April 26, 2018

Report of Independent Auditors

To the Board of Directors and Shareholder of Chubb Bermuda Insurance Ltd.

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

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

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

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

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

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CHUBB BERMUDA INSURANCE LTD. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 2017 AND 2016

CHUBB BERMUDA INSURANCE LTD. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
December 31, 2017 and 2016

	2017	2016
	(in thousands of U.S. dollars, except share and per share data)	
Assets		
Investments		
Fixed maturities available for sale, at fair value (amortized cost - $3,220,874 and $3,029,369)	$ 3,315,664	$ 3,108,103
Fixed maturities held to maturity, at amortized cost (fair value - $1,568 and $2,138)	1,542	2,125
Equity securities, at fair value (cost - $1,758 and $2,684)	2,861	4,249
Short-term investments, at fair value (cost - $236,727 and $206,539)	236,735	206,539
Other investments (cost - $716,506 and $616,412)	796,442	699,938
Total investments	4,353,244	4,020,954
Cash	180,944	123,687
Securities lending collateral	189,098	104,452
Accrued investment income	38,758	38,371
Insurance and reinsurance balances receivable	94,864	97,276
Reinsurance recoverable on losses and loss expenses	587,322	562,172
Deferred policy acquisition costs	1,110	3,134
Value of reinsurance business assumed	16,098	17,604
Prepaid reinsurance premiums	73,708	66,007
Amounts due from parent and affiliates	162,920	167,576
Investment in partially-owned insurance company	9,143	8,350
Other assets	83,360	111,205
Total assets	$ 5,790,569	$ 5,320,788
Liabilities		
Unpaid losses and loss expenses	$ 2,039,185	$ 2,017,479
Unearned premiums	240,727	224,363
Insurance and reinsurance balances payable	90,111	87,168
Deposit liabilities	191,212	193,123
Securities lending payable	189,098	104,452
Payable for securities purchased	10,855	15,300
Accounts payable, accrued expenses, and other liabilities	23,313	36,417
Amounts due to parent and affiliates	63,863	51,586
Total liabilities	2,848,364	2,729,888
Shareholder's equity		
Common shares ($1.00 par value, 1,250,000 shares authorized, issued and outstanding)	1,250	1,250
Additional paid-in capital	1,881,217	1,881,217
Retained earnings	893,323	554,226
Accumulated other comprehensive income	166,415	154,207
Total shareholder's equity	2,942,205	2,590,900
Total liabilities and shareholder's equity	$ 5,790,569	$ 5,320,788

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

CHUBB BERMUDA INSURANCE LTD. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
For the years ended December 31, 2017 and 2016

	2017	2016
	(in thousands of U.S. dollars)	
Revenues		
Gross premiums written	$ 456,616	$ 446,510
Reinsurance premiums ceded	(143,780)	(139,347)
Net premiums written	312,836	307,163
(Increase)/Decrease in unearned premiums	(8,663)	(4,273)
Net premiums earned	304,173	302,890
Net investment income	162,659	157,644
Net realized losses	(12,124)	(62,520)
Other income	120,866	74,642
Total revenues	575,574	472,656
Expenses		
Losses and loss expenses	110,216	84,132
Policy acquisition costs	11,128	9,618
Administrative expenses	44,892	49,007
Total expenses	166,236	142,757
Income before income tax	409,338	329,899
Income tax expense	(241)	(496)
Net income	$ 409,097	$ 329,403
Other comprehensive income		
Unrealized appreciation and other arising during the year	$ 5,783	$ 57,318
Reclassification adjustment for net realized losses included in net income	6,636	66,764
Unrealized depreciation from deconsolidation of subsidiary	-	(7,945)
Other comprehensive income, before income tax	12,419	116,137
Income tax (expense) benefit related to other comprehensive income items	(211)	753
Other comprehensive income	12,208	116,890
Comprehensive income	$ 421,305	$ 446,293

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

CHUBB BERMUDA INSURANCE LTD. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDER'S EQUITY
For the years ended December 31, 2017 and 2016

	2017	2016
	(in thousands of U.S. dollars)	
Common shares		
Balance – beginning of year and end of year	$ 1,250	$ 1,250
Additional paid-in capital		
Balance – beginning of year and end of year	1,881,217	1,881,217
Retained earnings		
Balance – beginning of year	554,226	354,335
Dividends	(70,000)	(129,512)
Net income	409,097	329,403
Balance – end of year	893,323	554,226
Accumulated other comprehensive income		
Net unrealized appreciation on investments and other		
Balance – beginning of year	154,207	37,317
Other comprehensive income	12,208	116,890
Balance – end of year	166,415	154,207
Total shareholder's equity	$ 2,942,205	$ 2,590,900

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

CHUBB BERMUDA INSURANCE LTD. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
For the years ended December 31, 2017 and 2016

	2017	2016
	(in thousands of U.S. dollars)	
Cash flows from operating activities		
Net income	$ 409,097	$ 329,403
Adjustments to reconcile net income to net cash flows from operating activities:		
Net realized losses	12,124	62,520
Amortization of premium (discount) on fixed maturities	(7,184)	(7,448)
Equity earnings, net of dividends received	(100,866)	(34,682)
Accrued investment income	(390)	2,642
Insurance and reinsurance balances receivable	2,559	37,618
Deferred policy acquisition costs	2,024	877
Value of reinsurance business assumed	1,506	1,587
Unpaid losses and loss expenses	(3,764)	1,675
Unearned premiums	8,663	4,273
Insurance and reinsurance balances payable	998	(41,716)
Accounts payable, accrued expenses, and other liabilities	(13,221)	(6,286)
Other	11,290	8,486
Net cash flows from operating activities	$ 322,836	$ 358,949
Cash flows from investing activities		
Purchases of fixed maturities available for sale	(1,050,151)	(1,226,608)
Purchases of equity securities	(451)	(3,545)
Sales of fixed maturities available for sale	337,310	848,211
Sales of equity securities	751	2,677
Maturities and redemptions of fixed maturities available for sale	523,871	516,230
Maturities and redemptions of fixed maturities held to maturity	585	953
Net settlements of investment derivatives	(3,956)	675
Distribution of cash from deconsolidation of wholly owned subsidiary	-	(10,981)
Net cash flows (used for) from investing activities	$ (192,041)	$ 127,612
Cash flows from financing activities		
Amount paid to parent company and affiliates, net	(2,283)	(134)
Dividends paid	(70,000)	(588,300)
Net cash flows (used for) financing activities	$ (72,283)	$ (588,434)
Effect of foreign currency rate changes on cash and cash equivalents	(1,255)	(1,065)
Net increase (decrease) in cash	$ 57,257	$ (102,938)
Cash – beginning of year	123,687	226,625
Cash – end of year	$ 180,944	$ 123,687

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

1. General

Chubb Bermuda Insurance Ltd. (collectively the Company, we, or our) is an indirect wholly owned subsidiary of Chubb Limited. On January 14, 2016 ACE Limited completed the acquisition of The Chubb Corporation. ACE changed its name from ACE Limited to Chubb Limited (Chubb) and the Company also changed its name from ACE Bermuda Insurance Ltd. to Chubb Bermuda Insurance Ltd. Chubb was incorporated with limited liability under the Cayman Islands Companies Law until July 18, 2008 at which time Chubb moved its jurisdiction of incorporation from the Cayman Islands to Zurich, Switzerland.

The Company wholly owns the following insurance subsidiaries: Corporate Officers & Directors Assurance Limited (CODA), ACE Capital Title Reinsurance Company, and Paget Reinsurance Ltd. In addition, the company wholly owns Sovereign Risk Insurance Limited, a general managing agency who wholly owns Sovereign Risk Insurance (Dubai) Limited, an insurance intermediary. The Company is also an investor in a partially-owned insurance company with insurance operations.

Effective November 2016, the Company deconsolidated its wholly owned subsidiary, Chubb Bermuda International Insurance (Ireland) Limited (CBII), formerly ACE Bermuda International Insurance (Ireland) Limited, as part of an intra-group reorganization of Chubb resulting in CBII becoming 100% owned by an affiliate. The change in control of CBII was accomplished by way of declaration of a dividend in kind to the Company's parent upon which CBII's net assets valued at $137.5 million were deconsolidated from the Company's balance sheet. The Company continues to assume business from CBII as disclosed in Note 10.

2. Principal Business

The Company and its subsidiaries provide property and casualty insurance and reinsurance coverage for a diverse group of international clients across a broad range of businesses including: excess liability, professional lines, excess property and political risk. The nature of the coverage provided is generally expected to result in low frequency but high severity individual losses. The reinsurance market is an integral part of the risk management strategy of the Company and coverage has been secured on most major lines of business.

During the years ended December 31, 2017 and 2016, the Company entered into certain related party transactions as described in Note 10.

3. Significant accounting policies

a) Basis of presentation

The accompanying Consolidated financial statements, which include the accounts of the Company and its subsidiaries, have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) and, in the opinion of management, reflect all adjustments (consisting of normally recurring accruals) necessary for a fair statement of the results and financial position for such periods. All significant intercompany accounts and transactions have been eliminated.

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

- unpaid loss and loss expense reserves;
- reinsurance recoverable, including a provision for uncollectible reinsurance; and
- the valuation of the investment portfolio and assessment of other than temporary impairments (OTTI).

Certain prior year figures have been reclassified to conform to current year presentation.

b) Premiums

Premiums are generally recorded as written upon inception of the policy. For multi-year policies for which premiums written are payable in annual installments, only the current annual premium is included as written at policy inception due to the ability of the insured/reinsured to commute or cancel coverage within the term of the policy. The remaining annual premiums are recorded as written at each successive anniversary date within the multi-year term.

Premiums written are primarily earned on a pro rata basis over the terms of the policies to which they relate. Unearned premiums represent the portion of premiums written applicable to the unexpired portion of the policies in force.

Mandatory reinstatement premiums assessed on reinsurance policies are earned in the period of the loss event that gave rise to the reinstatement premiums. All remaining unearned premiums are recognized over the remaining coverage period.

c) Policy acquisition costs

Policy acquisition costs consist of commissions and premium taxes. Acquisition costs are deferred and amortized over the period in which the related premiums are earned. This amortization is recorded in policy acquisition costs in the Consolidated statements of operations. The costs are reviewed to determine if they are recoverable from future income, including investment income. Unrecoverable policy acquisition costs are expensed in the period identified.

d) Value of reinsurance business assumed

The value of reinsurance business assumed represents the excess of estimated ultimate value of the liabilities assumed under retroactive reinsurance contracts over consideration received. The value of reinsurance business assumed is amortized and recorded to losses and loss expenses based on the payment pattern of the losses assumed and ranges between 9-40 years. The unamortized value is reviewed regularly to determine if it is recoverable based upon the terms of the contract, estimated losses and loss expenses, and anticipated investment income. Unrecoverable amounts are expensed in the period identified.

e) Reinsurance

The Company assumes and cedes reinsurance with other insurance companies to provide greater diversification of business and minimize the net loss potential arising from large risks. Ceded reinsurance contracts do not relieve the Company of its primary obligation to its policyholders.

