities for claims and claims adjustment expenses, net of reinsurance (Multiline)	$ 153,528

General Liability

	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported claims
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ 4,424	$ 4,121	$ 5,024	$ 5,652	$ 6,147	$ 6,664	$ 9,952	$ 10,113	$ 10,124	$ 10,124	$ —
2010		12,110	14,327	17,484	19,649	21,664	25,946	28,251	28,251	28,251	—
2011			20,925	30,693	40,756	44,897	61,446	77,105	77,105	77,105	—
2012				12,626	18,133	16,921	29,554	31,145	31,161	31,274	384
2013					3,018	2,689	4,666	4,511	4,510	4,916	265
2014						1,238	1,229	1,174	1,033	1,355	862
2015							1,699	1,690	1,756	1,979	1,432
2016								6,203	6,519	7,124	3,847
2017									5,433	6,527	5,116
2018										2,913	2,748
									Total	$ 171,568	$ 14,654

General Liability

	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ 400	$ 1,284	$ 2,255	$ 3,715	$ 4,529	$ 5,519	$ 5,957	$ 10,105	$ 10,124	$ 10,124
2010		2,107	5,096	9,356	14,051	17,471	19,228	28,251	28,251	28,251
2011			2,873	11,751	20,030	25,018	32,954	77,105	77,105	77,105
2012				1,750	9,926	13,142	15,836	30,667	30,687	30,891
2013					1,371	1,917	2,298	4,191	4,274	4,652
2014						18	146	413	548	492
2015							69	293	532	548
2016								122	1,589	3,277
2017									136	1,412
2018										165
									Total	156,917
	All outstanding liabilities before 2009, net of reinsurance									—
	Liabilities for claims and claims adjustment expenses, net of reinsurance (General Liability)									$ 14,654

Motor Casualty

	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported claims
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ 56,960	$ 68,194	$ 77,373	$ 85,241	$ 80,756	$ 81,537	$ 83,270	$ 82,569	$ 82,609	$ 82,615	$ —
2010		64,264	74,260	86,881	83,496	84,742	88,377	88,022	88,008	88,012	—
2011			53,035	57,498	57,342	62,921	70,880	70,435	70,495	70,495	62
2012				132,284	131,196	131,896	131,202	131,305	131,302	131,302	—
2013					182,833	179,930	174,744	174,782	174,848	174,925	—
2014						93,718	92,844	94,688	94,385	94,147	—
2015							128,199	130,410	129,991	132,853	3,282
2016								166,389	169,294	174,037	3,380
2017									187,109	188,754	18,597
2018										150,700	67,048
									Total	$ 1,287,840	$ 92,369

Motor Casualty

	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ 20,779	$ 47,225	$ 61,955	$ 72,168	$ 76,020	$ 79,058	$ 80,235	$ 82,569	$ 82,609	$ 82,615
2010		23,413	44,889	60,630	70,356	79,089	82,266	88,008	88,008	88,012
2011			19,082	36,462	49,569	58,244	65,018	70,433	70,433	70,433
2012				58,585	118,142	126,622	128,913	131,302	131,302	131,302
2013					86,558	159,200	171,855	174,658	174,848	174,925
2014						49,994	86,297	89,687	94,385	94,147
2015							81,093	125,645	129,174	129,571
2016								97,325	157,948	170,658
2017									115,204	170,157
2018										83,652
									Total	1,195,472
									All outstanding liabilities before 2009, net of reinsurance	—
									Liabilities for claims and claims adjustment expenses, net of reinsurance (Motor Casualty)	$ 92,369

Motor Property

	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported claims
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
2010		560	656	671	684	662	662	667	667	667	—
2011			3,276	3,271	3,343	3,285	3,285	3,306	3,306	3,306	3
2012				36,985	36,129	36,008	35,998	35,922	35,922	35,922	—
2013					46,189	45,629	44,728	44,656	44,695	44,719	244
2014						18,870	18,797	19,056	19,000	19,006	19
2015							22,035	22,516	22,505	23,263	668
2016								27,853	28,279	29,090	481
2017									39,986	39,621	2,563
2018										42,336	18,760
									Total	$ 237,930	$ 22,738

Motor Property

	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
2010		560	620	620	620	620	644	667	667	667
2011			1,418	2,944	3,305	3,285	3,285	3,303	3,303	3,303
2012				16,902	34,588	35,854	35,903	35,922	35,922	35,922
2013					21,112	41,066	44,363	44,431	44,476	44,476
2014						10,305	17,621	18,420	18,981	18,987
2015							13,859	22,013	22,505	22,595
2016								16,725	27,023	28,609
2017									23,091	37,058
2018										23,576
									Total	215,192
All outstanding liabilities before 2009, net of reinsurance										—
Liabilities for claims and claims adjustment expenses, net of reinsurance (Motor Property)										$ 22,738

Other

	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported claims
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ 429	$ 611	$ 547	$ 589	$ 580	$ 580	$ 580	$ 580	$ 580	$ 580	$ —
2010		4,008	3,858	4,291	4,130	4,130	4,130	3,955	4,130	3,955	—
2011			7,341	8,014	7,525	7,473	7,470	7,468	7,468	7,468	—
2012				4,090	3,591	3,756	3,773	3,759	3,755	3,782	47
2013					2,492	2,875	2,840	2,821	2,801	2,755	177
2014						4,768	3,525	1,776	1,701	1,084	—
2015							4,794	6,769	6,898	4,519	1,119
2016								8,356	10,396	9,137	3,495
2017									9,080	6,004	2,922
2018										6,164	5,202
									Total	$ 45,448	$ 12,962

Other

	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ 151	$ 249	$ 547	$ 589	$ 580	$ 580	$ 580	$ 580	$ 580	$ 580
2010		864	1,593	3,123	3,130	3,406	3,477	3,955	3,955	3,955
2011			1,162	7,544	7,513	7,468	7,468	7,468	7,468	7,468
2012				3,005	3,251	3,676	3,683	3,684	3,688	3,735
2013					213	1,828	2,426	2,339	2,323	2,578
2014						197	659	1,124	1,282	1,084
2015							472	1,387	2,010	3,400
2016								1,472	3,105	5,642
2017									483	3,082
2018										962
									Total	32,486
									All outstanding liabilities before 2009, net of reinsurance	—
									Liabilities for claims and claims adjustment expenses, net of reinsurance (Other)	$ 12,962

Property

	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported claims
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ 18,501	$ 17,340	$ 16,565	$ 15,924	$ 15,449	$ 15,275	$ 11,875	$ 11,852	$ 11,829	$ 11,757	$ —
2010		39,106	41,983	51,698	51,483	52,263	52,507	53,723	53,574	53,495	—
2011			73,309	83,261	79,794	80,402	81,894	83,012	83,067	83,006	—
2012				63,961	50,183	50,874	52,812	53,218	53,473	53,737	—
2013					60,949	58,992	61,776	62,495	62,482	62,422	435
2014						41,736	45,150	46,842	47,082	46,871	573
2015							27,861	30,344	31,744	30,946	1,137
2016								25,626	26,101	23,977	2,962
2017									84,747	78,405	22,024
2018										28,211	22,848
									Total	$ 472,827	$ 49,979

Property

	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ 4,421	$ 10,602	$ 11,378	$ 11,674	$ 11,780	$ 11,840	$ 11,805	$ 11,826	$ 11,810	$ 11,757
2010		20,611	40,858	42,697	43,406	47,914	48,438	53,408	53,542	53,495
2011			49,441	74,383	77,182	79,022	81,214	82,370	82,655	83,006
2012				32,085	45,887	50,242	52,657	53,211	53,259	53,737
2013					34,807	55,668	58,525	60,344	61,074	61,987
2014						20,230	40,171	43,637	45,208	46,298
2015							12,939	25,451	28,842	29,809
2016								9,941	18,181	21,016
2017									43,271	56,380
2018										5,363
									Total	422,848
									All outstanding liabilities before 2009, net of reinsurance	—
									Liabilities for claims and claims adjustment expenses, net of reinsurance (Property)	$ 49,979

