

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## FORM 10-Q

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

For the Quarterly Period Ended June 30, 2018

OR

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

For the Transition Period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File No. 1-11778

## CHUBB LIMITED

(Exact name of registrant as specified in its charter)

**Switzerland**

(State or other jurisdiction of incorporation or organization)

**98-0091805**

(I.R.S. Employer Identification No.)

**Baerengasse 32**

Zurich, Switzerland CH-8001

(Address of principal executive offices) (Zip Code)

+41 (0)43 456 76 00

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

YES

NO

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

YES

NO

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

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

Emerging growth company

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

YES

NO

The number of registrant's Common Shares (CHF 24.15 par value) outstanding as of July 20, 2018 was 463,258,917 .

**CHUBB LIMITED**  
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**PART I FINANCIAL INFORMATION****ITEM 1. Financial Statements****CONSOLIDATED BALANCE SHEETS (Unaudited)**

Chubb Limited and Subsidiaries

	June 30 2018	December 31 2017
(in millions of U.S. dollars, except share and per share data)		
<b>Assets</b>		
Investments		
Fixed maturities available for sale, at fair value (amortized cost – \$78,546 and \$77,835 ) (includes hybrid financial instruments of \$9 and \$5 )	\$ 77,963	\$ 78,939
Fixed maturities held to maturity, at amortized cost (fair value – \$13,665 and \$14,474 )	13,860	14,335
Equity securities, at fair value (cost – \$933 and \$737 )	933	937
Short-term investments, at fair value and amortized cost	3,171	3,561
Other investments (cost – \$5,259 and \$4,417 )	5,259	4,672
Total investments	101,186	102,444
Cash	1,000	728
Restricted cash	101	123
Securities lending collateral	2,355	1,737
Accrued investment income	870	909
Insurance and reinsurance balances receivable	10,341	9,334
Reinsurance recoverable on losses and loss expenses	14,792	15,034
Reinsurance recoverable on policy benefits	204	184
Deferred policy acquisition costs	4,916	4,723
Value of business acquired	311	326
Goodwill	15,476	15,541
Other intangible assets	6,283	6,513
Prepaid reinsurance premiums	2,686	2,529
Investments in partially-owned insurance companies	675	662
Other assets	6,338	6,235
<b>Total assets</b>	<b>\$ 167,534</b>	<b>\$ 167,022</b>
<b>Liabilities</b>		
Unpaid losses and loss expenses	\$ 62,778	\$ 63,179
Unearned premiums	15,748	15,216
Future policy benefits	5,470	5,321
Insurance and reinsurance balances payable	6,448	5,868
Securities lending payable	2,355	1,737
Accounts payable, accrued expenses, and other liabilities	8,933	9,545
Deferred tax liabilities	326	699
Repurchase agreements	1,413	1,408
Short-term debt	600	1,013
Long-term debt	12,184	11,556
Trust preferred securities	308	308
<b>Total liabilities</b>	<b>116,563</b>	<b>115,850</b>
<b>Commitments and contingencies</b>		
<b>Shareholders' equity</b>		
Common Shares (CHF 24.15 par value; 479,783,864 shares issued; 463,502,164 and 463,833,179 shares outstanding)	11,121	11,121
Common Shares in treasury ( 16,281,700 and 15,950,685 shares)	(2,040)	(1,944)
Additional paid-in capital	13,150	13,978
Retained earnings	30,260	27,474
Accumulated other comprehensive income (loss) (AOCI)	(1,520)	543
<b>Total shareholders' equity</b>	<b>50,971</b>	<b>51,172</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 167,534</b>	<b>\$ 167,022</b>