For both ceded and assumed reinsurance, risk transfer requirements must be met in order to obtain reinsurance status for accounting purposes, principally resulting in the recognition of cash flows under the contract as premiums and losses. To meet risk transfer requirements, a reinsurance contract must include insurance risk, consisting of both underwriting and timing risk, and a reasonable possibility of a significant loss for the assuming entity. To assess risk transfer for certain contracts, the Company generally develops expected discounted cash flow analyses at contract inception. Deposit accounting is used for contracts that do not meet risk transfer requirements. Deposit accounting requires that consideration received or paid be recorded in the balance sheet as opposed to recording premiums written or losses incurred in the statement of operations. Non-refundable fees on deposit contracts are earned based on the terms of the contract. Refer to Note 3 (i).

Reinsurance recoverable includes the balances due from reinsurance companies for paid and unpaid loss and loss expenses that will be recovered from reinsurers, based on contracts in force. The method for determining the reinsurance recoverable on unpaid loss and loss expenses incurred but not reported (IBNR) involves actuarial estimates consistent with those used to establish the associated liability for unpaid loss and loss expenses as well as a determination of the Company's ability to cede unpaid loss and loss expenses under the terms of the reinsurance agreement.

Reinsurance recoverable is presented net of a provision for uncollectible reinsurance determined based upon a review of the financial condition of reinsurers and other factors. The provision for uncollectible reinsurance is based on an estimate of the amount of the reinsurance recoverable balance that the Company will ultimately be unable to recover due to reinsurer insolvency, a contractual dispute, or any other reason. The valuation of this provision includes several judgments including certain aspects of the allocation of reinsurance recoverable on IBNR claims by reinsurer and a default analysis to estimate uncollectible reinsurance. The primary components of the default analysis are reinsurance recoverable balances by reinsurer, net of collateral, and default factors used to determine the portion of a reinsurer's balance deemed uncollectible. The definition of collateral for this purpose requires some judgment and is generally limited to assets held in trust, letters of credit, and liabilities held by the Company with the same legal entity for which it believes there is a contractual right of offset. The determination of the default factor is principally based on the financial strength rating of the reinsurer. Default factors require considerable judgment and are determined using the current financial strength rating, or rating equivalent, of each reinsurer as well as other key considerations and assumptions.

The methods used to determine the reinsurance recoverable balance and related provision for uncollectible reinsurance are regularly reviewed and updated and any resulting adjustments are reflected in earnings in the period identified.

Prepaid reinsurance premiums represent the portion of premiums ceded to reinsurers applicable to the unexpired coverage terms of the reinsurance contracts in force.

f) Investments

Fixed maturity investments are classified as either available for sale or held to maturity. The available for sale portfolio is reported at fair value. The held to maturity portfolio includes securities for which the Company has the ability and intent to hold to maturity or redemption and is reported at amortized cost. Equity securities are classified as available for sale and are recorded at fair value. Short-term investments comprise securities due to mature within one year of the date of purchase and are recorded at fair value which typically approximates cost. Short-term investments include certain cash and cash equivalents, which are part of investment portfolios under the management of external investment managers.

Other investments (primarily representing direct investments in certain limited investment partnerships) over which the Company has significant influence meet the requirements for the equity method of accounting and the Company's share of net income is included in Other income and changes in the fair value of underlying investments is reflected in Other comprehensive income.

Investment in a partially-owned insurance company represents a direct investment in which the Company has significant influence and, as such, meets the requirements for equity accounting. The Company reports its share of the net income or loss of the partially-owned insurance company in Other income.

Realized gains or losses on sales of investments are determined on a first-in, first-out basis. Unrealized appreciation (depreciation) on investments is included as a separate component of Accumulated Other Comprehensive Income (AOCI) in shareholder's equity. We regularly review our investments for OTTI. Refer to Note 4(d).

With respect to securities where the decline in value is determined to be temporary and the security's value is not written down, a subsequent decision may be made to sell that security and realize a loss. Subsequent decisions on security sales are the result of changing or unforeseen facts and circumstances (i.e., arising from a large insured loss such as a catastrophe), deterioration of the credit-worthiness of the issuer or its industry, or changes in regulatory requirements. We believe that subsequent decisions to sell such securities are consistent with the classification of the majority of the portfolio as available for sale.

We use derivative instruments including futures, options, and foreign currency forward contracts for the purpose of managing certain investment portfolio risks and exposures. Refer to Note 8 for additional information. Derivatives are reported at fair value and recorded in the accompanying Consolidated balance sheets in either Accounts payable, accrued expenses, and other liabilities or Other assets with changes in fair value included in Net realized (losses) gains in the Consolidated statements of operations. Collateral held by brokers equal to a percentage of the total value of open futures contracts is included in the investment portfolio.

Net investment income includes interest and dividend income and amortization of fixed maturity market premiums and discounts and is net of investment management and custody fees. For mortgage-backed securities, and any other holdings for which there is a prepayment risk, prepayment assumptions are evaluated and revised as necessary. Any adjustments required due to the resultant change in effective yields and maturities are recognized prospectively. Prepayment fees or call premiums that are only payable when a security is called prior to its maturity are earned when received and reflected in Net investment income.

The Company participates in a securities lending program operated by a third party banking institution whereby certain assets are loaned to qualified borrowers and from which we earn an incremental return. Borrowers provide collateral, in the form of either cash or approved securities, of 102 percent of the fair value of the loaned securities. Each security loan is deemed to be an overnight transaction. Cash collateral is invested in a collateral pool which is managed by the banking institution. The collateral pool is subject to written investment guidelines with key objectives which include the safeguard of principal and adequate liquidity to meet anticipated redemptions. The fair value of the loaned securities is monitored on a daily basis, with additional collateral obtained or refunded as the fair value of the loaned securities changes. The collateral is held by the third party banking institution, and the collateral can only be accessed in the event that the institution borrowing the securities is in default under the lending agreement. As a result of these restrictions, we consider our securities lending activities to be non-cash investing and financing activities. An indemnification agreement with the lending agent protects us in the event a borrower becomes insolvent or fails to return any of the securities on loan. The fair value of the securities on loan is included in fixed maturities and equity securities. The securities lending collateral is reported as a separate line in Total assets with a related liability reflecting our obligation to return the collateral plus interest.

Refer to Note 9 for a discussion on the determination of fair value for the Company's various investment securities.

g) Cash

Cash includes cash on hand and deposits with an original maturity of three months or less at time of purchase. Cash held by external money managers is included in Short-term investments.

Chubb has agreements with a third-party bank provider which implemented two international multi-currency notional cash pooling programs. In each program, participating Chubb entities establish deposit accounts in different currencies with the bank provider and each day the credit or debit balances in every account are notionally translated into a single currency (U.S. dollars) and then notionally pooled. The bank extends overdraft credit to any participating Chubb entity as needed, provided that the overall notionally-pooled balance of all accounts in each pool at the end of each day is at least zero. Actual cash balances are not physically converted and are not commingled between legal entities. Any overdraft balances incurred under this program by a Chubb entity would be guaranteed by Chubb (up to $300 million in the aggregate). Chubb's syndicated letter of credit facility allows for same day drawings to fund a net pool overdraft should participating Chubb entities withdraw contributed funds from the pool. The Company is a participating Chubb entity.

h) Unpaid losses and loss expenses

A liability is established for the estimated unpaid losses and loss expenses under the terms of, and with respect to, the Company's policies and agreements. Similar to premiums that are recognized as revenues over the coverage period of the policy, a liability for unpaid losses and loss expenses is recognized as expense when insured events occur over the coverage period of the policy. These amounts include provision for both reported claims (case reserves) and incurred but not reported (IBNR) claims. IBNR reserve estimates are generally calculated by first projecting the ultimate cost of all losses that have occurred (expected losses), and then subtracting paid losses, case reserves, and loss expenses. The methods of determining such estimates and establishing the resulting liability are reviewed regularly and any adjustments are reflected in operations in the period in which they become known. Future developments may result in losses and loss expenses materially greater or less than the recorded amounts. We do not discount our property and casualty loss reserves.

Prior period development arises from changes to loss estimates recognized in the current year that relate to loss reserves first reported in previous calendar years and excludes the effect of losses from the development of earned premiums from previous accident years. For purposes of analysis and disclosure, management views prior period development to be changes in the nominal value of loss estimates from period to period and excludes changes in loss estimates that do not arise from the emergence of claims, such as those related to uncollectible reinsurance, interest, unallocated loss adjustment expenses, or foreign currency. Accordingly, specific items excluded from prior period development include the following: gains/losses related to foreign currency remeasurement; losses recognized from the early termination or commutation of reinsurance agreements that principally relate to the time value of money; changes in the value of reinsurance business assumed reflected in losses incurred but principally related to the time value of money; and losses that arise from changes in estimates of earned premiums from prior accident years. Except for foreign currency remeasurement, which is included in Net realized gains (losses), these items are included in current year losses.

i) Deposit liabilities

Deposit liabilities primarily include a deposit liability associated with a variable interest entity (see Note 5).

j) Translation of foreign currencies

Revenues and expenses and the related unearned premiums and deferred acquisition costs denominated in non U.S. dollar currencies are translated into U.S. dollars at the rates of exchange at the transaction date. Monetary assets and liabilities are translated at the rates of exchange in effect at the end of the period. Transaction gains and losses resulting from foreign currency transactions are recorded in Net realized gains/(losses).

k) Income taxes

Income taxes have been recorded related to those operations subject to income taxes. Deferred tax assets and liabilities result from temporary differences between the amounts recorded in the Consolidated financial statements and the tax basis of our assets and liabilities. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance against deferred tax assets is recorded if it is more likely than not that all, or some portion, of the benefits related to deferred tax assets will not be realized. The valuation allowance assessment considers tax planning strategies, where applicable.

We recognize uncertain tax positions deemed more likely than not of being sustained upon examination. Recognized income tax positions are measured at the largest amount that has a greater than 50 percent likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

l) Cash flow information

Purchases, sales, and maturities of short-term investments are recorded net for purposes of the Consolidated statements of cash flows and are classified with cash flows related to fixed maturities. Cash flows, such as settlements and collateral requirements, associated with all other derivative instruments are included on a net basis within cash flows from investing activities in the Consolidated statements of cash flows.

m) Derivatives

The Company recognizes all derivatives at fair value in the Consolidated balance sheets and participates in derivative instruments to mitigate financial risks, principally arising from investment holdings, products sold, or assets and liabilities held in foreign currencies. For these instruments, changes in assets or liabilities measured at fair value are recorded as realized gains or losses in the Consolidated statements of operations.

We did not designate any derivatives as accounting hedges during 2017 or 2016.

n) New Accounting Pronouncements

Adopted in 2018

Financial Instruments – Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, the FASB issued guidance that affects the recognition, measurement, presentation, and disclosure of financial instruments. The guidance requires equity investments to be measured at fair value with changes in fair value recognized through net income (other than those accounted for under equity method of accounting or those that result in consolidation of the investee). The standard is effective for us in the first quarter of 2018 and requires recognition of a cumulative effect adjustment at adoption to beginning retained earnings. The adoption of this guidance is not expected to have a significant impact on our financial condition or results of operations.

Statement of Cash Flows

In August 2016, the FASB issued guidance clarifying the classification of certain cash receipts and cash payments within the statement of cash flows, including distributions received from equity method investments. The guidance requires entities to make an accounting policy election to present cash flows received either in operating cash flows or investing cash flows based on cumulative equity-method earnings or on the nature of the distributions. We adopted this guidance effective January 1, 2018 and elected to retain our current presentation of cash receipts and cash payments based on the nature of the distributions.