Professional Liability

	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported claims
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ 8,484	$ 6,310	$ 6,293	$ 6,293	$ 6,592	$ 6,592	$ 6,771	$ 6,771	$ 6,831	$ 6,831	$ 1,905
2010		3,828	3,296	3,526	3,663	3,850	3,878	3,864	3,864	3,864	424
2011			5,818	6,654	7,093	7,764	7,819	7,654	7,892	7,892	352
2012				10,818	10,823	11,347	11,767	11,949	12,643	12,643	1,140
2013					11,973	12,824	14,292	15,881	16,671	16,838	2,528
2014						18,515	17,938	17,902	20,363	21,328	5,492
2015							18,127	18,117	20,628	21,989	10,397
2016								13,630	16,773	17,126	12,309
2017									10,220	9,908	8,477
2018										4,477	4,236
									Total	$ 122,896	$ 47,260

Professional Liability

	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ —	$ —	$ —	$ 92	$ 128	$ 128	$ 383	$ 383	$ 649	$ 4,926
2010		—	33	388	805	1,073	1,429	1,566	1,684	3,440
2011			106	1,282	3,543	5,049	6,336	7,014	7,491	7,539
2012				513	3,532	6,155	8,507	9,886	11,342	11,503
2013					684	3,352	7,482	10,760	13,568	14,310
2014						1,319	5,238	9,354	13,646	15,836
2015							1,142	3,227	8,725	11,592
2016								334	2,140	4,817
2017									225	1,431
2018										241
									Total	75,635
	All outstanding liabilities before 2009, net of reinsurance									558
	Liabilities for claims and claims adjustment expenses, net of reinsurance (Professional Liability)									$ 47,817

Workers' Compensation

	Incurred claims and allocated claim adjustment expenses, net of reinsurance										December 31, 2018
	For the years ended December 31,										Total IBNR plus expected development on reported claims
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	(Unaudited - Supplementary Information)										
	($ in thousands)										
2009	$ 10,063	$ 10,292	$ 9,938	$ 10,076	$ 10,217	$ 10,217	$ 10,217	$ 10,217	$ 10,217	$ 10,217	$ —
2010		11,181	11,736	12,426	13,108	13,108	13,108	13,108	13,108	13,108	—
2011			14,915	15,233	16,861	16,861	16,861	16,861	16,861	16,861	—
2012				11,763	12,213	12,213	12,213	12,213	12,213	12,213	—
2013					4,751	4,751	4,751	4,751	4,751	4,751	—
2014						—	—	—	3	—	—
2015							1,014	1,010	948	950	263
2016								4,342	4,275	4,266	1,484
2017									10,884	10,348	4,992
2018										13,616	9,403
									Total	$ 86,330	$ 16,142

Workers' Compensation

	Cumulative paid claims and allocated claim adjustment expenses, net of reinsurance									
	For the years ended December 31,									
Accident year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Unaudited - Supplementary Information)									
	($ in thousands)									
2009	$ 1,043	$ 4,995	$ 7,833	$ 9,893	$ 10,217	$ 10,217	$ 10,217	$ 10,217	$ 10,217	$ 10,217
2010		3,184	8,170	12,270	13,108	13,108	13,108	13,108	13,108	13,108
2011			5,004	11,175	16,861	16,861	16,861	16,861	16,861	16,861
2012				2,359	12,213	12,213	12,213	12,213	12,213	12,213
2013					4,751	4,751	4,751	4,751	4,751	4,751
2014						—	—	—	—	—
2015							28	251	564	688
2016								613	1,920	2,782
2017									2,028	5,356
2018										4,213
									Total	70,189
All outstanding liabilities before 2009, net of reinsurance										—
Liabilities for claims and claims adjustment expenses, net of reinsurance (Workers' Compensation)										$ 16,142

For any incurred and paid claims denominated in a currency other than U.S. dollars, the above tables are presented using the foreign exchange rate in effect as of the current year end date. As a result, all prior year information has been restated to reflect the exchange rates as of December 31, 2018. This treatment removes any changes in foreign currency exchange rates from distorting the claims development between the years presented.

For assumed contracts the Company does not generally receive claims information by accident year from the ceding insurers, but instead receives claims information by the treaty year of the contract. Claims reported by the ceding insurer to the Company may have the covered losses occurring in an accident year other than the treaty year. For the purpose of the loss development tables, the incurred and paid claims have been allocated to the accident years based on the proportion of premiums earned for each contract during such accident year.

For example, a one-year treaty incepting on October 1, 2010 (with underlying policies each having a one-year duration), would have a 24-month period over which the premiums would be earned. Therefore, claims would be allocated to accident years 2010, 2011 and 2012 based on the proportion of the premiums earned during each accident year. For illustration of this contract, any claims reported during 2010 would be allocated to the 2010 accident year. For losses reported during 2011, the claims would be allocated between 2010 and 2011 based on the percentage of premiums earned during 2010 and 2011. Similarly, for losses reported during 2012 and thereafter, the losses would be allocated to the 2010, 2011 and 2012 accident years based on the proportion of premiums earned during each of those years. However, natural catastrophe losses are treated separately and losses arising from such events are allocated to the specific accident year in which they occurred.

The reconciliation of the net incurred and paid claims development tables to the liability for claims and claim adjustment expenses in the consolidated balance sheet is as follows:

	December 31, 2018
	($ in thousands)
Net outstanding liabilities	
Health	$ 24,502
Multiline	153,528
General Liability	14,654
Motor Casualty	92,369
Motor Property	22,738
Other	12,962
Property	49,979
Professional Liability	47,817
Workers' Compensation	16,142
Liabilities for claims and claims adjustment expenses, net of reinsurance	434,691
Add: Reinsurance recoverable on unpaid claims	43,705
Add: Unallocated claims adjustment expenses	4,266
Total gross liabilities for unpaid claims and claim adjustment expense	$ 482,662

The average historical annual percentage payout of net incurred claims (excluding health) as of the year ended December 31, 2018 is as follows:

Years	1	2	3	4	5	6	7	8	9	10
					(Unaudited - Supplementary Information)					
Multiline	5.4%	11.0%	15.2%	20.3%	20.8%	18.2%	9.1%	—%	—%	—%
General Liability	4.7%	13.1%	12.3%	11.8%	18.8%	29.3%	6.0%	3.2%	0.8%	—%
Motor Casualty	44.9%	32.6%	8.7%	5.2%	3.5%	2.1%	1.9%	1.1%	—%	—%
Motor Property	53.5%	40.7%	5.0%	0.6%	0.1%	0.1%	—%	—%	—%	—%
Other	25.9%	39.4%	18.5%	5.3%	4.5%	3.7%	2.7%	—%	—%	—%
Property	51.9%	32.5%	6.3%	2.6%	2.8%	1.0%	2.6%	0.3%	—%	—%
Professional Liability	4.2%	15.6%	23.2%	19.0%	14.2%	8.1%	3.9%	2.2%	2.3%	2.3%
Workers' Compensation	27.0%	43.2%	22.8%	5.7%	0.8%	0.5%	—%	—%	—%	—%

The historical annual percentage payout pattern for health claims is excluded from the table above because health claims have short settlement periods and including it would skew the results presented.

As a reinsurance entity, the Company does not consistently receive detailed claims frequency information or claims counts from ceding insurers and third party claim handlers. Due to the nature of the reinsurance contracts, the underlying insured reports claims to the insurer who cedes losses to the Company. The Company is contractually obligated to reimburse the ceding insurer for its share of the losses. While the Company has the right to conduct audits of the ceding insurer's claims files, the insurer is generally not obligated to provide detailed listing of claims counts or other claims frequency information to the Company. Therefore it is impracticable for the Company to present the cumulative number of reported claims by accident year.

9. RETROCESSION

The Company, from time to time, purchases retrocessional coverage for one or more of the following reasons: to manage its overall exposure, to reduce its net liability on individual risks, to obtain additional underwriting capacity and to balance its underwriting portfolio. Additionally, retrocession can be used as a mechanism to share the risks and rewards of business written and therefore can be used as a tool to align the Company's interests with those of its counterparties. The Company currently has coverage that provides for recovery of a portion of loss and loss expenses incurred on certain contracts. Loss and loss adjustment expenses recoverable from the retrocessionaires are recorded as assets.