See accompanying notes to the consolidated financial statements



**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (Unaudited)**

Chubb Limited and Subsidiaries

	Three Months Ended		Six Months Ended	
	June 30		June 30	
(in millions of U.S. dollars, except per share data)	2018	2017	2018	2017
<b>Revenues</b>				
Net premiums written	\$ 8,015	\$ 7,581	\$ 15,119	\$ 14,291
Increase in unearned premiums	(351)	(344)	(428)	(282)
Net premiums earned	7,664	7,237	14,691	14,009
Net investment income	828	770	1,634	1,515
Net realized gains (losses):				
Other-than-temporary impairment (OTTI) losses gross	(4)	(9)	(5)	(28)
Portion of OTTI losses recognized in other comprehensive income (OCI)	—	1	—	1
Net OTTI losses recognized in income	(4)	(8)	(5)	(27)
Net realized gains (losses) excluding OTTI losses	22	109	21	121
Total net realized gains (losses) (includes \$(81), \$25, \$(104) and \$17 reclassified from AOCI)	18	101	16	94
Total revenues	8,510	8,108	16,341	15,618
<b>Expenses</b>				
Losses and loss expenses	4,487	4,146	8,589	7,935
Policy benefits	150	163	301	331
Policy acquisition costs	1,464	1,449	2,928	2,846
Administrative expenses	747	706	1,439	1,382
Interest expense	167	147	324	301
Other (income) expense	(115)	(145)	(162)	(215)
Amortization of purchased intangibles	85	65	170	129
Chubb integration expenses	13	72	23	183
Total expenses	6,998	6,603	13,612	12,892
Income before income tax	1,512	1,505	2,729	2,726
Income tax expense (benefit) (includes \$(12), \$9, \$(15) and \$3 on reclassified unrealized gains and losses)	218	200	353	328
<b>Net income</b>	<b>\$ 1,294</b>	<b>\$ 1,305</b>	<b>\$ 2,376</b>	<b>\$ 2,398</b>
<b>Other comprehensive income (loss)</b>				
Unrealized appreciation (depreciation)	\$ (578)	\$ 459	\$ (1,812)	\$ 766
Reclassification adjustment for net realized (gains) losses included in net income	81	(25)	104	(17)
	(497)	434	(1,708)	749
Change in:				
Cumulative foreign currency translation adjustment	(574)	102	(177)	236
Postretirement benefit liability adjustment	(17)	(35)	(40)	(55)
Other comprehensive income (loss), before income tax	(1,088)	501	(1,925)	930
Income tax (expense) benefit related to OCI items	71	(131)	279	(246)
Other comprehensive income (loss)	(1,017)	370	(1,646)	684
<b>Comprehensive income</b>	<b>\$ 277</b>	<b>\$ 1,675</b>	<b>\$ 730</b>	<b>\$ 3,082</b>
<b>Earnings per share</b>				
Basic earnings per share	\$ 2.78	\$ 2.79	\$ 5.10	\$ 5.12
Diluted earnings per share	\$ 2.76	\$ 2.77	\$ 5.07	\$ 5.08

See accompanying notes to the consolidated financial statements

**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (Unaudited)**

Chubb Limited and Subsidiaries

(in millions of U.S. dollars)	Six Months Ended	
	June 30	
	2018	2017
<b>Common Shares</b>		
Balance – beginning and end of period	\$ 11,121	\$ 11,121
<b>Common Shares in treasury</b>		
Balance – beginning of period	(1,944)	(1,480)
Common Shares repurchased	(324)	(475)
Net shares redeemed under employee share-based compensation plans	228	280
Balance – end of period	(2,040)	(1,675)
<b>Additional paid-in capital</b>		
Balance – beginning of period	13,978	15,335
Net shares redeemed under employee share-based compensation plans	(261)	(275)
Exercise of stock options	(19)	(38)
Share-based compensation expense	123	156
Funding of dividends declared to Retained earnings	(671)	(656)
Balance – end of period	13,150	14,522
<b>Retained earnings</b>		
Balance – beginning of period	27,474	23,613
Cumulative effect of adoption of accounting guidance (refer to Note 1)	410	—
Balance – beginning of period, as adjusted	27,884	23,613
Net income	2,376	2,398
Funding of dividends declared from Additional paid-in capital	671	656
Dividends declared on Common Shares	(671)	(656)
Balance – end of period	30,260	26,011
<b>Accumulated other comprehensive income (loss)</b>		
Net unrealized appreciation on investments		
Balance – beginning of period	1,450	1,058
Cumulative effect of adoption of accounting guidance (refer to Note 1)	(417)	—
Balance – beginning of period, as adjusted	1,033	1,058
Change in period, before reclassification from AOCI, net of income tax benefit (expense) of \$300 and \$(259)	(1,512)	507
Amounts reclassified from AOCI, net of income tax benefit (expense) of \$(15) and \$3	89	(14)
Change in period, net of income tax benefit (expense) of \$285 and \$(256)	(1,423)	493
Balance – end of period	(390)	1,551
Cumulative foreign currency translation adjustment		
Balance – beginning of period	(1,187)	(1,663)
Change in period, net of income tax expense of \$(15) and \$(7)	(192)	229
Balance – end of period	(1,379)	(1,434)
Postretirement benefit liability adjustment		
Balance – beginning of period	280	291
Change in period, net of income tax benefit of \$9 and \$17	(31)	(38)
Balance – end of period	249	253
Accumulated other comprehensive income (loss)	(1,520)	370
<b>Total shareholders' equity</b>	<b>\$ 50,971</b>	<b>\$ 50,349</b>