Accounting guidance not yet adopted

Premium Amortization on Purchased Callable Debt Securities

In March 2017, the FASB issued guidance on the amortization period for purchased callable debt securities held at a premium. The guidance requires the premium to be amortized to the earliest call date. Under current guidance, premiums generally are amortized over the contracted life of the security. This guidance is effective for us in the first quarter of 2019 on a modified retrospective basis through a cumulative effect adjustment to beginning retained earnings. Early adoption is permitted. Securities held at a discount do not require an accounting change. Based on our best estimate at the time of this filing, the cumulative effect adjustment at the time of adoption would be approximately $0.1 million pre-tax.

Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued guidance on the accounting for credit losses of financial instruments that are measured at amortized cost, including held to maturity securities and reinsurance recoverables, by applying an approach based on the current expected credit losses (CECL). The estimate of expected credit losses should consider historical information, current information, as well as reasonable and supportable forecasts, including estimates of prepayments. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset in order to present the net carrying value at the amount expected to be collected on the financial asset on the Consolidated balance sheet.

The guidance also amends debt security other-than-temporary impairment model by requiring an estimate of the expected credit loss (ECL) only when the fair value is below the amortized cost of the asset. The length of time the fair value of an AFS debt security has been below the amortized cost will no longer impact the determination of whether a potential credit loss exists. The AFS debt security model will also require the use of a valuation allowance as compared to the current practice of writing down the asset.

The standard is effective for us in the first quarter of 2020 with early adoption permitted in the first quarter of 2019. We will be able to assess the effect of adopting this guidance on our financial condition and results of operations closer to the date of adoption.

4. Investments

a) Fixed maturities

	December 31, 2017				
	Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value	OTTI Recognized in AOCI
	(in thousands of U.S. dollars)				
Available for sale					
U.S. Treasury and agency	$ 255,562	$ 8,553	$ (1,406)	$ 262,709	$ -
Foreign	361,871	20,155	(3,346)	378,680	(1,390)
Corporate securities	2,086,689	80,703	(15,367)	2,152,025	(1,468)
Mortgage-backed securities	391,174	4,677	(2,414)	393,437	(44)
States, municipalities, and political subdivisions	125,578	3,366	(131)	128,813	-
	$ 3,220,874	$ 117,454	$ (22,664)	$ 3,315,664	$ (2,902)
Held to maturity					
Mortgage-backed securities	$ 1,542	$ 26	$ -	$ 1,568	$ -

	December 31, 2016				
	Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value	OTTI Recognized in AOCI
	(in thousands of U.S. dollars)				
Available for sale					
U.S. Treasury and agency	$ 155,734	$ 8,056	$ (375)	$ 163,415	$ -
Foreign	335,376	13,948	(6,323)	343,001	(4,539)
Corporate securities	2,022,049	75,292	(17,258)	2,080,083	(3,091)
Mortgage-backed securities	392,802	6,198	(3,210)	395,790	(64)
States, municipalities, and political subdivisions	123,408	2,787	(381)	125,814	-
	$ 3,029,369	$ 106,281	$ (27,547)	$ 3,108,103	$ (7,694)
Held to maturity					
Mortgage-backed securities	$ 2,125	$ 14	$ (1)	$ 2,138	$ -

As discussed in Note 4d, if a credit loss is incurred on an impaired fixed maturity, an OTTI is considered to have occurred and the portion of the impairment not related to credit losses (non-credit OTTI) is recognized in OCI. Included in the "OTTI Recognized in AOCI" columns above are the cumulative amounts of non-credit OTTI recognized in OCI adjusted for subsequent sales, maturities, and redemptions. OTTI recognized in AOCI does not include the impact of subsequent changes in fair value of the related securities. In periods subsequent to recognition of OTTI in OCI, changes in the fair value of the related fixed maturities are reflected in Net unrealized appreciation in the Consolidated statement of shareholder's equity. For the years ended December 31, 2017 and 2016, $0.4 million and $26.6 million of net unrealized appreciation, respectively, related to such securities is included in OCI. At December 31, 2017 and 2016, AOCI included cumulative net unrealized appreciation of $4.1 million and $4.5 million, respectively, related to securities remaining in the investment portfolio for which a non-credit OTTI was recognized.

Mortgage-backed securities (MBS) issued by U.S. government agencies are combined with all other "to be announced" mortgage derivatives held (refer to Note 8 a) (iv)) and are included in the category, "Mortgage-backed securities". Approximately 80 percent of the total mortgage-backed securities at December 31, 2017 and 2016, respectively, are represented by investments in U.S. government agency bonds. The remainder of the mortgage exposure consists of collateralized mortgage obligations and non-government mortgage-backed securities, the majority of which provide a planned structure for principal and interest payments and carry a rating of AAA by the major credit rating agencies.

The following table presents fixed maturities at December 31, 2017, by contractual maturity. Expected maturities could differ from contractual maturities because borrowers may have the right to call or prepay obligations, with or without call or prepayment penalties.

	2017	
	Fair Value	Amortized Cost
	(in thousands of U.S. dollars)	
Available for sale; maturity period		
Due in 1 year or less	$ 88,876	$ 88,002
Due after 1 year through 5 years	1,003,048	971,248
Due after 5 years through 10 years	1,385,345	1,361,887
Due after 10 years	444,958	408,564
	2,922,227	2,829,700
Mortgage-backed securities	393,437	391,174
	$ 3,315,664	3,220,874
Held to maturity; maturity period		
Mortgage-backed securities	$ 1,568	$ 1,542
	$ 1,568	$ 1,542

b) Other investments

Other investments primarily include investments in two highly diversified investment partnerships that invest in a variety of investment styles such as long/short equity, and arbitrage/distressed. Included in limited partnerships and partially-owned investment companies are 50 individual limited partnerships covering a broad range of investment strategies including large cap buyouts, specialist buyouts, growth capital, distressed, mezzanine, real estate, and co-investments. The underlying portfolio consists of various public and private debt and equity securities of publicly traded and privately held companies and real estate assets. The underlying investments across various partnerships, geographies, industries, asset types, and investment strategies provide risk diversification within the limited partnership portfolio and the overall investment portfolio.

c) Gross unrealized loss

At December 31, 2017, there were 391 fixed maturities out of a total of 2,213 fixed maturities in an unrealized loss position. The largest single unrealized loss in the fixed maturities was $2.9 million. There were 4 equity securities out of a total of 9 equity securities in an unrealized loss position. The largest single unrealized loss in the equity securities was insignificant. Fixed maturities in an unrealized loss position at December 31, 2017, comprised both investment grade and below investment grade securities for which fair value declined primarily due to widening credit spreads since the date of purchase.

The following tables present, for all securities in an unrealized loss position (including securities on loan) at December 31, 2017, and December 31, 2016, the aggregate fair value and gross unrealized loss by length of time the security has continuously been in an unrealized loss position:

December 31, 2017	0 – 12 Months		Over 12 Months		Total	
	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss
	(in thousands of U.S. dollars)					
U.S. Treasury and agency	$ 155,942	$ (1,325)	$ 3,267	$ (81)	$ 159,209	$ (1,406)
Foreign	63,963	(1,607)	14,823	(1,739)	78,786	(3,346)
Corporate securities	318,729	(9,375)	60,609	(5,992)	379,338	(15,367)
Mortgage-backed securities	114,210	(857)	68,807	(1,557)	183,017	(2,414)
States, municipalities, and political subdivisions	6,795	(33)	3,734	(98)	10,529	(131)
Total fixed maturities	659,639	(13,197)	151,240	(9,467)	810,879	(22,664)
Equity securities	9	(4)	-	-	9	(4)
Other invested assets	23,434	(1,287)	-	-	23,434	(1,287)
Total	$ 683,082	$ (14,488)	$ 151,240	$ (9,467)	$ 834,322	$ (23,955)

December 31, 2016	0 – 12 Months		Over 12 Months		Total	
	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss
	(in thousands of U.S. dollars)					
U.S. Treasury and agency	$ 22,736	$ (375)	$ -	$ -	$ 22,736	$ (375)
Foreign	55,407	(3,043)	25,749	(3,280)	81,156	(6,323)
Corporate securities	394,267	(7,563)	128,572	(9,695)	522,839	(17,258)
Mortgage-backed securities	246,772	(3,210)	14	-	246,786	(3,210)
States, municipalities, and political subdivisions	17,723	(381)	-	-	17,723	(381)
Total fixed maturities	736,905	(14,572)	154,335	(12,975)	891,240	(27,547)
Equity securities	408	(501)	-	-	408	(501)
Other invested assets	43,448	(2,447)	-	-	43,448	(2,447)
Total	$ 780,761	$ (17,520)	$ 154,335	$ (12,975)	$ 935,096	$ (30,495)

d) Net realized gains (losses)

In accordance with guidance related to the recognition and presentation of OTTI, when an impairment related to a fixed maturity has occurred, OTTI is required to be recorded in Net income if management has the intent to sell the security or it is more likely than not that we will be required to sell the security before the recovery of its amortized cost. Further, in cases where we do not intend to sell the security and it is more likely than not that we will not be required to sell the security, the Company must evaluate the security to determine the portion of the impairment, if any, related to credit losses. If a credit loss is incurred, an OTTI is considered to have occurred and any portion of the OTTI related to credit losses must be reflected in Net income while the portion of OTTI related to all other factors is recognized in OCI. For fixed maturities held to maturity, OTTI recognized in OCI is accreted from AOCI to the amortized cost of the fixed maturity prospectively over the remaining term of the securities.

Each quarter, securities in an unrealized loss position (impaired securities), including fixed maturities, securities lending collateral, equity securities, and other investments, are reviewed to identify impaired securities to be specifically evaluated for a potential OTTI.

For all non-fixed maturities, OTTI is evaluated based on the following:

- the amount of time a security has been in a loss position and the magnitude of the loss position;
- the period in which cost is expected to be recovered, if at all, based on various criteria including economic conditions and other issuer-specific developments; and
- the Company's ability and intent to hold the security to the expected recovery period.

As a general rule, equity securities in an unrealized loss position for twelve consecutive months are considered to be impaired.

Evaluation of potential credit losses related to fixed maturities

We review each fixed maturity in an unrealized loss position to assess whether the security is a candidate for credit loss. Specifically, we consider credit rating, market price, and issuer specific financial information, among other factors, to assess the likelihood of collection of all principal and interest as contractually due. Securities for which we determine that credit loss is likely are subjected to further analysis to estimate the credit loss recognized in Net income, if any. In general, credit loss recognized in Net income equals the difference between the security's amortized cost and the net present value of its projected future cash flows discounted at the effective interest rate implicit in the debt security. All significant assumptions used in determining credit losses are subject to change as market conditions evolve.

U.S. Treasury and agency obligations (including agency mortgage-backed securities), foreign government obligations, and states, municipalities, and political subdivisions obligations

U.S. Treasury and agency obligations (including agency mortgage-backed securities), foreign government obligations, and states, municipalities, and political subdivisions obligations represent $4.2 million of gross unrealized loss at December 31, 2017. These securities were evaluated for credit loss primarily using qualitative assessments of the likelihood of credit loss considering credit rating of the issuers and level of credit enhancement, if any. The Company concluded that the high level of creditworthiness of the issuers coupled with credit enhancement, where applicable, supports recognizing no credit loss in Net income.