For the year ended December 31, 2018, the Company's earned ceded premiums were $102.9 million (2017: $33.8 million and 2016: $10.9 million). For the year ended December 31, 2018, loss and loss adjustment expenses incurred of $363.9 million (2017: $502.4 million and 2016: $380.8 million) reported on the Company's consolidated statements of operations are net of loss and loss expenses recovered and recoverable of $71.0 million (2017: $31.8 million and 2016: $0.9 million).

Retrocession contracts do not relieve the Company of its obligations to the insureds. Failure of retrocessionaires to honor their obligations could result in losses to the Company. At December 31, 2018, the Company's loss reserves recoverable consisted of (i) $34.3 million (2017: $26.3 million) from unrated retrocessionaires which were secured by cash and collateral held in trust accounts for the benefit of the Company and (ii) $9.4 million (2017: $3.1 million) from retrocessionaires rated A- or above by A.M. Best.

The Company regularly evaluates the financial condition of its retrocessionaires to assess the ability of the retrocessionaires to honor their respective obligations. At December 31, 2018 and 2017, no provision for uncollectible losses recoverable was considered appropriate.

10. SENIOR CONVERTIBLE NOTES

On August 7, 2018, the Company issued $100.0 million of senior unsecured convertible notes (the “Notes”) which are due on August 1, 2023. The Notes bear interest at 4.0% and interest is payable semi-annually on February 1 and August 1 of each year beginning on February 1, 2019.

Note holders have the option, under certain conditions, to redeem the Notes prior to maturity. If converted at December 31, 2018, the face value of the Notes would be cash settled and conversion settlement would result in no shares issued by the Company due to the share price of the Company at December 31, 2018 being lower than the conversion price of $17.19 per share.

If Notes are converted by the holder, the Company has the option to settle the conversion obligation in cash, ordinary shares of the Company, or a combination thereof pursuant to the terms of the indenture governing the Notes. The Company has therefore bifurcated the Notes into liability and equity components.

The Notes were issued with a discount of $8.2 million, which reflected an effective interest rate of 6.0%. As of December 31, 2018, the unamortized discount was $7.5 million. The Company also incurred issuance costs in connection with the Notes which are being amortized over the term of the Notes. As of December 31, 2018, the unamortized portion of these costs was $2.9 million. The carrying value of the Notes as of December 31, 2018 was $91.2 million, which includes $1.6 million of accrued coupon interest.

For the year ended December 31, 2018, interest expense of $2.5 million was recognized relating to interest coupon, amortization of Notes issuance expense and amortization of the discount.

At December 31, 2018, the equity component of $7.9 million has been included in the caption “Additional paid-in capital” in the Company’s consolidated balance sheets. The fair value measurements relating to the allocation of the total proceeds from the issuance of the Notes between liability and equity components were based on observable inputs and therefore were considered to be Level 2 of the fair value hierarchy. The Company was in compliance with all covenants relating to the Notes as of December 31, 2018.

11. SHARE CAPITAL

The holders of all ordinary shares are entitled to share equally in dividends declared by the Board of Directors. In the event of a winding-up or dissolution of the Company, the ordinary shareholders share equally and ratably in the assets of the Company, after payment of all debts and liabilities of the Company and after the liquidation of any issued and outstanding preferred shares. At December 31, 2018, no preferred shares were issued or outstanding. The Board of Directors is authorized to establish the rights and restrictions for preferred shares as they deem appropriate.

The Third Amended and Restated Memorandum and Articles of Association as revised by special resolution on July 10, 2008 (the “Articles”), provide that the holders of Class A ordinary shares generally are entitled to one vote per share. However, except upon unanimous consent of the Board of Directors, no Class A shareholder is permitted to vote an amount of shares which would cause any United States person to own (directly, indirectly or constructively under applicable United States tax attribution and constructive ownership rules) 9.9% or more of the total voting power of all issued and outstanding ordinary shares. The Articles further provide that the holders of Class B ordinary shares generally are entitled to ten votes per share. However, holders of Class B ordinary shares, together with their affiliates, are limited to voting that number of Class B ordinary shares equal to 9.5% of the total voting power of the total issued and outstanding ordinary shares.

Pursuant to the Shareholders’ Agreement, dated August 11, 2004, by and among the Company and certain of its shareholders (the “Shareholders’ Agreement”), the holders of at least 50% of the outstanding Registrable Securities (as defined in the Shareholders’ Agreement), may, subject to certain conditions, request to have all or part of their Registrable Securities to be registered. The Shareholders’ Agreement requires, among other things, that the Company use its commercially reasonable best efforts to have a registration statement covering such Registrable Securities to be declared effective. The registration rights granted pursuant to the Shareholders’ Agreement are not deemed to be liabilities; therefore, there has been no recognition in the Company’s consolidated financial statements of the registration rights granted pursuant to the Shareholders’ Agreement.

As of December 31, 2018, the Company has an effective Form S-3 registration statement, on file with the SEC, for an aggregate principal amount of $200.0 million in securities.

Shares reserved for issuance are composed of 300,000 (2017: 300,000) Class A ordinary shares in relation to share purchase options granted to a service provider and 5,000,000 (2017: 5,000,000) Class A ordinary shares reserved for the Company's stock incentive plan for eligible employees, directors and consultants. On April 26, 2017, our shareholders approved an amendment to our stock incentive plan to increase the number of Class A ordinary shares available for issuance by 1.5 million shares from 3.5 million to 5.0 million. As of December 31, 2018 and 2017, there were no remaining Class A ordinary shares available for future issuance relating to share purchase options granted to the service provider as all options granted to service providers had been exercised. As of December 31, 2018 1,122,170 (2017: 1,271,154) Class A ordinary shares remained available for future issuance under the Company's stock incentive plan. The stock incentive plan is administered by the Compensation Committee of the Board of Directors.

The Board has adopted a share repurchase plan. On April 25, 2018, the Board of Directors amended the share repurchase plan, with effect from July 1, 2018 and expiring on June 30, 2019, authorizing the Company to purchase up to 2.5 million of its Class A ordinary shares or securities convertible into Class A ordinary shares in the open market, through privately negotiated transactions or Rule 10b5-1 stock trading plans. The timing of such repurchases and actual number of shares repurchased will depend on a variety of factors including price, market conditions and applicable regulatory and corporate requirements. The share repurchase plan, which expires on June 30, 2019, does not require the Company to repurchase any specific number of shares and may be modified, suspended or terminated at any time without prior notice. During the year ended December 31, 2018, 1.2 million Class A ordinary shares were repurchased by the Company. As of December 31, 2018, 1.5 million shares remained available for repurchase under the share repurchase plan. Under the Companies Law of the Cayman Islands, the Company cannot hold treasury shares; therefore, all ordinary shares repurchased are canceled immediately upon repurchase.

The following table is a summary of voting ordinary shares issued and outstanding:

	2018		2017		2016	
	Class A	Class B	Class A	Class B	Class A	Class B
Balance – beginning of year	31,104,830	6,254,715	31,111,432	6,254,895	30,772,572	6,254,895
Issue of ordinary shares, net of forfeitures	205,384	—	129,530	—	338,860	—
Repurchase of ordinary shares	(1,180,000)	—	(136,312)	—	—	—
Class B shares converted to Class A shares	—	—	180	(180)	—	—
Balance – end of year	30,130,214	6,254,715	31,104,830	6,254,715	31,111,432	6,254,895

Additional paid-in capital includes the premium per share paid by the subscribing shareholders for Class A and B ordinary shares which have a par value of $0.10 each. It also includes share-based awards earned not yet issued.

Statutory Capital and Surplus

Greenlight Re is subject to the Cayman Islands' Insurance (Capital and Solvency) (Classes B, C, and D Insurers) Regulations, (2018 Revision) (the "Insurance Regulations"). The Insurance Regulations impose a Minimum Capital Requirement ("MCR") of $50.0 million and a Prescribed Capital Requirement ("PCR") on Greenlight Re which was $191.9 million as of December 31, 2018 (2017: $329.7 million). As of December 31, 2018, Greenlight Re's statutory capital and surplus of $514.8 million exceeded the MCR as well as the PCR. For the years ended December 31, 2018, 2017 and 2016, Greenlight Re's net income (loss) was $(330.3) million, $(38.2) million, and $44.8 million, respectively.