See accompanying notes to the consolidated financial statements



**CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)**

Chubb Limited and Subsidiaries

	Six Months Ended June 30	
(in millions of U.S. dollars)	2018	2017
<b>Cash flows from operating activities</b>		
Net income	\$ 2,376	\$ 2,398
Adjustments to reconcile net income to net cash flows from operating activities		
Net realized (gains) losses	(16)	(94)
Amortization of premiums/discounts on fixed maturities	311	353
Amortization of purchased intangibles	170	129
Deferred income taxes	(71)	(112)
Unpaid losses and loss expenses	(267)	(411)
Unearned premiums	635	386
Future policy benefits	144	134
Insurance and reinsurance balances payable	675	278
Accounts payable, accrued expenses, and other liabilities	(489)	(603)
Income taxes payable	224	(103)
Insurance and reinsurance balances receivable	(1,129)	(575)
Reinsurance recoverable on losses and loss expenses	200	312
Reinsurance recoverable on policy benefits	(22)	(15)
Deferred policy acquisition costs	(213)	(179)
Prepaid reinsurance premiums	(205)	(139)
Other	(126)	(119)
Net cash flows from operating activities	2,197	1,640
<b>Cash flows from investing activities</b>		
Purchases of fixed maturities available for sale	(12,297)	(12,260)
Purchases of fixed maturities held to maturity	(337)	(212)
Purchases of equity securities	(85)	(82)
Sales of fixed maturities available for sale	6,858	6,873
Sales of equity securities	83	104
Maturities and redemptions of fixed maturities available for sale	3,920	5,169
Maturities and redemptions of fixed maturities held to maturity	732	408
Net change in short-term investments	401	354
Net derivative instruments settlements	5	(129)
Private equity contributions	(813)	(345)
Private equity distributions	413	487
Other	(140)	(244)
Net cash flows from (used for) investing activities	(1,260)	123
<b>Cash flows from financing activities</b>		
Dividends paid on Common Shares	(661)	(646)
Common Shares repurchased	(347)	(475)
Proceeds from issuance of long-term debt	2,171	—
Repayment of long-term debt	(1,900)	(500)
Proceeds from issuance of repurchase agreements	1,014	1,343
Repayment of repurchase agreements	(1,009)	(1,338)
Proceeds from share-based compensation plans	60	89
Policyholder contract deposits	192	209
Policyholder contract withdrawals	(169)	(125)
Net cash flows used for financing activities	(649)	(1,443)
Effect of foreign currency rate changes on cash and restricted cash	(38)	11
Net increase in cash and restricted cash	250	331

Cash and restricted cash – beginning of period		851		1,088
<b>Cash and restricted cash – end of period</b>	<b>\$</b>	<b>1,101</b>	<b>\$</b>	<b>1,419</b>
Supplemental cash flow information				
Taxes paid	\$	223	\$	510
Interest paid	\$	332	\$	327
See accompanying notes to the consolidated financial statements				

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)**

Chubb Limited and Subsidiaries

**1 . General****a) Basis of presentation**

Chubb Limited is a holding company incorporated in Zurich, Switzerland. Chubb Limited, through its subsidiaries, provides a broad range of insurance and reinsurance products to insureds worldwide. Chubb operates through the following business segments: North America Commercial P&C Insurance, North America Personal P&C Insurance, North America Agricultural Insurance, Overseas General Insurance, Global Reinsurance, and Life Insurance. Refer to Note 10 for additional information.