Corporate securities

Projected cash flows for corporate securities (principally senior unsecured bonds) are driven primarily by assumptions regarding probability of default and also the timing and amount of recoveries associated with defaults. The Company developed projected cash flows for corporate securities using market observable data, issuer-specific information, and credit ratings. We use historical default data by Moody's Investors Service (Moody's) rating category to calculate a 1-in-100 year probability of default, which results in a default assumption in excess of the historical mean default rate. Consistent with management's approach, the Company assumed a 32 percent recovery rate (the par value of a defaulted security that will be recovered) across all rating categories rather than using Moody's historical mean recovery rate of 42 percent. We believe that use of a default assumption in excess of the historical mean is conservative in light of current market conditions.

The following table presents default assumptions by Moody's rating category (historical mean default rate provided for comparison):

Moody's Rating Category	1-in-100 Year Default Rate	Historical Mean Default Rate
Investment Grade:		
Aaa-Baa	0.0% – 1.3%	0.0% – 0.3%
Below Investment Grade:		
Ba	4.8%	1.0%
B	12.1%	3.2%
Caa-C	36.8%	10.5%

Application of the methodology and assumptions described above resulted in credit losses recognized in Net income for corporate securities of $2.3 million and $14.7 million for the years ended December 31, 2017 and December 31, 2016, respectively.

Mortgage-backed securities

For mortgage-backed securities, credit impairment is assessed using a cash flow model that estimates the cash flows on the underlying mortgages, using the security-specific collateral and transaction structure. The model estimates cash flows from the underlying mortgage loans and distributes those cash flows to various tranches of securities, considering the transaction structure and any subordination and credit enhancements that exist in that structure. The cash flow model incorporates actual cash flows on the mortgage-backed securities through the current period and

then projects the remaining cash flows using a number of assumptions, including default rates, prepayment rates, and loss severity rates (the par value of a defaulted security that will not be recovered) on foreclosed properties.

The Company develops specific assumptions using market data, where available, and include internal estimates as well as estimates published by rating agencies and other third-party sources. The Company projects default rates by mortgage sector considering current underlying mortgage loan performance, generally assuming lower loss severity for Prime sector bonds versus ALT-A and Sub-prime bonds.

These estimates are extrapolated along a default timing curve to estimate the total lifetime pool default rate. Other assumptions used contemplate the actual collateral attributes, including geographic concentrations, rating agency loss projections, rating actions, and current market prices. If cash flow projections indicate that losses will exceed the credit enhancement for a given tranche, then we do not expect to recover our amortized cost basis and we recognize an estimated credit loss in Net income.

Application of the methodology and assumptions described above resulted in credit losses recognized in Net income for mortgage-backed securities of $0.1 million and $0.3 million for the years ended December 2017 and December 2016, respectively.

The following table presents the Net realized losses and the losses included in Net realized losses and OCI as a result of conditions which caused the Company to conclude the decline in fair value of certain investments was "other-than-temporary", and the change in net unrealized appreciation (depreciation) on investments.

	2017	2016
	(in thousands of U.S. dollars)	
Fixed maturities:		
OTTI on fixed maturities, gross	$ (5,343)	$ (32,031)
OTTI on fixed maturities recognized in Other comprehensive income (pre-tax)	824	2,739
OTTI on fixed maturities, net	(4,519)	(29,292)
Gross realized gains excluding OTTI	12,167	15,853
Gross realized losses excluding OTTI	(13,653)	(53,535)
Total fixed maturities	(6,005)	(66,974)
Equity securities:		
OTTI on equity securities	(818)	-
Gross realized gains excluding OTTI	250	210
Gross realized losses excluding OTTI	(64)	-
Total equity securities	(632)	210
Investment and embedded derivative instruments	(5,307)	6,170
Foreign exchange (loss) gains	(180)	(1,926)
Net realized losses	$ (12,124)	$ (62,520)
Change in net unrealized appreciation (depreciation) and other on investments:		
Fixed maturities available for sale	$ 16,474	$ 139,283
Fixed maturities held to maturity	3	13
Equity securities	(462)	419
Short term investments	(6)	-
Other investments	(3,590)	(15,633)
Income tax (expense)	(211)	753
Deconsolidation of subsidiary	-	(7,945)
Change in net unrealized (depreciation) and other on investments	12,208	116,890
Total net realized gains (losses) and change in net unrealized appreciation (depreciation) and other on investments	$ 84	$ 54,370

The following table presents a roll-forward of pre-tax credit losses related to fixed maturities for which a portion of OTTI was recognized in OCI for the years ended December 31, 2017 and 2016.

	2017	2016
	(in thousands of U.S. dollars)	
Balance of credit losses related to securities still held-beginning of period	$ 18,087	$ 20,377
Additions where no OTTI was previously recorded	1,454	10,083
Additions where an OTTI was previously recorded	946	4,876
Reductions for securities sold during the period	(10,083)	(17,249)
Balance of credit losses related to securities still held-end of period	$ 10,404	$ 18,087

e) Net investment income

Investment income mainly comprises interest on fixed maturities of $161.6 million (2016 – $159.0 million) offset by investment expense of $9.9 million (2016 – $9.5 million).

f) Other income

Other income mainly comprises equity in net income of partially-owned investment companies and a partially-owned insurance company over which the Company exercises significant influence.

5. Variable interest entity

The Company entered into an excess of loss reinsurance agreement in 2003 on a block of long-term disability reinsurance. In accordance with the terms of the reinsurance agreement a separate trust has been established for the benefit of the ceding company. Upon the expiration of the reinsured liabilities, the Company is entitled to the remainder of the assets, less a $2 million margin. The Company absorbs the majority of the expected losses and receives a majority of the expected residual returns on investment results of the trust assets. These Consolidated financial statements include the trust assets with an aggregate value of $233 million (2016 – $219 million) and corresponding liabilities. The assets are primarily included in Fixed maturities available for sale. The Company's estimate of its direct liability under the excess of loss reinsurance agreement is reflected in Unpaid losses and loss expenses.

6. Unpaid losses and loss expenses

The Company establishes reserves for the estimated unpaid ultimate liability for losses and loss expenses under the terms of its policies and agreements. Reserves include estimates for both claims that have been reported and for IBNR claims, and include estimates of expenses associated with processing and settling these claims. Reserves are recorded in Unpaid losses and loss expenses in the Consolidated balance sheets. While we believe that our reserves for unpaid losses and loss expenses at December 31, 2017 are adequate, new information or trends may lead to future developments in incurred loss and loss expenses significantly greater or less than the reserves provided. Any such revisions could result in future changes in estimates of losses or reinsurance recoverable and would be reflected in our results of operations in the period in which the estimates are changed.

The following table presents a reconciliation of unpaid losses and loss expenses for the years ended December 31, 2017 and 2016.

	2017	2016
	(in thousands of U.S. dollars)	
Gross unpaid losses and loss expenses, beginning of year	$ 2,017,479	$ 2,007,796
Reinsurance recoverable on unpaid losses	(557,395)	(511,932)
Net unpaid losses and loss expenses, beginning of year	1,460,084	1,495,864
Net losses and loss expenses incurred in respect of losses occurring in:		
Current year	187,494	195,594
Prior years	(77,278)	(111,462)
Total	110,216	84,132
Net losses and loss expenses paid in respect of losses occurring in:		
Current year	(37,551)	(11,939)
Prior years	(111,543)	(77,472)
Total	(149,094)	(89,411)
Other movements:		
Value of reinsurance business assumed	(1,506)	(1,586)
Foreign exchange revaluation	739	(304)
Other	28,476	(28,611)
Total	27,709	(30,501)
Net unpaid losses and loss expenses, end of year	$ 1,448,915	$ 1,460,084
Represented by:		
Gross unpaid losses and loss expenses, end of year	$ 2,039,185	$ 2,017,479
Reinsurance recoverable on unpaid losses, end of year	(590,270)	(557,395)
	$ 1,448,915	$ 1,460,084

As indicated in the table above, the prior period development for loss and loss expenses was net favorable of $77.3 million in 2017. Significant developments underlying this result are favorable development of $20.5 million in short-tailed lines and $56.8 million in long-tailed lines. Favorable development in short-tailed lines arises primarily from the 2012-2015 accident years due to lack of emergence of reported claims and favorable development on known claims offset by unfavorable development on known claims in the 2016 accident year. Favorable development in long-tailed lines is mainly due to favorable development on known claims in the 2013 and prior accident or report years offset by unfavorable development on known claims in the 2015 year.

Prior period development in 2016 included net favorable of $111.5 million. Significant developments underlying this result are favorable development of $20.0 million in short-tailed lines and $91.5 million in long-tailed lines. Favorable development in short-tailed lines arises primarily from the 2012-2014 accident years due to lack of emergence of reported claims and favorable development on known claims. Favorable development in long-tailed lines is mainly due to favorable development on known claims in the 2012 and prior report years.

Other movements include a $28.5 million Loss Portfolio Transfer (LPT) agreement the company entered into with CBII during 2017, a previously wholly owned subsidiary, whereby the Company assumed the unpaid loss and loss expenses which were deconsolidated during 2016. See Note 1.

The following table presents a reconciliation of the loss development tables above to the gross loss reserve liability in the Consolidated balance sheet.

Reconciliation of Reserve Balances to Liability for Unpaid Loss and Loss Expenses	December 31, 2017
Net unpaid loss and allocated loss adjustment expense:	
Long-tail	$ 1,195,584
Short-tail	99,883
Other	141,897
Net unpaid loss and allocated loss adjustment expense	1,437,364
Ceded unpaid loss and allocated loss adjustment expense:	
Long-tail	$ 577,097
Short-tail	20,379
Other	(7,206)
Ceded unpaid loss and allocated loss adjustment expense	590,270
Unpaid unallocated loss adjustment expenses	11,551
Unpaid losses and loss expenses	$ 2,039,185

Business excluded from the loss development tables

"Other" shown in the reconciliation table above comprises businesses excluded from the loss development tables for subsets of our business due to data limitations or unsuitability to the development table presentation, including:

- loss portfolio transfers, which we underwrite at various times; by convention, all premium and losses associated with these transactions are recorded to the policy period of the transaction, even though the accident dates of the claims covered may be a decade or more in the past. We also underwrite certain high attachment, high limit, multiple-line and excess of aggregate coverages for large commercial clients. Changes in incurred loss and cash flow patterns are volatile and sufficiently different from those of typical insureds.

- Reinsurance recoverable bad debt.

a) Description of reserving methodologies

Our recorded reserves represent management's best estimate of the provision for unpaid claims as of the balance sheet date. Management's best estimate is developed after collaboration with actuarial, underwriting, claims, legal, and finance departments and culminates with the input of reserve committees. Each reserve committee includes the participation of the relevant parties from actuarial, finance, claims, and unit senior management and has the responsibility for finalizing, recommending and approving the estimate to be used as management's best estimate. Reserves are further reviewed by Chubb's Chief Actuary and senior management. The objective of such a process is to determine a single estimate that we believe represents a better estimate than any other and which is viewed by management to be the best estimate of ultimate loss settlements.