Greenlight Re is not required to prepare separate statutory financial statements for filing with CIMA and there were no material differences between Greenlight Re's GAAP capital, surplus and net income, and its statutory capital, surplus and net income as of December 31, 2018 and 2017.

As of December 31, 2018, the Company was not restricted from payment of dividends to the Company's shareholders. However, since most of the Company's capital and retained earnings are invested in its subsidiaries, a dividend from one or more of the Company's subsidiaries would likely be required in order to fund a dividend to the Company's shareholders. Any dividends declared and paid from Greenlight Re to the Company would require approval of CIMA. During the year ended December 31, 2018, no dividends (2017: $33.0 million, 2016: nil) were declared or paid by Greenlight Re to the Company. As of December 31, 2018 and 2017, $322.8 million and $432.5 million, respectively, of Greenlight Re's capital and surplus was available for distribution as dividends.

GRIL is obligated to maintain a minimum level of statutory capital. As of December 31, 2018 and 2017, GRIL met such requirements. As of December 31, 2018 and 2017, GRIL's statutory capital was $36.6 million and $52.9 million, respectively. As of December 31, 2018, GRIL's statutory minimum capital required under Solvency II was approximately $5.9 million (2017: $9.9 million). GRIL's statutory net income (loss) was $(15.4) million, $(3.7) million and $3.2 million for the years ended December 31, 2018, 2017 and 2016, respectively. The amount of dividends that GRIL is permitted to distribute is limited to its retained earnings and the Central Bank of Ireland has powers to intervene if a dividend payment were to lead to a breach of regulatory capital requirements. As of December 31, 2018 and 2017, none of GRIL's capital and surplus was available for distribution as dividends.

12. SHARE-BASED COMPENSATION

The Company has a stock incentive plan for directors, employees and consultants as detailed in Note 11 above.

Employee and Director Restricted Shares

For the year ended December 31, 2018, 160,595 (2017: 125,371, 2016: 153,648) Class A ordinary shares were issued to employees pursuant to the Company's stock incentive plan. The majority of these shares contain certain restrictions relating to, among other things, vesting, forfeiture in the event of termination of employment and transferability. The restricted shares cliff vest after three years from the date of issuance, subject to the grantee's continued service with the Company. During the vesting period, the holder of the restricted shares retains voting rights and is entitled to any dividends declared by the Company.

For the year ended December 31, 2018, 30,660 (2017: nil, 2016: nil) Class A ordinary shares were issued to the Company's Chief Executive Officer ("CEO") pursuant to the Company's stock incentive plan. These shares contain performance and service conditions and certain restrictions relating to, among other things, vesting, forfeiture in the event of termination of employment and transferability. The restricted shares cliff vest after 5 years from the date of issuance, subject to the performance condition being met and the grantee's continued service with the Company. During the vesting period, the holder of the restricted shares retains voting rights and is entitled to any dividends declared by the Company. The weighted average grant date fair value of these shares was $15.90 per share. As of December 31, 2018, the performance condition was not expected to be met and no compensation cost was recognized relating to these shares for the year ended December 31, 2018.

For the year ended December 31, 2018, the Company also issued to non-employee directors an aggregate of 54,720 (2017: 41,396, 2016: 39,288) restricted Class A ordinary shares as part of their remuneration for services to the Company. Each of these restricted shares issued to non-employee directors contains similar restrictions to those issued to employees and will vest on the earlier of the first anniversary of the date of the share issuance or the Company's next annual general meeting, subject to the grantee's continued service with the Company.

For the year ended December 31, 2018, 44,644 (2017: 46,943, 2016: 11,897) restricted shares were forfeited by employees who left the Company prior to the expiration of the applicable vesting periods. For the year ended December 31, 2018, in accordance with U.S. GAAP, $0.3 million stock compensation expense (2017: nil, 2016: $0.5 million) relating to the forfeited restricted shares was reversed. The restricted shares forfeited during the comparative year ended December 31, 2017 included 46,319 restricted shares relating to the Company's former Chief Executive Officer (the "former CEO") who resigned from the Company prior to the expiration of the applicable vesting periods. For the year ended December 31, 2017, no stock compensation expense was reversed relating to the former CEO's forfeited shares since the stock compensation relating to those restricted shares was reversed during the fourth quarter of 2016, when it was deemed likely that these restricted shares would be forfeited.

The Company recorded $2.9 million of share-based compensation expense, net of the reversal for forfeitures, relating to restricted shares for the year ended December 31, 2018 (2017: $3.3 million, 2016: $3.1 million). As of December 31, 2018, there was $2.6 million (2017: $3.5 million, 2016: $2.9 million) of unrecognized compensation cost relating to non-vested restricted shares which are expected to be recognized over a weighted average period of 1.6 years (2017: 1.6 years, 2016: 1.6 years). For the year ended December 31, 2018, the total fair value of restricted shares vested was $2.8 million (2017: $4.5 million, 2016: $3.1 million).

The following table summarizes the activity for unvested outstanding restricted share awards during the years ended December 31, 2018 and 2017:

	Number of non-vested restricted shares	Weighted average grant date fair value
Balance at December 31, 2016	365,432	$ 26.76
Granted	166,767	21.60
Vested	(153,746)	28.97
Forfeited	(46,943)	24.57
Balance at December 31, 2017	331,510	23.45
Granted	245,975	15.78
Vested	(100,384)	27.74
Forfeited	(44,644)	18.77
Balance at December 31, 2018	432,457	$ 18.58

Employee and Director Stock Options

For the year ended December 31, 2018, no Class A ordinary share purchase options were granted (2017 and 2016: 480,000 and 57,386, respectively). The Class A ordinary share purchase options granted to the Company's CEO in 2017 vest 16.7% each on the anniversary thereof in 2018, 2019, 2020, 2021, 2022 and 2023, and expire 10 years after the grant date. The grant date fair value of these options was $9.60 per share (2016: $8.71), based on the Black-Scholes option pricing model. In addition, for the year ended December 31, 2017, 42,250 Class A ordinary share purchase options were granted to the Company's former interim Chief Executive Officer, pursuant to his consulting agreement. These options vested 100% on their grant date. The weighted average grant date fair value of these options was $9.90 per share based on the Black-Scholes option pricing model.

The estimate of expected volatility for options granted during 2017 and 2016 was based on the daily historical trading data of the Company's Class A ordinary shares from the date that these shares commenced trading on May 24, 2007 to the grant date.

The Company has applied the following weighted average assumptions to the options pricing model:

	2018	2017	2016
Risk free rate	—%	2.32%	1.54%
Estimated volatility	—%	31.4%	32.4%
Expected term (in years)	0	10	10
Dividend yield	—%	—%	—%
Forfeiture rate	—%	—%	—%

The Board of Directors does not currently anticipate that any dividends will be declared during the expected term of the options. The Company uses graded vesting for expensing employee stock options. The total compensation cost expensed for the year ended December 31, 2018 was $1.5 million (2017: $1.3 million, 2016: $0.9 million). At December 31, 2018, the total compensation cost related to non-vested options not yet recognized was $2.2 million (2017: $3.7 million) to be recognized over a weighted average period of 2.9 years (2017: 3.3 years) assuming the grantee completes the service period for vesting of the options.

For the year ended December 31, 2018, no stock options were exercised by directors and employees (2017: 50,000, 2016: 421,000) resulting in no Class A ordinary shares being issued (2017: 5,011, 2016: 156,022, net of shares surrendered as a result of the cashless exercise of stock options). When stock options are granted, the Company reduces the corresponding number from the shares authorized for issuance as part of the Company's stock incentive plan.