The interim unaudited consolidated financial statements, which include the accounts of Chubb Limited and its subsidiaries (collectively, Chubb, we, us, or our), 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, including internal reinsurance transactions, have been eliminated.

The results of operations and cash flows for any interim period are not necessarily indicative of the results for the full year. These consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes included in our 2017 Form 10-K.

**b) Restricted cash**

Effective January 1, 2018, we retrospectively adopted guidance on "Restricted Cash" that clarified the presentation of restricted cash on the consolidated statement of cash flows. As a result, we revised the statement of cash flows for the six months ended June 30, 2017 to include restricted cash in the beginning and ending cash balances. In addition, we reclassified \$123 million of Restricted cash from Other assets to a separate line in the balance sheet as of December 31, 2017.

Restricted cash in the consolidated balance sheets represents amounts held for the benefit of third parties and is legally or contractually restricted as to withdrawal or usage. Amounts include deposits with U.S. and non-U.S. regulatory authorities, trust funds set up for the benefit of ceding companies, and amounts pledged as collateral to meet financing arrangements.

The following table provides a reconciliation of cash and restricted cash reported within the consolidated balance sheets that total to the amounts shown in the consolidated statements of cash flows:

(in millions of U.S. dollars)	June 30 2018	December 31 2017
Cash	\$ 1,000	\$ 728
Restricted cash	101	123
Total cash and restricted cash shown in the consolidated statements of cash flows	\$ 1,101	\$ 851

**c) Goodwill**

During the six months ended June 30, 2018, Goodwill decreased \$ 65 million , primarily reflecting the impact of foreign exchange.

**d) Accounting guidance adopted in 2018****Revenue from Contracts with Customers**

In May 2014, the FASB issued an accounting standard that supersedes most existing revenue recognition guidance. The standard excludes from its scope the accounting for insurance contracts, leases, financial instruments, and certain other agreements that are governed under other GAAP guidance, but could affect the revenue recognition for certain of our claims management and risk control services. The updated guidance requires an entity to recognize revenue as performance obligations are met, in order to reflect the transfer of promised goods or services to customers in an amount that reflects the consideration the entity is entitled to receive for those goods or services. This guidance was effective for us on January 1, 2018. The adoption of this guidance did not have a material impact on our financial condition or results of operations given that the majority of our business is outside the scope of this guidance.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

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

Effective January 2018, we adopted new accounting guidance on "Recognition and Measurement of Financial Assets and Financial Liabilities" on a modified-retrospective basis. The guidance requires equity investments, other than those accounted for under the equity method of accounting, to be measured at fair value with changes in fair value recognized through net income. The guidance impacts our public equities and cost-method private equities. As a result, we recorded a cumulative-effect adjustment to increase beginning Retained earnings by \$417 million after tax ( \$454 million pre-tax), representing the unrealized appreciation on our equity investments with an offsetting adjustment to decrease Accumulated other comprehensive income. All subsequent changes in fair value of our equity investments are recognized within realized gains (losses) on the consolidated statement of operations. Prior period amounts have not been adjusted and continue to be reported in accordance with the previous accounting guidance.

***Income Taxes***

Effective January 2018, we adopted new accounting guidance on "Intra-Entity Transfers of Assets Other Than Inventory" on a modified-retrospective basis. Under the new guidance, we will no longer defer taxes on intra-company asset transfers and will recognize any related income tax expense (benefit) immediately through the consolidated statement of operations. As a result, we recorded a cumulative-effect adjustment to decrease beginning Retained earnings by \$7 million representing the removal of the deferred tax asset for previous intra-company asset transfer transactions not yet recognized through earnings.