This estimate is based on a combination of exposure and experience-based actuarial methods (described below) and other considerations such as claims reviews, reinsurance recovery assumptions and/or input from other knowledgeable parties such as underwriting. Exposure-based methods are most commonly used on relatively immature origin years (i.e., the year in which the losses were incurred — "accident year" or "report year"), while experience-based methods provide a view based on the projection of loss experience that has emerged as of the valuation date. Greater reliance is placed upon experience-based methods as the pool of emerging loss experience grows and where it is deemed sufficiently credible and reliable as the basis for the estimate. In comparing the held reserve for any given origin year to the actuarial projections, judgment is required as to the credibility, uncertainty and inherent limitations of applying actuarial techniques to historical data to project future loss experience. Examples of factors that impact such judgments include, but are not limited to, the following:

- nature and complexity of underlying coverage provided and net limits of exposure provided;
- segmentation of data to provide sufficient homogeneity and credibility for loss projection methods;
- extent of credible internal historical loss data and reliance upon industry information as required;
- historical variability of actual loss emergence compared with expected loss emergence;
- extent of emerged loss experience relative to the remaining expected period of loss emergence;
- rate monitor information for new and renewal business;
- facts and circumstances of large claims;
- impact of applicable reinsurance recoveries; and
- nature and extent of underlying assumptions.

We have actuarial staff who analyze loss reserves (including loss expenses) and regularly project estimates of ultimate losses and the corresponding indications of the required IBNR reserve. Our reserving approach is a comprehensive ground-up process using data at a detailed level that reflects the specific types and coverages of our diverse product offering. The data presented in this disclosure was prepared on a more aggregated basis and with a focus on changes in incurred loss estimates over time as well as associated cash flows. We note that data prepared on this basis may not demonstrate the full spectrum of characteristics that are evident in the more detailed level studied internally.

We perform an actuarial reserve review for each product line at least once a year. For most product lines, one or more standard actuarial reserving methods may be used to determine estimates of ultimate losses and loss expenses, and from these estimates, a single actuarial central estimate is selected. The actuarial central estimate is an input to the reserve committee process described above.

b) Standard actuarial reserving methods

Standard actuarial reserving methods include, but are not limited to, expected loss ratio, paid and reported loss development, and Bornhuetter-Ferguson methods. A general description of these methods is provided below. In addition to these standard methods, depending upon the product line characteristics and available data, we may use other recognized actuarial methods and approaches. Implicit in the standard actuarial methods that we generally utilize is the need for two fundamental assumptions: first, the pattern by which losses are expected to emerge over time for each origin year, and second the expected loss ratio for each origin year.

The expected loss ratio for any particular origin year is selected after consideration of a number of factors, including historical loss ratios adjusted for rate changes, premium and loss trends, industry benchmarks, the results of policy level loss modeling at the time of underwriting, and/or other more subjective considerations for the product line (e.g., terms and conditions) and external environment as noted above. The expected loss ratio for a given origin year is initially established at the start of the origin year as part of the planning process. This analysis is performed in conjunction with underwriters and management. The expected loss ratio method arrives at an ultimate loss estimate by multiplying the expected ultimate loss ratio by the corresponding premium base. This method is most commonly used as the basis for the actuarial central estimate for immature origin periods on product lines where the actual paid or reported loss experience is not yet deemed sufficiently credible to serve as the principal basis for the selection of ultimate losses. The expected loss ratio for a given origin year may be modified over time if the underlying assumptions differ from the original assumptions (e.g., the assessment of prior year loss ratios, loss trend, rate changes, actual claims, or other information).

Our selected paid and reported development patterns provide a benchmark against which the actual emerging loss experience can be monitored. Where possible, development patterns are selected based on historical loss emergence by origin year. For product lines where the historical data is viewed to have low statistical credibility, the selected development patterns also reflect relevant industry benchmarks and/or experience from similar product lines written elsewhere within Chubb. This most commonly occurs for relatively new product lines that have limited historical data or for high severity/low frequency portfolios where our historical experience exhibits considerable volatility and/or lacks credibility. The paid and reported loss development methods convert the selected loss emergence pattern to a set of multiplicative factors which are then applied to actual paid or reported losses to arrive at an estimate of ultimate losses for each period. Due to their multiplicative nature, the paid and reported loss development methods will leverage differences between actual and expected loss emergence. These methods tend to

be utilized for more mature origin periods and for those portfolios where the loss emergence has been relatively consistent over time.

The Bornhuetter-Ferguson method is a combination of the expected loss ratio method and the loss development method, where the loss development method is given more weight as the origin year matures. This approach allows a logical transition between the expected loss ratio method which is generally utilized at earlier maturities and the loss development methods which are typically utilized at later maturities. We usually apply this method using reported loss data although paid data may also be used.

Short-tail business

Short-tail business generally describes product lines for which losses are typically known and paid shortly after the loss actually occurs. This would include most property policies that we write. Due to the short reporting and development pattern for these product lines, the uncertainty associated with our estimate of ultimate losses for any particular accident period diminishes relatively quickly as actual loss experience emerges. We typically assign credibility to methods that incorporate actual loss emergence, such as the paid and reported loss development and Bornhuetter-Ferguson methods, sooner than would be the case for long-tail lines at a similar stage of development for a given origin year. The reserving process for short-tail losses arising from catastrophic events typically involves an assessment by the claims department, in conjunction with underwriters and actuaries, of our exposure and estimated losses immediately following an event and then subsequent revisions of the estimated losses as our insureds provide updated actual loss information.

Long-tail business

Long-tail business describes lines of business for which specific losses may not be known/reported for some period and for which claims can take significant time to settle/close. This includes most casualty lines such as general liability and professional lines, as well as political risk policies. There are various factors contributing to the uncertainty and volatility of long-tail business. Among these are:

- The nature and complexity of underlying coverage provided and net limits of exposure provided;
- Our historical loss data and experience is sometimes too immature and lacking in credibility to rely upon for reserving purposes. Where this is the case, in our reserve analysis we may utilize industry loss ratios or industry benchmark development patterns that we believe reflect the nature and coverage of the underwritten business and its future development, where available. For such product lines, actual loss experience may differ from industry loss statistics as well as loss experience for previous underwriting years;
- The difficulty in estimating loss trends, claims inflation (e.g., medical and judicial) and underlying economic conditions;
- The need for professional judgment to estimate loss development patterns beyond that represented by historical data using supplemental internal or industry data, extrapolation, or a blend of both;
- The need to address shifts in mix over time when applying historical paid and reported loss development patterns from older origin years to more recent origin years. For example, changes over time in the processes and procedures for establishing case reserves can distort reported loss development patterns or changes in ceded reinsurance structures by origin year can alter the development of paid and reported losses;
- Loss reserve analyses typically require loss or other data be grouped by common characteristics in some manner. If data from two combined lines of business exhibit different characteristics, such as loss payment patterns, the credibility of the reserve estimate could be affected. Additionally, since casualty lines of business can have significant intricacies in the terms and conditions afforded to the insured, there is an inherent risk as to the homogeneity of the underlying data used in performing reserve analyses; and
- The applicability of the price change data used to estimate ultimate loss ratios for most recent origin years.

As described above, various factors are considered when determining appropriate data, assumptions, and methods used to establish the loss reserve estimates for long-tail product lines. These factors may also vary by origin year for given product lines. The derivation of loss development patterns from data and the selection of a tail factor to project ultimate losses from actual loss emergence require considerable judgment, particularly with respect to the extent to which historical loss experience is relied upon to support changes in key reserving assumptions.

c) Loss development tables

The tables were designed to present business with similar risk characteristics which exhibit like development patterns and generally similar trends, in order to provide insight into the nature, amount, timing and uncertainty of cash flows related to our claims liabilities.

Each table follows a similar format and reflects the following:

- The incurred loss triangle includes both reported case reserves and IBNR liabilities.
- Both the incurred and paid loss triangles include allocated loss adjustment expense (i.e., defense and investigative costs particular to individual claims) but exclude unallocated loss adjustment expense (i.e., the costs associated with internal claims staff and third party administrators).
- The amounts in both triangles for the years ended December 31, 2008, to December 31, 2016 and average historical claim duration as of December 31, 2017, are presented as supplementary information.
- All data presented in the triangles is net of reinsurance recoverables.
- The IBNR reserves shown to the right of each incurred loss development exhibit reflect the net IBNR recorded as of December 31, 2017.

Historical dollar amounts are presented in this note on a constant-currency basis, which is achieved by assuming constant foreign exchange rates between periods in the loss triangles, translating prior period amounts using the same local currency exchange rates as the current year end. The impact of this conversion is to show the change between periods exclusive of the effect of fluctuations in exchange rates, which would otherwise distort the change in incurred loss and cash flow patterns shown. The change in incurred loss shown will differ from other U.S. GAAP disclosures of incurred prior period reserve development amounts, which include the effect of fluctuations in exchanges rates.

We provided guidance above on key assumptions that should be considered when reviewing this disclosure and information relating to how loss reserve estimates are developed. We believe the information provided in the “Loss Development Tables” section of the disclosure is of limited use for independent analysis or application of standard actuarial estimations.

Cumulative number of reported claims

Reported claim counts, on a cumulative basis, are provided to the far right of each paid loss development table. We generally consider a reported claim to be one claim per coverage per claimant. We exclude claims closed without payment. Use of the presented claim counts in analysis of company experience has significant limitations, including:

- Professional liability and certain other lines have a high proportion of claims reported which will be closed without any payment; shifts in total reported counts may not meaningfully impact reported and ultimate loss experience.
- Claims for certain events and/or product lines, such as portions of assumed reinsurance are not reported on an individual basis, but rather in bulk and thus not available for inclusion in this disclosure.

Reported claim counts include open claims which have case reserves and exclude claims that have been incurred but not reported. As such the reported claims are consistent with reported losses, which can be calculated by subtracting incurred but not reported losses from incurred losses. Reported claim counts are inconsistent with losses in the incurred loss triangle, which include incurred but not reported losses, and are also inconsistent with losses in the paid loss triangle, which exclude case reserves.

Long-tail

This business consists of excess liability exposures, including medical liability, political risk and professional lines, including directors and officers liability, errors and omissions liability, employment practices liability, and fiduciary liability.