Employee and director stock option activity during the years ended December 31, 2018, 2017 and 2016 was as follows:

	Number of options	Weighted average exercise price	Weighted average grant date fair value	Intrinsic value ($ in millions)	Weighted average remaining contractual term
Balance at December 31, 2015	906,991	$ 19.78	$ 8.53	$ 2.6	2.9 years
Granted	57,386	19.87	8.71		
Exercised	(421,000)	12.53	6.44	3.1	
Balance at December 31, 2016	543,377	25.40	10.17	0.5	4.7 years
Granted	522,250	21.25	9.63		
Exercised	(50,000)	19.60	10.18	0.1	
Balance at December 31, 2017	1,015,627	23.55	9.89	—	6.9 years
Expired	(80,000)	29.39	8.69		
Balance at December 31, 2018	935,627	$ 23.05	$ 10.00	$ —	6.4 years

The following table summarizes information about options exercisable for the periods indicated:

	December 31, 2018	December 31, 2017	December 31, 2016
Number of options exercisable	535,627	535,627	472,042
Weighted average exercise price	$ 24.43	$ 25.66	$ 25.73
Weighted average remaining contractual term	4.9	4.6	4.1
Intrinsic value ($ in millions)	$ —	$ —	$ 0.4

During the year ended December 31, 2018, 80,000 (2017: 113,585, 2016: 42,022) options vested which had a weighted average grant date fair value of $9.60 (2017: $10.29, 2016: $11.90).

Employee Restricted Stock Units

The Company issues restricted stock units ("RSUs") to certain employees as part of the stock incentive plan.

These shares contain restrictions relating to vesting, forfeiture in the event of termination of employment, transferability and other matters. Each RSU cliff vests after three years from the date of issuance, subject to the grantee's continued service with the Company. On the vesting date, the Company converts each RSU into one Class A ordinary share and issues new Class A ordinary shares from the shares authorized for issuance as part of the Company's stock incentive plan. For the year ended December 31, 2018, 28,301 (2017: 11,559, 2016: 7,444) RSUs were issued to employees pursuant to the Company's stock incentive plan.

The Company recorded $0.2 million of share-based compensation expense (recovery), net of forfeitures, relating to RSUs for the year ended December 31, 2018 (2017: $0.2 million, 2016: $(0.1) million). The recovery for the year ended December 31, 2016 was due to reversal of share-based compensation expense previously recorded on RSUs that were forfeited during 2016.

Employee RSU activity during the years ended December 31, 2018 and 2017 was as follows:

	Number of non-vested RSUs	Weighted average grant date fair value
Balance at December 31, 2016	15,934	$ 27.52
Granted	11,559	21.65
Vested	(4,695)	32.60
Balance at December 31, 2017	22,798	23.50
Granted	28,301	15.90
Vested	(4,053)	32.21
Forfeited	(648)	21.65
Balance at December 31, 2018	46,398	$ 18.13

For the years ended December 31, 2018, 2017 and 2016, the combined stock compensation expense (net of forfeitures), which was included in general and administrative expenses, was $4.6 million, $4.9 million and $4.0 million, respectively.

13. NET INVESTMENT INCOME (LOSS)

A summary of net investment income (loss) for the years ended December 31, 2018, 2017 and 2016 is as follows:

	2018	2017	2016
		($ in thousands)	
Realized gains (losses)	$ (236,887)	$ 87,618	$ (113,836)
Change in unrealized gains and losses	(32,597)	(41,444)	209,993
Investment related foreign exchange gains (losses)	938	(7,653)	2,988
Interest and dividend income, net of withholding taxes	35,468	25,510	23,915
Interest, dividend and other expenses	(17,987)	(23,937)	(22,334)
Investment advisor compensation on joint venture	(11,221)	(19,863)	(24,543)
Income (loss) from equity method investment	(247)	—	—
Net investment income (loss)	$ (262,533)	$ 20,231	$ 76,183
Income (loss) from investments in related party investment fund	$ (60,573)	$ —	$ —
Total investment related income (loss)	$ (323,106)	$ 20,231	$ 76,183

Income (loss) from investments in related party investment fund reflects the equity in earnings (loss) of SILP (see Note 3).

Investment returns are calculated monthly based on cash flows into or out of the investment accounts and compounded to calculate the annual returns generated by the Company’s investments managed by DME Advisors. Effective from September 1, 2018, the investment return is calculated by dividing the investment income or loss (net of fees and expenses) by the Investment Portfolio. For the year ended December 31, 2018, the total investment related loss includes a loss of 30.3% on the investments managed by DME Advisors. This return compares to a gain of 1.5% and a gain of 7.2% reported for the years ended December 31, 2017 and 2016, respectively.

14. TAXATION

The Company and Greenlight Re are each domiciled in the Cayman Islands and under current Cayman Islands law, no corporate entity, including the Company and Greenlight Re, is obligated to pay taxes in the Cayman Islands on either income or capital gains. Each of the Company and Greenlight Re intends to conduct all of its operations in a manner that will not cause it to be treated as engaging in a trade or business within the United States and will not cause it to be subject to current U.S. federal income taxation on its net income. However, because there are no definitive standards provided by the Internal Revenue Code, regulations or court decisions as to the specific activities that constitute being engaged in the conduct of a trade or business within the United States, and as any such determination is essentially factual in nature, there can be no assurance that the IRS will not successfully assert that the Company or Greenlight Re is engaged in a trade or business within the U.S.

Verdant is incorporated in Delaware, and therefore is subject to taxes in accordance with the U.S. federal rates and regulations prescribed by the IRS. Verdant's taxable income is taxed at a marginal tax rate of 21%. GRIL is incorporated in Ireland and, therefore, is subject to the Irish corporation tax. GRIL is taxed at a rate of 12.5% on its trading income.

As of December 31, 2018, a gross deferred tax asset of $3.6 million (2017: $1.7 million) and a deferred tax asset valuation allowance of $2.2 million (2017: nil) was recorded by the Company. The net deferred tax asset is included in the caption "Other assets" in the Company's consolidated balance sheets. Based on the timing of the reversal of the temporary differences and likelihood of generating sufficient taxable income to realize the future tax benefit, management believes it is more likely than not that the recorded deferred tax asset (net of the valuation allowance) will be fully realized in the future. The Company currently believes that it has no uncertain tax positions which, if challenged, would cause a material change to the Company's consolidated financial statements.

At December 31, 2018, GRIL had a net operating loss carry forward of $28.6 million (2017: $13.9 million) which can be carried forward indefinitely. At December 31, 2018 and 2017, no taxes recoverable were included in the Company's consolidated balance sheets.

At December 31, 2018, Verdant had a net operating loss carry forward of $1.7 million which can be carried forward for a period of 20 years from the year the loss occurred and therefore will expire in 2033. The deferred tax asset associated with the net operating loss carried forward, has been offset by a valuation allowance as management does not anticipate that the carried forward amount will be realized.

The following table sets forth our current and deferred income tax benefit (expense) on a consolidated basis for the years ended December 31, 2018, 2017 and 2016:

	2018	2017	2016
	($ in thousands)		
Current tax (expense) benefit	$ 1,840	$ 465	$ (492)
Deferred tax (expense) benefit	(4)	(14)	(17)
Increase in deferred tax valuation allowance	(2,168)	—	—
Income tax (expense) benefit	$ (332)	$ 451	$ (509)

The Company has not taken any tax positions that are subject to uncertainty or that are reasonably likely to have a material impact to the Company, Greenlight Re, GRIL or Verdant.

Federal Excise Taxes

The United States imposes an excise tax on reinsurance premiums paid to non-U.S. insurers or reinsurers with respect to risks located in the United States. The rate of tax, unless exempted or reduced by an applicable U.S. tax treaty, is 1.0% for all reinsurance premiums. The Company incurs federal excise taxes on certain of its reinsurance transactions, including amounts ceded through intercompany transactions. For the years ended 2018, 2017 and 2016, the Company incurred approximately $3.6 million, $5.0 million and $3.9 million, respectively, of federal excise taxes, net of any refunds received. These amounts are included in the caption "Acquisition costs" in the Company's consolidated statements of operations.

15. RELATED PARTY TRANSACTIONS

Investment Advisory Agreement

DME, DME II and DME Advisors are related to the Company and each is an affiliate of David Einhorn, Chairman of the Company's Board of Directors.