***Income Tax Accounting Implications of the Tax Cuts and Jobs Act***

The Tax Cuts and Jobs Act (2017 Tax Act) was signed into legislation in December 2017. The Securities and Exchange Commission issued Staff Accounting Bulletin No. 118 (SAB 118), Income Tax Accounting Implications of the Tax Cuts and Jobs Act, which provides guidance for the application of the 2017 Tax Act. The income tax guidance allows for the transition impact of the 2017 Tax Act to be recorded as 1) complete with all accounting implications identified, 2) provisional based on a reasonable estimate, or 3) not recorded as no reasonable estimate was determinable.

In December 2017, we recorded a \$450 million income tax benefit which was our estimate of the tax effects of the 2017 Tax Act. This amount was recorded as provisional under SAB 118. There were no changes determined to this estimate for the current period as we continue to analyze the impact of the 2017 Tax Act. We will continue to monitor this area as new regulations and interpretive guidance are released and will update as appropriate.

Refer to the 2017 Form 10-K for information on other accounting guidance not yet adopted.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**2 . Investments**
**a) Fixed maturities**

June 30, 2018 (in millions of U.S. dollars)	Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value	OTTI Recognized in AOCI
<i>Available for sale</i>					
U.S. Treasury and agency	\$ 3,827	\$ 18	\$ (81)	\$ 3,764	\$ —
Foreign	21,884	421	(294)	22,011	—
Corporate securities	24,665	235	(415)	24,485	(4)
Mortgage-backed securities	15,853	40	(410)	15,483	(1)
States, municipalities, and political subdivisions	12,317	55	(152)	12,220	—
	\$ 78,546	\$ 769	\$ (1,352)	\$ 77,963	\$ (5)
<i>Held to maturity</i>					
U.S. Treasury and agency	\$ 1,143	\$ 9	\$ (19)	\$ 1,133	\$ —
Foreign	1,678	14	(17)	1,675	—
Corporate securities	2,736	14	(85)	2,665	—
Mortgage-backed securities	2,640	7	(62)	2,585	—
States, municipalities, and political subdivisions	5,663	16	(72)	5,607	—
	\$ 13,860	\$ 60	\$ (255)	\$ 13,665	\$ —

December 31, 2017 (in millions of U.S. dollars)	Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value	OTTI Recognized in AOCI
<i>Available for sale</i>					
U.S. Treasury and agency	\$ 3,701	\$ 32	\$ (35)	\$ 3,698	\$ —
Foreign	20,514	622	(106)	21,030	(1)
Corporate securities	23,453	638	(95)	23,996	(4)
Mortgage-backed securities	15,279	111	(100)	15,290	(1)
States, municipalities, and political subdivisions	14,888	125	(88)	14,925	—
	\$ 77,835	\$ 1,528	\$ (424)	\$ 78,939	\$ (6)
<i>Held to maturity</i>					
U.S. Treasury and agency	\$ 908	\$ 12	\$ (5)	\$ 915	\$ —
Foreign	1,738	27	(8)	1,757	—
Corporate securities	3,159	67	(7)	3,219	—
Mortgage-backed securities	2,724	23	(5)	2,742	—
States, municipalities, and political subdivisions	5,806	50	(15)	5,841	—
	\$ 14,335	\$ 179	\$ (40)	\$ 14,474	\$ —

As discussed in Note 2 b ), 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 a recognition of OTTI in OCI, changes in the fair value of the related fixed maturities are reflected in Net unrealized appreciation on investments in the Consolidated statements of shareholders' equity. For the three and six months ended June 30, 2018 , nil and \$ 4 million , respectively, of net unrealized depreciation related to such securities is included in OCI. For both the three and six months ended June 30, 2017 , \$3 million of net unrealized depreciation related to such securities is included in OCI. At June 30, 2018 and December 31, 2017 , AOCI included

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

cumulative net unrealized appreciation of \$3 million and \$7 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-backed securities (TBAs) held (refer to Note 6 b) (iv)) and are included in the category, "Mortgage-backed securities". Approximately 81 percent and 83 percent of the total mortgage-backed securities at June 30, 2018 and December 31, 2017, 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 by contractual maturity:

(in millions of U.S. dollars)	June 30 2018		December 31 2017	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
<i>Available for sale</i>				
Due in 1 year or less	\$ 3,801	\$ 3,808	\$ 3,164	\$ 3,182
Due after 1 year through 5 years	26,591	26,583	24,749	25,068
Due after 5 years through 10 years	24,016	23,695	25,388	25,704
Due after 10 years	8,285	8,394	9,255	9,695
	62,693	62,480	62,556	63,649
Mortgage-backed securities	15,853	15,483	15,279	15,290
	\$ 78,546	\$ 77,963	\$ 77,835	\$ 78,939
<i>Held to maturity</i>				
Due in 1 year or less	\$ 644	\$ 645	\$ 743	\$ 746
Due after 1 year through 5 years	2,783	2,767	2,669	2,688
Due after 5 years through 10 years	4,634	4,554	4,744	4,756
Due after 10 years	3,159	3,114	3,455	3,542
	11,220	11,080	11,611	11,732
Mortgage-backed securities	2,640	2,585	2,724	2,742
	\$ 13,860	\$ 13,665	\$ 14,335	\$ 14,474

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.

**b ) 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, we 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 and securities lending collateral are reviewed to identify impaired securities to be specifically evaluated for a potential OTTI. Refer to the 2017 Form 10-K for information on our evaluation of OTTI for all non-fixed maturities prior to our adoption of new accounting guidance on financial instruments, effective January 1, 2018.

**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

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

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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.

***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. Chubb 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, Chubb 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.

For both the three and six months ended June 30, 2018 , credit losses recognized in Net income for corporate securities were \$ 1 million . For the three and six months ended June 30, 2017 , credit losses recognized in Net income for corporate securities were \$ 1 million and \$ 2 million , 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.

For the three and six months ended June 30, 2018 and 2017, there were no credit losses recognized in Net income for mortgage-backed securities.

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The following table presents the components of Net realized gains (losses):

(in millions of U.S. dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
<b>Fixed maturities:</b>				
OTTI on fixed maturities, gross	\$ (4)	\$ (5)	\$ (5)	\$ (11)
OTTI on fixed maturities recognized in OCI (pre-tax)	—	1	—	1
OTTI on fixed maturities, net	(4)	(4)	(5)	(10)
Gross realized gains excluding OTTI	99	45	165	79
Gross realized losses excluding OTTI	(176)	(18)	(264)	(58)
<b>Total fixed maturities</b>	<b>(81)</b>	<b>23</b>	<b>(104)</b>	<b>11</b>
<b>Equity securities:</b>				
OTTI on equity securities	—	(3)	—	(8)
Gross realized gains excluding OTTI	6	6	16	15
Gross realized losses excluding OTTI	(8)	(1)	(29)	(1)
<b>Total equity securities</b>	<b>(2)</b>	<b>2</b>	<b>(13)</b>	<b>6</b>
OTTI on other investments	—	(1)	—	(9)
Other investments	(11)	—	18	—
Foreign exchange gains (losses)	140	14	63	(5)
Investment and embedded derivative instruments	24	(16)	41	(10)
Fair value adjustments on insurance derivative	41	118	79	211
S&P put options and futures	(44)	(38)	(22)	(112)
Other derivative instruments	8	(1)	10	1
Other	(57)	—	(56)	1
<b>Net realized gains (losses)</b>	<b>\$ 18</b>	<b>\$ 101</b>	<b>\$ 16</b>	<b>\$ 94</b>

Other net realized gains (losses) for the three and six months ended June 30, 2018, included a \$36 million loss from the extinguishment of debt as discussed in Note 5 and a \$22 million loss related to lease impairments.