Net Incurred Loss and Allocated Loss Adjustment Expenses Years Ended December 31

(in thousands of U.S. dollars) Accident Year	Unaudited 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	December 31, 2017 Net IBNR Reserves
2008	$ 187,051	$ 181,089	$ 171,881	$ 166,967	$ 166,665	$ 173,005	$ 173,411	$ 173,700	$ 140,897	**$ 141,731**	**$ 21,362**
2009		183,012	168,427	164,127	163,283	157,533	164,534	164,155	164,233	**75,457**	**5,922**
2010			165,568	178,662	176,967	153,009	153,639	168,497	168,260	**168,173**	**97,180**
2011				158,269	157,703	156,647	177,081	196,346	196,173	**196,205**	**73,603**
2012					155,687	155,207	139,372	139,070	119,024	**118,011**	**79,257**
2013						151,938	151,829	151,550	151,550	**130,368**	**124,818**
2014							156,838	156,250	156,270	**155,234**	**144,644**
2015								143,919	169,219	**234,353**	**156,333**
2016									137,470	**139,119**	**118,346**
2017										**140,372**	**130,409**
									Total	**$ 1,499,023**	

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

Years Ended December 31

(in thousands of U.S. dollars) Accident Year	Unaudited 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	December 31, 2017 Reported Claims
2008	$ 427	$ 3,987	$ 4,224	$ 14,798	$ 15,372	$ 102,651	$ 115,754	$ 115,874	$ 116,388	**$ 116,453**	**741**
2009		1,244	3,695	8,467	8,737	9,089	50,216	67,042	69,457	**69,482**	**714**
2010			837	7,706	12,565	19,213	15,507	65,654	69,708	**70,952**	**617**
2011				10,753	12,565	10,657	91,132	91,459	91,608	**122,572**	**592**
2012					1,215	5,690	6,292	6,483	38,498	**38,701**	**648**
2013						1,815	4,754	5,075	5,298	**5,485**	**624**
2014							5,159	8,857	10,136	**10,558**	**755**
2015								659	1,660	**2,751**	**788**
2016									3,538	**19,927**	**827**
2017										**866**	**817**
									Total	**$ 457,747**	

Net Liabilities for Loss and Allocated Loss Adjustment Expenses	December 31, 2017
Accident years prior to 2008	$ 154,308
All Accident years	$ 1,195,584

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2017

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	1.8%	3.2%	0.9%	10.0%	3.6%	25.6%	11.2%	1.0%	0.7%	0.0%

Short-tail

Short-tail represents product lines that are short-tailed in nature, such as property (including property catastrophe, property proportional, and property per risk books). There is a wide diversity of products, excess coverages, and policy sizes. During this ten-year period, this product line was impacted by natural catastrophes.

Net Incurred Loss and Allocated Loss Adjustment Expenses Years Ended December 31

(in thousands of U.S. dollars) Accident Year	Unaudited 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	December 31, 2017 Net IBNR Reserves
2008	$ 35,208	$ 28,097	$ 21,397	$ 20,753	$ 16,400	$ 16,405	$ 16,395	$ 16,409	$ 16,397	**$ 16,444**	**$ -**
2009		19,296	19,272	12,210	10,923	8,779	8,785	8,808	8,812	**8,813**	**88**
2010			21,066	19,689	4,141	1,757	444	446	435	**458**	**-**
2011				39,616	27,616	27,616	31,792	34,298	39,785	**39,169**	**-**
2012					40,505	36,434	40,115	36,179	21,178	**17,878**	**-**
2013						33,224	33,223	8,278	23,286	**13,081**	**250**
2014							54,338	53,000	30,182	**30,073**	**2,482**
2015								35,748	28,885	**14,335**	**12,037**
2016									55,572	**64,601**	**23,810**
2017										**40,801**	**32,064**
									Total	**$ 245,653**	

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses
Years Ended December 31,

(in thousands of U.S. dollars) Accident Year	Unaudited 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	December 31, 2017 Reported Claims
2008	$ 10,467	$ 10,444	$ 11,773	$ 12,343	$ 16,025	$ 16,026	$ 16,027	$ 16,028	$ 16,032	**$ 16,032**	**40**
2009		441	8,721	8,722	8,722	8,763	8,785	8,809	8,812	**8,725**	**23**
2010			69	140	140	140	140	142	142	**142**	**36**
2011				139	8,810	17,645	24,231	24,312	39,168	**39,169**	**49**
2012						17,556	17,621	17,879	17,878	**17,878**	**41**
2013						4	2,259	2,260	2,270	**12,830**	**44**
2014							7,788	19,048	25,863	**26,724**	**63**
2015									1,300	**2,045**	**56**
2016									448	**22,734**	**72**
2017										**-**	**76**
									Total	**$ 146,279**	

Net Liabilities for Loss and Allocated Loss Adjustment Expenses	December 31, 2017
Accident years prior to 2008	$ 509
All Accident years	$ 99,883

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2017

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	7.9%	35.0%	12.7%	6.6%	15.0%	18.0%	0.0%	0.0%	-0.3%	0.0%

The reserve for unpaid losses and loss expenses represents estimated ultimate losses and loss expenses less paid losses and loss expenses and comprises the following at December 31, 2017 and 2016:

	2017	2016
	(in thousands of U.S. dollars)	
Case and loss expense reserve	$ 244,186	$ 145,446
IBNR loss reserve	1,794,999	1,872,033
Total unpaid losses and loss expenses	$ 2,039,185	$ 2,017,479

The Company establishes reserves for the estimated unpaid ultimate liability for losses and loss expenses under the terms of its policies and agreements. Reserves include estimates for both claims that have been reported and for IBNR, and include estimates of expenses associated with processing and settling these claims. Reserves are recorded in Unpaid losses and loss expenses in the Consolidated balance sheets. The process of establishing loss and loss expense reserves for property and casualty claims can be complex and is subject to considerable uncertainty as it requires the use of informed estimates and judgments. The Company's estimates and judgments may be revised as additional experience and other data become available and are reviewed, as new or improved methodologies are developed, or as current laws change.

The Company continually evaluates its estimates of reserves in light of developing information and in light of discussions and negotiations with its insureds. While the Company believes that its reserves for unpaid losses and loss expenses at December 31, 2017 are adequate, new information or trends may lead to future developments in ultimate losses and loss expenses significantly greater or less than the reserves provided. Any such revisions could result in future changes in estimates of losses or reinsurance recoverable, and would be reflected in the Company's results of operations in the period in which the estimates are changed.

7. Reinsurance

The Company purchases reinsurance to manage various exposures including catastrophe risks. Although reinsurance agreements contractually obligate the Company's reinsurers to reimburse it for the agreed-upon portion of its gross paid losses, they do not discharge the primary liability of the Company. The following table presents direct, assumed, and ceded premiums for the years ended December 31, 2017 and 2016:

	2017	2016
Premiums written	(in thousands of U.S. dollars)	
Direct	$ 302,827	$ 315,354
Assumed	153,789	131,156
Ceded	(143,780)	(139,347)
Net	$ 312,836	$ 307,163
Premiums earned		
Direct	$ 286,043	$ 307,230
Assumed	154,209	131,193
Ceded	(136,079)	(135,533)
Net	$ 304,173	$ 302,890

The Company evaluates the financial condition of its reinsurers and potential reinsurers on a regular basis and also monitors concentrations of credit risk with reinsurers. The composition of the Company's reinsurance recoverable at December 31, 2017 and 2016 is as follows:

	2017	2016
	(in thousands of U.S. dollars)	
Reinsurance (payable) recoverable on paid losses and loss expenses	$ (2,948)	$ 4,777
Reinsurance recoverable on unpaid losses and loss expenses	590,270	557,395
Total reinsurance recoverable	$ 587,322	$ 562,172

The following table presents a listing, at December 31, 2017, of the categories of the Company's reinsurers. The first category, largest reinsurers, represents all reinsurers where the gross unpaid recoverable exceeds one percent of the Company's total shareholder's equity. The provision for uncollectible reinsurance for the largest reinsurers, other reinsurers rated A- or better, and other reinsurers with ratings lower than A- is principally based on an analysis of the credit quality of the reinsurer and collateral balances. The Company establishes its provision for uncollectible reinsurance in this category based on a case by case analysis of individual situations including the merits of the underlying matter, credit and collateral analysis, and consideration of the Company's collection experience in similar situations. Reinsurance recoverables include $12 million supported by LOC's.

Categories	2017	Provision	% of Gross
	(in thousands of U.S. dollars, except percentages)		
Largest reinsurers	$ 439,165	$ 5,113	1.2%
Other reinsurers balances rated A- or better	133,528	1,424	1.1%
Other reinsurers balances with ratings lower than A- or not rated	24,780	666	2.7%
Total	$ 597,473	$ 7,203	1.2%

Largest reinsurers
Berkley Insurance Co
Munich Reinsurance Group
Renaissance Reinsurance Limited
Swiss Re Group

8. Commitments, contingencies, and guarantees

a) Derivative instruments

The Company maintains positions in derivative instruments such as futures, options, and foreign currency forward contracts for which the primary purposes are to manage duration and foreign currency exposure, yield enhancement, or to obtain an exposure to a particular financial market. The Company also maintains positions in convertible securities that contain embedded derivatives. Investment derivative instruments are recorded in either Other assets (OA) or Accounts payable, accrued expenses, and other liabilities (AP), convertible bonds are recorded in Fixed maturities available for sale (FM AFS) and convertible equity securities are recorded in Equity securities (ES) in the Consolidated balance sheets. These are the most numerous and frequent derivative transactions.

In addition, the Company from time to time purchases to be announced mortgage-backed securities (TBAs) as part of its investing activities.

The following table presents the balance sheet locations, fair values of derivative instruments in an asset or (liability) position, and notional values/payment provisions of our derivative instruments:

	2017				2016			
	Consolidated Balance Sheet Location	Fair Value: Derivative Asset	Fair Value: Derivative (Liability)	Notional Value/ Payment Provision	Consolidated Balance Sheet Location	Fair Value: Derivative Asset	Fair Value: Derivative (Liability)	Notional Value/ Payment Provision
		(in thousands of U.S. dollars)				(in thousands of U.S. dollars)		
Investment and embedded derivative instruments								
Foreign currency forward contracts	OA / (AP)	$ 19	$ (211)	$ 14,767	OA / (AP)	$ 241	$ (2)	$ 14,499
Futures contracts on money market instruments	OA / (AP)	126	(308)	143,000	OA / (AP)	-	-	-
Options/Futures contracts on notes and bonds	OA / (AP)				OA / (AP)	1,122	(385)	162,300
Convertible securities[1]	FM AFS/ES	4,748	-	5,811	FM AFS/ES	1,374	-	6,057
		$ 4,893	$ (519)	$ 163,578		$ 2,737	$ (387)	$ 182,856

[1] Includes fair value of embedded derivatives.

At December 31, 2017 net derivative liabilities of $0.4 million (December 31, 2016 net derivative assets of $1.0 million) included in the table above were subject to a master netting agreement. The remaining derivatives included in the table above were not subject to a master netting agreement.

b) Secured borrowings

The Company participates in a securities lending program operated by a third-party banking institution whereby certain assets are loaned to qualified borrowers and from which we earn an incremental return. At December 31, 2017 and 2016, the Company's securities lending payable, reflecting our obligation to return the collateral plus interest, was $189 million and $104 million, respectively, and the Company's securities lending collateral was $189 million and $104 million, respectively. The securities lending collateral can only be drawn down by the Company in the event that the institution borrowing the securities is in default under the lending agreement. An indemnification agreement with the lending agent protects us in the event a borrower becomes insolvent or fails to return any of the securities on loan. The collateral is recorded in Securities lending collateral and the liability is recorded in Securities lending payable in the Consolidated balance sheets.

The following table presents the carrying value of collateral held under securities lending agreements by investment category and maturity date of the underlying agreements.

	Remaining contractual maturity Overnight and Continuous	
	2017	**2016**
	(in thousands of U.S. dollars)	
Investment and embedded derivative instruments		
Cash	$ 186,282	$ 104,452
Foreign	2,816	-
Total	$ 189,098	$ 104,452
Gross amount of recognized liabilities for lending payable	189,098	104,452

The following table presents net realized (losses) gains related to derivative instrument activity in the Consolidated statement of operations for the years ended December 31, 2017 and 2016.