Prior to September 1, 2018, the Company and its reinsurance subsidiaries were party to the venture agreement with DME Advisors under which the Company, its reinsurance subsidiaries and DME were participants of the Joint Venture for the purpose of managing certain jointly held assets. In addition, prior to September 1, 2018, the Company, its reinsurance subsidiaries and DME had entered into a separate investment advisory agreement with DME Advisors (the "advisory agreement"). On September 1, 2018, the Company, DME and DME Advisors entered into the Termination Agreement to terminate the Joint Venture and the advisory agreement on January 2, 2019 .

On September 1, 2018, the Company entered into the SILP LPA with DME II, as General Partner. DME II receives a performance allocation equal to (with capitalized terms having the meaning provided under the SILP LPA) (a) 10% of the portion of the Positive Performance Change for each limited partner's capital account that is less than or equal to the positive balance in such limited partner's Carryforward Account, plus (b) 20% of the portion of the Positive Performance Change for each limited partner's capital account that exceeds the positive balance in such limited partner's Carryforward Account. The Carryforward Account for Greenlight Re and GRIL include the amount of losses that were to be recouped under the Joint Venture as well as any loss generated on the assets invested in SILP, subject to adjustments for redemptions. No performance allocation was made for the year ended December 31, 2018 due to the investment losses during the period. The loss carry forward provision contained in the SILP LPA allows DME II to earn reduced performance allocation of 10% of profits in any year subsequent to any years in which SILP has incurred a loss, until all losses are recouped and an additional amount equal to 150% of the loss is earned.

On September 1, 2018, SILP entered into a SILP investment advisory agreement ("IAA") with DME Advisors which entitles DME Advisors to a monthly management fee equal to 0.125% (1.5% on an annual basis) of each limited partner's Investment Portfolio. The IAA has an initial term ending on August 31, 2023 subject to an automatic extension for successive three-year terms. For the year ended December 31, 2018, management fees paid by SILP to DME Advisors of $3.1 million were included in the caption "Loss from investment in related party" in the Company's statement of operations.

Pursuant to the venture agreement, performance allocation equal to 20% of the net investment income of the Company's share of the Joint Venture was allocated, subject to a loss carry forward provision, to DME's account. The loss carry forward provision requires DME to earn a reduced performance allocation of 10% on net investment income in any year subsequent to the year in which the investment account incurred a loss, until all the losses were recouped and an additional amount equal to 150% of the aggregate investment loss was earned. DME was not entitled to earn a performance allocation in a year in which the investment portfolio under the Joint Venture incurred a loss. For the year ended December 31, 2018, no performance allocation was deducted due to the investment loss (2017: $2.1 million, 2016: $8.2 million).

Pursuant to the advisory agreement, a monthly management fee, equal to 0.125% (1.5% on an annual basis) of the Company's investment account managed by DME Advisors, was paid to DME Advisors. Included in the caption "Net investment income (loss)" in the Company's consolidated balance sheets for the year ended December 31, 2018 were management fees of $11.2 million (2017: $17.8 million, 2016: $16.3 million) relating to the Joint Venture. The management fees have been fully paid as of December 31, 2018.

Pursuant to the venture agreement, advisory agreement, SILP LPA and the IAA, the Company has agreed to indemnify DME, DME II and DME Advisors for any expense, loss, liability, or damage arising out of any claim asserted or threatened in connection with DME Advisors serving as the Company's or SILP's investment advisor. The Company will reimburse DME, DME II and DME Advisors for reasonable costs and expenses of investigating and/or defending such claims, provided such claims were not caused due to gross negligence, breach of contract or misrepresentation by DME, DME II or DME Advisors. There were no indemnification amounts incurred by the Company during any of the periods presented.

Non-controlling Interest in Related Party Joint Venture

Non-controlling interests in related party joint venture represents DME's share of the jointly held assets under the venture agreement. A portion of the non-controlling interest is subject to contractual withdrawal rights whereby DME, at its sole discretion, can withdraw its interest above the minimum capital required to be maintained in its capital accounts. This interest is recorded on the Company's consolidated balance sheets under the caption "Redeemable non-controlling interest in related party joint venture." The remaining portion that has no withdrawal rights associated with it, is recorded under the caption "Non-controlling interest in related party joint venture" within the equity section on the Company's consolidated balance sheet.

The following table is a reconciliation of the beginning and ending carrying amounts of redeemable non-controlling interest in related party, non-controlling interest in related party and total non-controlling interest in related party for the years ended December 31, 2018, 2017 and 2016:

	Redeemable non-controlling interest in related party joint venture			**Non-controlling interest in related party joint venture**			**Total non-controlling interest in related party joint venture**		
	Year ended December 31			**Year ended December 31**			**Year ended December 31**		
	2018	**2017**	**2016**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
Opening balance	$ 7,169	$ 5,884	$ 12,265	$ 12,933	$ 11,561	$ 11,118	$ 20,102	$ 17,445	$ 23,383
Income (loss) attributed to non-controlling interest	(2,680)	201	1,375	(1,595)	378	443	(4,275)	578	1,818
Net contribution into (withdrawal from) non-controlling interest	(2,797)	1,084	(7,756)	(10,853)	994	—	(13,650)	2,079	(7,756)
Ending balance	$ 1,692	$ 7,169	$ 5,884	$ 485	$ 12,933	$ 11,561	$ 2,177	$ 20,102	$ 17,445

Green Brick Partners, Inc.

David Einhorn also serves as the Chairman of the Board of Directors of Green Brick Partners, Inc. (“GRBK”), a publicly traded company. As of December 31, 2018, $25.1 million (2017: $39.2 million) of GRBK listed equities were included on the balance sheet as “equity securities, trading, at fair value”. The Company, along with certain affiliates of DME Advisors, collectively own 47.6% of the issued and outstanding common shares of GRBK. Under applicable securities laws, DME Advisors may be limited at times in its ability to trade GRBK shares on behalf of the Company.

Service Agreement

The Company has entered into a service agreement with DME Advisors, pursuant to which DME Advisors provides certain investor relations services to the Company for compensation of five thousand dollars per month (plus expenses). The agreement is automatically renewed annually until terminated by either the Company or DME Advisors for any reason with 30 days prior written notice to the other party.

Collateral Assets Investment Management Agreement

Effective January 1, 2019, the Company (and its subsidiaries) entered into a collateral assets investment management agreement (the “CMA”) with DME Advisors, pursuant to which DME Advisors will manage certain assets of the Company that are not subject to the SILP LPA and are held by the Company to provide collateral required by the cedents in the form of trust accounts and letters of credit. In accordance with the CMA, DME Advisors receives no fees and is required to comply with the collateral investment guidelines. The CMA can be terminated by any of the parties upon 30 days’ prior written notice to the other parties.

16. COMMITMENTS AND CONTINGENCIES

Letters of Credit and Trusts

At December 31, 2018, the Company had the following letter of credit facilities, which automatically renew each year unless terminated by either party in accordance with the applicable required notice period:

	Facility	Termination Date	Notice period required for termination
	($ in thousands)		
Butterfield Bank (Cayman) Limited	14,900	June 30, 2019	90 days prior to termination date
Citibank Europe plc	400,000	October 11, 2019	120 days prior to termination date
	$ 414,900		

During 2018, the Butterfield Bank facility was decreased from $100.0 million to $14.9 million. As of December 31, 2018, an aggregate amount of $208.3 million (2017: $188.5 million) in letters of credit were issued under the above facilities. As of December 31, 2018, total cash and cash equivalents with a fair value in the aggregate of $221.7 million (2017: equity securities and cash and cash equivalents of $200.4 million) were pledged as collateral against the letters of credit issued and included as “restricted cash and cash equivalents” in the consolidated balance sheets (also see Note 7). Each of the facilities contain customary events of default and restrictive covenants, including but not limited to, limitations on liens on collateral, transactions with affiliates, mergers and sales of assets, as well as solvency and maintenance of certain minimum pledged equity requirements, and restricts issuance of any debt without the consent of the letter of credit provider. Additionally, if an event of default exists, as defined in the letter of credit facilities, Greenlight Re will be prohibited from paying dividends to its parent company. The Company was in compliance with all the covenants of each of these facilities as of December 31, 2018 and 2017.