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:

(in millions of U.S. dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Balance of credit losses related to securities still held – beginning of period	\$ 15	\$ 32	\$ 22	\$ 35
Additions where no OTTI was previously recorded	1	1	1	1
Additions where an OTTI was previously recorded	—	—	—	1
Reductions for securities sold during the period	—	(4)	(7)	(8)
<b>Balance of credit losses related to securities still held – end of period</b>	<b>\$ 16</b>	<b>\$ 29</b>	<b>\$ 16</b>	<b>\$ 29</b>

**c) Equity securities and Other investments**

Effective January 1, 2018, we adopted new accounting guidance that requires any changes in fair value of equity securities and other investments that are accounted for under the cost-method to be recognized immediately in realized gains and losses in net income. As a result, beginning on January 1, 2018, realized gains and losses from these investments include both sales of securities and unrealized gains and losses as follows:

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	Three Months Ended			Six Months Ended		
	June 30, 2018			June 30, 2018		
(in millions of U.S. dollars)	Equity Securities	Other Investments	Total	Equity Securities	Other Investments	Total
Net gains (losses) recognized during the period	\$ (2)	\$ (11)	\$ (13)	\$ (13)	\$ 18	\$ 5
Less: Net gains (losses) recognized from sales of securities	5	—	5	15	—	15
Unrealized gains (losses) recognized for securities still held at reporting date	\$ (7)	\$ (11)	\$ (18)	\$ (28)	\$ 18	\$ (10)

At December 31, 2017, the cost, gross unrealized appreciation, gross unrealized depreciation, and fair value of equity securities was \$737 million, \$212 million, \$12 million, and \$937 million, respectively. At December 31, 2017, the net unrealized appreciation (depreciation) was recorded within accumulated other comprehensive income on the balance sheet.

**d) Gross unrealized loss**

At June 30, 2018, there were 17,926 fixed maturities out of a total of 31,062 fixed maturities in an unrealized loss position. The largest single unrealized loss in the fixed maturities was \$11 million. Fixed maturities in an unrealized loss position at June 30, 2018, 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), the aggregate fair value and gross unrealized loss by length of time the security has continuously been in an unrealized loss position:

June 30, 2018 (in millions of U.S. dollars)	0 – 12 Months		Over 12 Months		Total
	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Gross Unrealized Loss
U.S. Treasury and agency	\$ 2,952	\$ (59)	\$ 1,275	\$ (41)	\$ (100)
Foreign	8,886	(219)	3,127	(92)	(311)
Corporate securities	15,899	(411)	1,553	(89)	(500)
Mortgage-backed securities	12,438	(325)	2,892	(147)	(472)
States, municipalities, and political subdivisions	13,551	(177)	1,230	(47)	(224)
Total fixed maturities	\$ 53,726	\$ (1,191)	\$ 10,077	\$ (416)	\$ (1,607)

December 31, 2017 (in millions of U.S. dollars)	0 – 12 Months		Over 12 Months		Total
	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Gross Unrealized Loss
U.S. Treasury and agency	\$ 2,172	\$ (14)	\$ 1,249	\$ (26)	\$ (40)
Foreign	5,657	(65)	1,693	(49)	(114)
Corporate securities	5,210	(56)	1,332	(46)	(102)
Mortgage-backed securities	6,194	(31)	3,209	(74)	(105)
States, municipalities, and political subdivisions	9,259	(71)	1,402	(32)	(103)
Total fixed maturities	28,492	(237)	8,885	(227)	(464)
Equity securities	115	(12)	—	—	(12)
Other investments	78	(8)	—	—	(8)
Total	\$ 28,685	\$ (257)	\$ 8,885	\$ (227)	\$ (484)

**e) Restricted assets**

Chubb is required to maintain assets on deposit with various regulatory authorities to support its insurance and reinsurance operations. These requirements are generally promulgated in the statutory regulations of the individual jurisdictions. The assets on deposit are available to settle insurance and reinsurance liabilities. Chubb is also required to restrict assets pledged under



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repurchase agreements, which represent Chubb's agreement to sell securities and repurchase them at a future date for a predetermined price. We also use trust funds in certain large reinsurance transactions where the trust funds are set up for the benefit of the ceding companies and generally take the place of letter of credit (LOC) requirements. We also have investments in segregated portfolios primarily to provide collateral or guarantees for LOC and derivative transactions. Included in restricted assets at June 30, 2018 and December 31, 2017 are investments, primarily fixed maturities, totaling \$21.2 billion and \$23.3 billion, respectively, and cash of \$101 million and \$123 million, respectively.