	2017	**2016**
	(in thousands of U.S. dollars)	
Investment and embedded derivative instruments		
Foreign currency forward contracts	$ (786)	$ 701
Futures contracts and options	(5,502)	650
Convertible securities	981	4,819
	$ (5,307)	$ 6,170

Derivative instrument objectives

(i) Foreign currency exposure management

A foreign currency forward contract (forward) is an agreement between participants to exchange specific foreign currencies at a future date. The Company uses forwards to minimize the effect of fluctuating foreign currencies.

(ii) Duration management and market exposure

Futures

Futures contracts give the holder the right and obligation to participate in market movements, determined by the index or underlying security on which the futures contract is based. Settlement is made daily in cash by an amount equal to the change in value of the futures contract times a multiplier that scales the size of the contract. Exchange-traded futures contracts on money market instruments, notes and bonds are used in fixed maturity portfolios to more

efficiently manage duration, as substitutes for ownership of the money market instruments, bonds and notes without significantly increasing the risk in the portfolio. Investments in futures contracts may be made only to the extent that there are assets under management not otherwise committed.

Options

An option contract conveys to the holder the right, but not the obligation, to purchase or sell a specified amount or value of an underlying security at a fixed price. Option contracts are used in the investment portfolio as protection against unexpected shifts in interest rates, which would affect the duration of the fixed maturity portfolio. By using options in the portfolio, the overall interest rate sensitivity of the portfolio can be reduced. Option contracts may also be used as an alternative to futures contracts in the Company's synthetic strategy as described above. The price of an option is influenced by the underlying security, expected volatility, time to expiration, and supply and demand.

The credit risk associated with the above derivative financial instruments relates to the potential for non-performance by counterparties. Although non-performance is not anticipated, in order to minimize the risk of loss, management monitors the creditworthiness of its counterparties and obtains collateral. The performance of exchange-traded instruments is guaranteed by the exchange on which they trade. For non-exchange-traded instruments, the counterparties are principally banks which must meet certain criteria according to the Company's investment guidelines.

(iii) Convertible security investments

A convertible security is a debt instrument or preferred stock that can be converted into a predetermined amount of the issuer's equity. The convertible option is an embedded derivative within the host instruments which are classified in the investment portfolio as either available for sale or as an equity security. The Company purchases convertible securities for their total return and not specifically for the conversion feature.

(iv) TBA

By acquiring TBAs, we make a commitment to purchase a future issuance of mortgage-backed securities. For the period between purchase of the TBAs and issuance of the underlying security, we account for our position as a derivative in the Consolidated financial statements. The Company purchases TBAs both for their total return and for the flexibility they provide related to our mortgage-backed security strategy.

c) Concentrations of credit risk

Our investment portfolio is managed following prudent standards of diversification. Specific provisions limit the allowable holdings of a single issue and issuer. We believe that there are no significant concentrations of credit risk associated with our investments. Our three largest exposures by issuer at December 31, 2017, were Softbank Corp., Altice N.V. and CenturyLink Inc. Our largest exposure by industry at December 31, 2017 was Consumer, non-cyclical services.

d) Letter of credit

On October 25, 2017, Chubb replaced its $1.5 billion letter of credit/revolver facility that was set to expire in November 2017 with an amended and restated credit facility that provides for up to $1.0 billion of availability, all of which may be used for the issuance of letters of credit and for revolving loans by Chubb and its participating subsidiaries (including the Company). Chubb has the ability to increase the capacity under their existing credit facility to $2.0 billion under certain conditions, but any such increase would not raise the sub-limit for revolving loans above $1.0 billion. The letter of credit facility required that Chubb maintain certain financial covenants, all of which were met at December 31, 2017. At December 31, 2017, outstanding LOCs issued under this facility were $250 million.

e) Restricted assets

Included in available for sale fixed maturity securities are assets which have been used as collateral for certain undertakings of the Company. At December 31, 2017 there was $362.1 million in restricted assets held in trust accounts.

f) Legal proceedings

Claims and other litigation

The Company is subject to claims litigation (more specifically arbitrations) involving disputed interpretations of policy coverages and, in some jurisdictions, direct actions by third parties seeking damages from policyholders. Such contentious matters involving claims on policies issued by the Company, which are typical to the insurance industry in general and in the normal course of business, are considered in the Company's reserves for loss and loss expense. In addition to contentious claims, the Company is at times subject to lawsuits and regulatory actions in the normal course of business that do not arise from or directly relate to claims on insurance policies. This category of business litigation may involve, among other things, allegations of underwriting errors or misconduct, employment claims, regulatory activity or disputes arising from business ventures. Although the outcomes of any such business litigation involving the Company cannot be predicted with certainty, the Company disputes and will continue to dispute allegations against it that are without merit and believes that the ultimate outcomes of any existing or potential matters in this category of business litigation will not have a material adverse effect on the financial condition, future operating results or liquidity of the Company.

g) Other investments

At December 31, 2017, included in Other investments in the Consolidated balance sheets are investments in limited partnerships and partially-owned investment companies with a carrying value of $585 million. In connection with these investments, we have commitments that may require funding of up to $368 million over the next several years.

9. Fair value measurements

Fair value hierarchy

Fair value of financial assets and financial liabilities is estimated based on the framework established in the fair value accounting guidance. The guidance defines fair value as the price to sell an asset or transfer a liability (an exit price) in an orderly transaction between market participants and establishes a three-level valuation hierarchy based on the reliability of the inputs. The fair value hierarchy gives the highest priority to quoted prices in active markets and the lowest priority to unobservable data.

The three levels of the hierarchy are as follows:

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

Level 2 Includes, among other items, inputs other than quoted prices that are observable for the asset or liability such as interest rates and yield curves, quoted prices for similar assets and liabilities in active markets, and quoted prices for identical or similar assets and liabilities in markets that are not active; and

Level 3 Inputs that are unobservable and reflect management's judgments about assumptions that market participants would use in pricing an asset or liability.

We categorize financial instruments within the valuation hierarchy at the balance sheet date based upon the lowest level of inputs that are significant to the fair value measurement. Accordingly, transfers between levels within the valuation hierarchy occur when there are significant changes to the inputs, such as increases or decreases in market activity, changes to the availability of current prices, changes to the transparency to underlying inputs, and whether there are significant variances in quoted prices. Transfers in and/or out of any level are assumed to occur at the end of the period.

We use pricing services to obtain fair value measurements for the majority of our investment securities. Based on management's understanding of the methodologies used, these pricing services only produce an estimate of fair value if there is observable market information that would allow them to make a fair value estimate. Based on our understanding of the market inputs used by the pricing services, all applicable investments have been valued in

accordance with GAAP. We do not adjust prices obtained from pricing services. The following is a description of the valuation techniques and inputs used to determine fair values for financial instruments carried at fair value, as well as the general classification of such financial instruments pursuant to the valuation hierarchy.

Fixed maturities

We use pricing services to estimate fair value measurements for the majority of our fixed maturities. The pricing services use market quotations for fixed maturities that have quoted prices in active markets; such securities are classified within Level 1. For fixed maturities other than U.S. Treasury securities that generally do not trade on a daily basis, the pricing services prepare estimates of fair value measurements using their pricing applications, which include available relevant market information, benchmark curves, benchmarking of like securities, sector groupings, and matrix pricing. Additional valuation factors that can be taken into account are nominal spreads, dollar basis, and liquidity adjustments. The pricing services evaluate each asset class based on relevant market and credit information, perceived market movements, and sector news. The market inputs used in the pricing evaluation, listed in the approximate order of priority include: benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, reference data, and industry and economic events. The extent of the use of each input is dependent on the asset class and the market conditions. Given the asset class, the priority of the use of inputs may change or some market inputs may not be relevant. Additionally, fixed maturities valuation is more subjective when markets are less liquid due to the lack of market based inputs (i.e., stale pricing), which may increase the potential that an investment's estimated fair value is not reflective of the price at which an actual transaction would occur. The overwhelming majority of fixed maturities are classified within Level 2 because the most significant inputs used in the pricing techniques are observable. For a small number of fixed maturities, we obtain a single broker quote (typically a market maker). Due to the disclaimers on the quotes that indicate that the price is indicative only, we include these fair value estimates in Level 3.

Equity securities

Equity securities with active markets are classified within Level 1 as fair values are based on quoted market prices. For equity securities in markets which are less active, fair values are based on market valuations and are classified within Level 2. Equity securities for which pricing is unobservable are classified within Level 3.

Short-term investments

Short-term investments, which comprise securities due to mature within one year of the date of purchase that are traded in active markets, are classified within Level 1 as fair values are based on quoted market prices. Securities such as commercial paper and discount notes are classified within Level 2 because these securities are typically not actively traded due to their approaching maturity and, as such, their cost approximates fair value. Short-term investments for which pricing is unobservable are classified within Level 3.

Securities lending collateral

The underlying assets included in Securities lending collateral in the Consolidated balance sheets are fixed maturities which are classified in the valuation hierarchy on the same basis as other fixed maturities. Excluded from the valuation hierarchy is the corresponding liability related to the Company's obligation to return the collateral plus interest as it is reported at contract value and not fair value in the Consolidated balance sheets.

Other investments

Fair values for the majority of Other investments including investments in partially-owned investment companies, investment funds, and limited partnerships are based on their respective net asset values or equivalent (NAV) and are excluded from the fair value hierarchy table below. Other investments for which pricing is unobservable are classified within Level 3.

Investment derivative instruments

Actively traded investment derivative instruments, including futures, options, and forward contracts, are classified within Level 1 as fair values are based on quoted market prices. Investment derivative instruments are recorded in either Other assets or Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets.

The following table presents, by valuation hierarchy, the financial instruments measured at fair value on a recurring basis, as of December 31, 2017, and December 31, 2016:

	Quoted Prices in Active Markets for Identical Assets or Liabilities Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3	Total
December 31, 2017		**(in thousands of U.S. dollars)**		
Assets:				
Fixed maturities available for sale				
U.S. Treasury and agency	$ 213,761	$ 48,948	$ -	$ 262,709
Foreign	-	377,015	1,665	378,680
Corporate securities	-	2,113,979	38,046	2,152,025
Mortgage-backed securities	-	393,437	-	393,437
States, municipalities, and political subdivisions	-	128,813	-	128,813
	213,761	3,062,192	39,711	3,315,664
Equity securities	10	-	2,851	2,861
Short-term investments	200,136	36,125	474	236,735
Investment derivative instruments	145	-	-	145
Other investments[(2)]	-	-	5,300	5,300
Securities lending collateral	-	189,098	-	189,098
Total assets measured at fair value	$ 200,291	$ 225,223	$ 8,625	$ 434,139

(2) Excluded from the table above are other investments of $791 million at December 31, 2017 measured using NAV as a practical expedient.

There was $0.5 million in investment derivative liability instruments classified as Level 1 as of the year ended December 31, 2017. There were no significant transfers between Level 1 and Level 2 during the year ended December 31, 2017.