In addition to the letters of credit, the Company has established regulatory trust arrangements for certain cedents. As of December 31, 2018, collateral of $463.4 million (2017: $377.9 million) was provided to cedents in the form of regulatory trust accounts and included as “restricted cash and cash equivalents” in the consolidated balance sheets.

Operating Lease Obligations

Greenlight Re has entered into lease agreements for office space in the Cayman Islands. Under the terms of the lease agreements, Greenlight Re is committed to annual rent payments ranging from $0.3 million at inception to $0.5 million at lease termination. The leases expired on June 30, 2018. The Company is in negotiations with the lessor for renewal of the lease and meanwhile has agreed to a monthly lease until June 30, 2019.

GRIL has entered into a lease agreement for office space in Dublin, Ireland. Under the terms of this lease agreement, GRIL is committed to minimum annual rent payments denominated in Euros approximating €0.1 million until May 2021, and adjusted to the prevailing market rates for each of the two subsequent five-year terms. GRIL has the option to terminate the lease agreement in 2021. Included in the schedule below are the net minimum lease payment obligations relating to this lease as of December 31, 2018.

The total rent expense related to leased office space for the year ended December 31, 2018 was $0.6 million, (2017: $0.6 million, 2016: $0.6 million).

Loan Facility

From time to time, the Company makes investments in the form of equity or debt in private entities as part of its strategic investments and innovation initiatives. As part of the Company's participation in such investments, the Company may make funding commitments. As of December 31, 2018, the Company had committed to a loan facility (the "Loan Facility") of $6.0 million to AccuRisk (see Note 4). As of December 31, 2018, $5.8 million of the Loan Facility was available to AccuRisk. Subsequent to December 31, 2018, AccuRisk borrowed $5.3 million under the Loan Facility (see Note 4). Included in the schedule below is the minimum obligation relating to the Loan Facility as of December 31, 2018 on the assumption that the entire Loan Facility will be drawn by AccuRisk during 2019.

Schedule of Commitments and Contingencies

The following is a schedule of future minimum payments required under the above commitments:

	2019	2020	2021	2022	2023	Thereafter	Total
				($ in thousands)			
Operating lease obligations	$ 169	$ 169	$ 63	$ —	$ —	$ —	$ 401
Interest and convertible note payable	4,000	4,000	4,000	4,000	102,400	—	118,400
Loan facility	5,750	—	—	—	—	—	5,750
	$ 9,919	$ 4,169	$ 4,063	$ 4,000	$ 102,400	$ —	$ 124,551

Litigation

From time to time in the normal course of business, the Company may be involved in formal and informal dispute resolution procedures, which may include arbitration or litigation, the outcomes of which determine the rights and obligations under the Company's reinsurance contracts and other contractual agreements. In some disputes, the Company may seek to enforce its rights under an agreement or to collect funds owing to it. In other matters, the Company may resist attempts by others to collect funds or enforce alleged rights. While the final outcome of legal disputes cannot be predicted with certainty, the Company does not believe that any existing dispute, when finally resolved, will have a material adverse effect on the Company's business, financial condition or operating results.

17. SEGMENT REPORTING

The Company manages its business on the basis of one operating segment, Property & Casualty Reinsurance.

Substantially all of the business is sourced through reinsurance brokers. The following table sets forth the premiums sourced from brokers who each accounted for more than 10% of the Company's gross written premiums:

	Year ended December 31					
	2018		2017		2016	
			($ in thousands)			
Guy Carpenter	$ 376,696	66.4%	$ 366,390	52.9%	$ 274,816	51.3%
Aon Benfield	70,554	12.4	125,320	18.1	104,684	19.5
	$ 447,250	78.8%	$ 491,710	71.0%	$ 379,500	70.8%

The following tables provide a breakdown of the Company's gross premiums written by line and class of business, and by geographic area of risks insured for the periods indicated:

Gross Premiums Written by Line of Business

	Year ended December 31					
	2018		2017		2016	
	($ in thousands)					
Property						
Commercial	$ 10,487	1.8%	$ 12,256	1.8%	$ 9,419	1.8%
Motor	76,425	13.5	71,188	10.2	38,428	7.2
Personal	14,118	2.5	49,491	7.2	46,327	8.6
Total Property	101,030	17.8	132,935	19.2	94,174	17.6
Casualty						
General Liability	1,429	0.3	4,753	0.7	11,746	2.2
Motor Liability	291,690	51.4	281,551	40.6	223,620	41.7
Professional Liability	3,068	0.5	8,703	1.3	11,036	2.1
Workers' Compensation	24,101	4.3	24,803	3.6	8,743	1.6
Multi-line *	57,497	10.1	123,340	17.8	95,055	17.7
Total Casualty	377,785	66.6	443,150	64.0	350,200	65.3
Other						
Accident & Health	69,605	12.2	66,800	9.6	52,114	9.6
Financial	16,611	2.9	48,380	7.0	34,034	6.4
Marine	394	0.1	—	—	1,496	0.3
Other Specialty	2,106	0.4	1,386	0.2	4,054	0.8
Total Other	88,716	15.6	116,566	16.8	91,698	17.1
	$ 567,531	100.0%	$ 692,651	100.0%	$ 536,072	100.0%

(*) See Note 1. ORGANIZATION AND BASIS OF PRESENTATION. The prior period comparative information has been reclassified to conform to the current period presentation.

Gross Premiums Written by Geographic Area of Risks Insured

	Year ended December 31					
	2018		2017		2016	
	($ in thousands)					
U.S. and Caribbean	$ 507,705	89.5%	$ 606,510	87.6%	$ 432,144	80.6%
Worldwide [(1)]	59,366	10.5	86,714	12.5	97,810	18.2
Europe [(2)]	506	—	(612)	(0.1)	6,250	1.2
Asia [(2)]	(46)	—	39	—	(132)	—
	$ 567,531	100.0%	$ 692,651	100.0%	$ 536,072	100.0%

[(1)] "Worldwide" is composed of contracts that reinsure risks in more than one geographic area and do not specifically exclude the U.S.

[(2)] The negative balance represents reversal of premiums due to premium adjustments, termination of contracts or premium returned upon novation or commutation of contracts.

18. QUARTERLY FINANCIAL RESULTS (UNAUDITED)

The following table presents the quarterly financial results for each of the quarters ended during 2018:

	2018 Quarter ended			
	March 31	**June 30**	**September 30**	**December 31**
	($ in thousands, except per share amounts)			
Revenues				
Gross premiums written	$ 175,125	$ 142,109	$ 115,154	$ 135,143
Gross premiums ceded	(29,843)	(27,237)	(15,456)	(30,252)
Net premiums written	145,282	114,872	99,698	104,891
Change in net unearned premium reserves	562	13,944	14,406	14,708
Net premiums earned	145,844	128,816	114,104	119,599
Income (loss) from investment in related party investment fund	—	—	(10,025)	(50,548)
Net investment income (loss)	(145,216)	(40,656)	(70,851)	(5,810)
Other income (expense), net	(487)	(76)	(683)	(982)
Total revenues	141	88,084	32,545	62,259
Expenses				
Loss and loss adjustment expenses incurred, net	95,824	84,815	86,780	96,454
Acquisition costs, net	44,209	34,623	28,331	38,312
General and administrative expenses	5,956	6,958	7,136	5,123
Interest expense	—	—	927	1,578
Total expenses	145,989	126,396	123,174	141,467
Income (loss) before income tax expense	(145,848)	(38,312)	(90,629)	(79,208)
Income tax (expense) benefit	770	323	355	(1,780)
Net income (loss)	(145,078)	(37,989)	(90,274)	(80,988)
Loss (income) attributable to non-controlling interest in related party joint venture	2,326	621	1,159	169
Net income (loss) attributable to Greenlight Capital Re. Ltd.	$ (142,752)	$ (37,368)	$ (89,115)	$ (80,819)
Earnings (loss) per share				
Basic	$ (3.85)	$ (1.01)	$ (2.48)	$ (2.25)
Diluted	$ (3.85)	$ (1.01)	$ (2.48)	$ (2.25)
Weighted average number of ordinary shares used in the determination of earnings and loss per share				
Basic	37,087,169	36,952,472	35,952,472	35,952,472
Diluted	37,087,169	36,952,472	35,952,472	35,952,472