	Quoted Prices in Active Markets for Identical Assets or Liabilities Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3	Total
December 31, 2016		**(in thousands of U.S. dollars)**		
Assets:				
Fixed maturities available for sale				
U.S. Treasury and agency	$ 106,527	$ 56,888	$ -	$ 163,415
Foreign	-	341,028	1,973	343,001
Corporate securities	-	2,059,457	20,626	2,080,083
Mortgage-backed securities	-	395,790	-	395,790
States, municipalities, and political subdivisions	-	125,814	-	125,814
	106,527	2,978,977	22,599	3,108,103
Equity securities	53	-	4,196	4,249
Short-term investments	186,943	19,596	-	206,539
Investment derivative instruments	1,363	-	-	1,363
Other investments[(3)]	-	-	4,618	4,618
Securities lending collateral	-	104,452	-	104,452
Total assets measured at fair value	$ 294,886	$ 3,103,025	$ 31,413	$ 3,429,324

(3) Excluded from the table above are other investments of $695 million at December 31, 2016 measured using NAV as a practical expedient.

There was $0.4 million in investment derivative liability instruments classified as Level 1 as of the year ended December 31, 2016. There were no significant transfers between Level 1 and Level 2 during the year ended December 31, 2016.

Fair value of alternative investments

The other investments of $791 million at December 31, 2017 represent equity method investments in two affiliated companies, which in turn invest in a pool of alternative investments. Alternative investments include investment funds, limited partnerships, and partially-owned investment companies measured at fair value using NAV as a practical expedient.

The following table presents, by investment category, the expected liquidation period, fair value, and maximum future funding commitments of alternative investments held by our equity method investees.

		December 31, 2017		December 31, 2016	
	Expected Liquidation Period of Underlying Assets	Fair Value	Maximum Future Funding Commitments	Fair Value	Maximum Future Funding Commitments
		(in thousands of U.S. dollars)			
Financial	5 to 9 Years	$ 87,880	$ 85,980	$ 83,478	$ 109,273
Real Assets	3 to 7 Years	28,635	7,874	10,717	23,030
Distressed	3 to 7 Years	80,124	42,331	82,469	52,328
Private Credit	3 to 7 Years	47,708	88,059	59,496	63,150
Traditional	3 to 9 Years	340,819	143,548	311,090	203,056
Vintage	1 to 2 Years	146	-	431	-
Investment funds	Not Applicable	89,924	-	83,815	-
		$ 675,236	$ 367,792	$ 631,496	$ 450,837

Included in all categories in the above table except for Investment funds are investments for which the Company will never have the contractual option to redeem but receives distributions based on the liquidation of the underlying assets. Further, for all categories except for Investment funds, the Company does not have the ability to sell or transfer investments without the consent from the general partner of individual funds.

Investment Category	Consists of investments in private equity funds:
Financial	targeting financial services companies such as financial institutions and insurance services worldwide
Real Assets	targeting investments related to hard physical assets such as real estate, infrastructure and natural resources
Distressed	targeting distressed debt/credit and equity opportunities in the U.S.
Private Credit	targeting privately originated corporate debt investments including senior secured loans and subordinated bonds
Traditional	employing traditional private equity investment strategies such as buyout and growth equity globally
Vintage	made before 2002 or where the funds' commitment periods had already expired

Investment funds

The Company's investment funds employ various investment strategies such as long/short equity and arbitrage/distressed. Included in this category are investments for which the Company has the option to redeem at agreed upon value as described in each investment fund's subscription agreement. Depending on the terms of the various subscription agreements, investment fund investments may be redeemed monthly, quarterly, semi-annually, or annually. If the Company wishes to redeem an investment fund investment, it must first determine if the investment fund is still in a lock-up period (a time when the Company cannot redeem its investment so that the investment fund manager has time to build the portfolio). If the investment fund is no longer in its lock-up period,

the Company must then notify the investment fund manager of its intention to redeem by the notification date prescribed by the subscription agreement. Subsequent to notification, the investment fund can redeem the Company's investment within several months of the notification. Notice periods for redemption of the investment funds range between 5 and 120 days. The Company can redeem its investment funds without consent from the investment fund managers.

Level 3 financial instruments

The fair values of assets measured at fair value using significant unobservable inputs (Level 3) consist of various inputs and assumptions that management makes when determining fair value. Management analyzes changes in fair value measurements classified within Level 3 by comparing pricing and returns of our investments to benchmarks, including month-over-month movements, investment credit spreads, interest rate movements, and credit quality of securities.

The following table presents a reconciliation of the beginning and ending balances of financial instruments carried or disclosed at fair value using significant unobservable inputs (Level 3) for the year ended December 31, 2017 and 2016.

	Year Ended December 2017				
	Available-for-Sale Debt Securities				
	Foreign	**Corporate securities**	**Short term**	**Equity securities**	**Other investments**
Balance-Beginning of year	$ 1,973	$ 20,626	$ -	$ 4,196	$ 4,618
Transfers into (out of) Level 3	-	24,284	158	-	-
Change in Net Unrealized Gains (Losses) included in OCI	436	474	4	(500)	-
Net Realized (Losses)	(935)	(311)	-	(606)	-
Purchases	309	622	312	3	682
Sales	(119)	(953)	-	(242)	-
Settlements	-	(6,696)	-	-	-
Balance-End of year	$ 1,664	$ 38,046	$ 474	$ 2,851	$ 5,300

There was ($1.2) million recorded in Net realized gains (losses) attributable to changes in fair value at the balance sheet date.

	Year Ended December 2016				
	Available-for-Sale Debt Securities				
	Foreign	**Corporate securities**	**Short term**	**Equity securities**	**Other investments**
Balance-Beginning of year	$ 1,578	$ 22,444	$ -	$ 2,611	$ 4,863
Transfers into (out of) Level 3	2,170	4,048	-	142	-
Change in Net Unrealized Gains (Losses) included in OCI	944	4,730	-	458	6
Net Realized (Losses)	(1,401)	(6,083)	-	-	-
Purchases	632	694	-	2,488	709
Sales	(1,950)	(2,542)	-	(1,503)	-
Settlements	-	(2,665)	-	-	(960)
Balance-End of year	$ 1,973	$ 20,626	$ -	$ 4,196	$ 4,618

There was ($6.5) million recorded in Net realized gains (losses) attributable to changes in fair value at the balance sheet date.

Financial instruments disclosed, but not measured, at fair value

The Company uses various financial instruments in the normal course of its business. Our insurance contracts are excluded from fair value of financial instruments accounting guidance. The carrying values of cash, other assets, other liabilities, and other financial instruments approximated their fair values. Fair values for investments in partially-owned insurance companies are based on the Company's share of the net assets based on the financial statements provided by those companies.

Fixed maturities held to maturity investments are carried at amortized cost and are classified as level 2 in the valuation hierarchy as of December 31, 2017 and December 31, 2016. The fair values of held to maturity investments are disclosed in Note 4(a).

10. Related party transactions

The Company receives and pays amounts to various related parties for operating purposes and sundry back-office services. These are interest free and repayable on demand. These amounts are included in Amount due to parent and affiliates.

During the year ended December 31, 2017 the Company declared and paid a dividend of $70 million. In 2016, $588 million was paid in cash to its parent company for dividends payable as at December 31, 2015.

At December 31, 2017, loans payable to affiliates are $12.7 million (2016 – $15.0 million), due on demand and bearing interest at 2.48% to 2.58% (2016 – 1.98% to 2.37%) and are included in Amounts due to parent and affiliate. At December 31 2017 and 2016, loans receivables from affiliates were $130 million bearing interest at 3.82%. These amounts are included in Amounts due from parent and affiliates.

At December 31, 2017, the Company maintains an interest free receivable of $21.5 million (2016 – $22.9 million) from a not-for-profit organization (Chubb Charitable Foundation Bermuda) for which the Board of Directors is principally comprised of Chubb management. Such receivable is included in Amounts due from parent and affiliate in the accompanying Consolidated balance sheets. The borrower has used related proceeds to finance investments in Bermuda real estate properties, some of which have been rented to Chubb employees at rates established by independent, professional real estate appraisers, and intends to use income from the investments to both repay the note and fund future charitable activities. Accordingly, the Company reports the note receivable at the lower of its principal value or the fair value of assets held by the borrower, including the real estate properties, to repay the loan.

During the year ended December 31, 2017 the Company entered into reinsurance transactions with various affiliated companies which included net premiums earned of $61.6 million (2016 – $22.8 million) and net losses and loss recoveries of $21.7 million (2016 – $19.3 million). Unpaid losses and loss expenses, net of reinsurance recoverables at December 31, 2017 were $246.6 million (2016 – $213.8 million). The Company entered into an LPT agreement with a related party as described in Note 6.

11. Taxation

The Company has received an undertaking from the Bermuda government exempting it from all local income, withholding and capital gains taxes until March 28, 2035. At the present time, no such taxes are levied in Bermuda.

12. Statutory financial information

The Company and its insurance and reinsurance subsidiaries are subject to insurance laws and regulations in the jurisdictions in which they operate. These regulations include restrictions that limit the amount of dividends or other distributions, such as loans or cash advances, available to shareholders without prior approval of the insurance regulatory authorities.

The Company is registered under The Insurance Act 1978 (Bermuda), amendments thereto and related regulations (the "Act") as a Class 4 insurer. Effective January 1, 2016, Bermuda implemented a new solvency and risk management regime which has been deemed equivalent to the EU's Solvency II regime. Bermuda statutory

reporting rules have been amended to introduce an economic balance sheet ("EBS") framework. The Act requires the Company to meet a minimum solvency margin and a minimum liquidity ratio. The Company has satisfied these requirements for 2017 and 2016. The Bermuda Statutory Capital Requirement ("BSCR") is a risk-based capital model to measure risk and to determine an enhanced capital requirement and target capital level (defined as 120% of the enhanced capital requirement ("ECR")) for Class 4 insurers. For the year ended December 31, 2017 and 2016, the Company had a combined (general and long term) business statutory capital and surplus, of $3.1 billion and $2.8 billion, which exceeded the combined ECR of $545 million and $548 million respectively.

A Class 4 insurer is prohibited from declaring or paying a dividend if in breach of its ECR, solvency margin or minimum liquidity ratio or if the declaration or payment of such dividend would cause such a breach. Where an insurer fails to meet its solvency margin or minimum liquidity ratio on the last day of any financial year, it is prohibited from declaring or paying any dividends during the next financial year without the approval of the Authority. Further, a Class 4 insurer is prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet) unless it files (at least seven days before payment of such dividends) with the Authority an affidavit signed by at least two directors and the insurer's principal representative stating that the declaration of such dividends has not caused the insurer to fail to meet its solvency margin or minimum liquidity ratio. Class 4 insurers must obtain the Authority's prior approval for a reduction by 15% or more of the total statutory capital as set forth in its previous year's statutory financial statements. The maximum amount available for payment of dividends or other distributions in 2018 without prior regulatory approval is approximately $787 million.

ACE Capital Title Reinsurance Company is subject to the New York insurance laws and regulations governing title insurers. A stock dividend may not be declared or distributed if such dividend reduces the Company's surplus to less than 50% of its outstanding capital shares. Without prior approval from the New York Department of Financial Services, the maximum amount payable by the Company as a dividend during 2018 is $24.1 million.

13. Subsequent events

The Company has performed an evaluation of subsequent events through April 26, 2018, which is the date that the financial statements were issued. No significant subsequent events requiring disclosure or accounting in these Consolidated financial statements were identified.