The following table presents the quarterly financial results for each of the quarters ended during 2017:

	2017			
	Quarter ended			
	March 31	**June 30**	**September 30**	**December 31**
	($ in thousands)			
Revenues				
Gross premiums written	$ 197,214	$ 174,889	$ 181,588	$ 138,960
Gross premiums ceded	(3,426)	(2,523)	(7,931)	(42,707)
Net premiums written	193,788	172,366	173,657	96,253
Change in net unearned premium reserves	(41,886)	(12,042)	(964)	44,832
Net premiums earned	151,902	160,324	172,693	141,085
Net investment income (loss)	11,618	(39,149)	63,976	(16,214)
Other income (expense), net	(7)	303	(520)	(336)
Total revenues	163,513	121,478	236,149	124,535
Expenses				
Loss and loss adjustment expenses incurred, net	104,812	106,016	168,918	122,658
Acquisition costs, net	43,211	45,429	38,011	35,089
General and administrative expenses	6,743	6,347	8,202	5,064
Total expenses	154,766	157,792	215,131	162,811
Income (loss) before income tax	8,747	(36,314)	21,018	(38,276)
Income tax (expense) benefit	(121)	295	(65)	342
Net income (loss)	8,626	(36,019)	20,953	(37,934)
Loss (income) attributable to non-controlling interest in related party joint venture	(252)	550	(1,078)	202
Net income (loss) attributable to Greenlight Capital Re, Ltd.	$ 8,374	$ (35,469)	$ 19,875	$ (37,732)
Earnings (loss) per share				
Basic	$ 0.22	$ (0.96)	$ 0.53	$ (1.02)
Diluted	$ 0.22	$ (0.96)	$ 0.53	$ (1.02)
Weighted average number of ordinary shares used in the determination of earnings and loss per share				
Basic	37,341,338	37,025,703	37,345,985	37,023,895
Diluted	37,376,649	37,025,703	37,375,273	37,023,895

SCHEDULE I

GREENLIGHT CAPITAL RE, LTD.
SUMMARY OF INVESTMENTS — OTHER THAN INVESTMENTS IN RELATED PARTIES
AS OF DECEMBER 31, 2018

(expressed in thousands of U.S. dollars)

Type of Investment	Cost	Fair Value	Balance Sheet Value
		($ in thousands)	
Equity securities, trading, at fair value			
Equities – listed	50,521	36,908	36,908
Total investments, trading	$ 50,521	$ 36,908	$ 36,908
Other investments, at fair value			
Private investments and unlisted equity funds	$ 6,672	$ 6,405	$ 6,405
Investment accounted for under the equity method	NA	5,003	5,003
Total other investments, at fair value	6,672	11,408	11,408
Total investments	$ 57,193	$ 48,316	$ 48,316

SCHEDULE II

GREENLIGHT CAPITAL RE, LTD.
CONDENSED FINANCIAL INFORMATION OF REGISTRANT
CONDENSED BALANCE SHEETS — PARENT COMPANY ONLY

(expressed in thousands of U.S. dollars)

	December 31, 2018	December 31, 2017
	($ in thousands)	
Assets		
Other investments	$ 800	$ —
Cash and cash equivalents	3	84
Investment in subsidiaries	553,323	815,009
Notes receivable, net	21,965	15,355
Due from subsidiaries	—	876
Total assets	$ 576,091	$ 831,324
Liabilities and equity		
Liabilities		
Convertible senior notes payable, net of deferred costs	$ 91,185	$ —
Due to subsidiaries	7,619	—
Total liabilities	98,804	—
Shareholders’ equity		
Share capital	3,638	3,736
Additional paid-in capital	499,726	503,316
Retained earnings (deficit)	(26,077)	324,272
Total shareholders’ equity	477,287	831,324
Total liabilities and equity	$ 576,091	$ 831,324

GREENLIGHT CAPITAL RE, LTD.
CONDENSED FINANCIAL INFORMATION OF REGISTRANT
CONDENSED STATEMENT OF OPERATIONS — PARENT COMPANY ONLY

(expressed in thousands of U.S. dollars)

	Year ended December 31		
	2018	2017	2016
	($ in thousands)		
Revenue			
Net investment income	$ 1,574	$ 34,487	$ 952
Total revenues	1,574	34,487	952
Expenses			
General and administrative expenses	4,445	4,691	4,042
Interest expense	2,505	—	—
Total expenses	6,950	4,691	4,042
Net income (loss) before equity in earnings of consolidated subsidiaries	(5,376)	29,796	(3,090)
Equity in earnings of consolidated subsidiaries	(344,678)	(74,748)	47,971
Consolidated net income (loss)	$ (350,054)	$ (44,952)	$ 44,881

GREENLIGHT CAPITAL RE, LTD.
CONDENSED FINANCIAL INFORMATION OF REGISTRANT
CONDENSED STATEMENTS OF CASH FLOWS — PARENT COMPANY ONLY

(expressed in thousands of U.S. dollars)

	Year Ended December 31		
	2018	2017	2016
	($ in thousands)		
Cash provided by (used in) operating activities			
Net income (loss)	$ (350,054)	$ (44,952)	$ 44,881
Adjustments to reconcile net income or loss to net cash provided by (used in) operating activities			
Equity in earnings of consolidated subsidiaries	344,678	74,748	(47,971)
Share-based compensation expense, net of forfeitures	4,382	4,691	4,042
Amortization and interest expense	2,505	0	0
Net change in			
Due from subsidiaries	876	(876)	—
Due to subsidiaries	7,619	(29,023)	12,037
Net cash provided by (used in) operating activities	10,006	4,588	12,989
Investing activities			
Purchase of investments	(800)	—	—
Change in note receivable	(6,610)	(191)	(12,989)
Contributed surplus to subsidiaries, net	(82,750)	(1,500)	—
Net cash (used in) provided by investing activities	(90,160)	(1,691)	(12,989)
Financing activities			
Net proceeds from issuance of convertible senior notes payable, net of costs	96,576	—	—
Repurchase of Class A ordinary shares	(16,503)	(2,819)	—
Net cash provided by (used in) financing activities	80,073	(2,819)	—
Net increase (decrease) in cash and cash equivalents	(81)	78	—
Cash and cash equivalents at beginning of the year	84	6	6
Cash and cash equivalents at end of the year	$ 3	$ 84	$ 6
Supplementary information			
Non cash consideration from (to) subsidiaries, net	$ (242)	$ (162)	$ 72

SCHEDULE III

GREENLIGHT CAPITAL RE, LTD.
SUPPLEMENTARY INSURANCE INFORMATION
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016

(expressed in thousands of U.S. dollars)

Year	Segment	Deferred acquisition costs, net	Reserves for losses and loss adjustment expenses	Unearned premiums – gross	Net premiums earned	Total investment related income (loss)	Net losses, and loss adjustment expenses	Amortization of deferred acquisition costs	Other operating expenses	Gross premiums written
2018	Property & Casualty	$ 49,929	$ 482,662	$ 211,789	$ 508,363	$ (323,106)	$ 363,873	$ 145,475	$ 25,173	$ 567,531
2017	Property & Casualty	$ 62,350	$ 464,380	$ 255,818	$ 626,004	$ 20,231	$ 502,404	$ 161,740	$ 26,356	$ 692,651
2016	Property & Casualty	$ 61,022	$ 306,641	$ 222,527	$ 513,118	$ 76,183	$ 380,815	$ 134,534	$ 25,808	$ 536,072

SCHEDULE IV

GREENLIGHT CAPITAL RE, LTD.
SUPPLEMENTARY REINSURANCE INFORMATION
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016

(expressed in thousands of U.S. dollars)

Year	Segment	Direct gross premiums	Premiums ceded to other companies	Premiums assumed from other companies	Net written premiums	Percentage of amount assumed to net
2018	Property & Casualty	$ —	$ 102,788	$ 567,531	$ 464,743	122%
2017	Property & Casualty	$ —	$ 56,587	$ 692,651	$ 636,064	109%
2016	Property & Casualty	$ —	$ 10,015	$ 536,072	$ 526,057	102%