The following table presents the components of restricted assets:

(in millions of U.S. dollars)	June 30 2018	December 31 2017
Trust funds	\$ 14,775	\$ 17,011
Deposits with U.S. regulatory authorities	2,460	2,345
Deposits with non-U.S. regulatory authorities	2,206	2,250
Assets pledged under repurchase agreements	1,449	1,434
Other pledged assets	407	414
	\$ 21,297	\$ 23,454

**3 . Fair value measurements****a ) 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

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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 from 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.

**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. Certain of our long-duration contracts are supported by assets that do not qualify for separate account reporting under GAAP. These assets comprise mutual funds classified within Level 1 in the valuation hierarchy on the same basis as other equity securities traded in active markets. Other investments also include equity securities classified within Level 1, and fixed maturities, classified within Level 2, held in rabbi trusts maintained by Chubb for deferred compensation plans and are classified within the valuation hierarchy on the same basis as other equity securities and fixed maturities. Other 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 Chubb's obligation to return the collateral plus interest as it is reported at contract value and not fair value in the Consolidated balance sheets.

**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. The fair value of cross-currency swaps is based on market valuations and is classified within Level 2. Investment derivative instruments are recorded in either Other assets or Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets.

**Other derivative instruments**

We generally maintain positions in other derivative instruments including exchange-traded equity futures contracts and option contracts designed to limit exposure to a severe equity market decline, which would cause an increase in expected claims and, therefore, an increase in reserves for our guaranteed minimum death benefits (GMDB) and guaranteed living benefits (GLB) reinsurance business. Our position in exchange-traded equity futures contracts is classified within Level 1. The fair value of the majority of the remaining positions in other derivative instruments is based on significant observable inputs including equity security and interest rate indices. Accordingly, these are classified within Level 2. Other derivative instruments based on unobservable inputs are classified within Level 3. Other derivative instruments are recorded in either Other assets or Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets.

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**Separate account assets**

Separate account assets represent segregated funds where investment risks are borne by the customers, except to the extent of certain guarantees made by Chubb. Separate account assets comprise mutual funds classified within Level 1 in the valuation hierarchy on the same basis as other equity securities traded in active markets. Separate account assets also include fixed maturities classified within Level 2 because the most significant inputs used in the pricing techniques are observable. Excluded from the valuation hierarchy are the corresponding liabilities as they are reported at contract value and not fair value in the Consolidated sheets. Separate account assets are recorded in Other assets in the Consolidated balance sheets.

**Guaranteed living benefits**

The GLB arises from life reinsurance programs covering living benefit guarantees whereby we assume the risk of guaranteed minimum income benefits (GMIB) associated with variable annuity contracts. We also assume the risk of guaranteed minimum accumulation benefits (GMAB). However, at June 30, 2018, the risks related to our GMAB programs are minimal given that the majority of these policies are no longer in-force. GLB's are recorded in Accounts payable, accrued expenses, and other liabilities and Future policy benefits in the Consolidated balance sheets. For GLB reinsurance, Chubb estimates fair value using an internal valuation model which includes current market information and estimates of policyholder behavior. All of the treaties contain claim limits, which are factored into the valuation model. The fair value depends on a number of factors, including interest rates, equity markets, credit risk, current account value, market volatility, expected annuitization rates and other policyholder behavior, and changes in policyholder mortality.

The most significant policyholder behavior assumptions include lapse rates and the GMIB annuitization rates. Assumptions regarding lapse rates and GMIB annuitization rates differ by treaty, but the underlying methodologies to determine rates applied to each treaty are comparable.

A lapse rate is the percentage of in-force policies surrendered in a given calendar year. All else equal, as lapse rates increase, ultimate claim payments will decrease.

The GMIB annuitization rate is the percentage of policies for which the policyholder will elect to annuitize using the guaranteed benefit provided under the GMIB. All else equal, as GMIB annuitization rates increase, ultimate claim payments will increase, subject to treaty claim limits.

The effect of changes in key market factors on assumed lapse and annuitization rates reflect emerging trends using data available from cedants. For treaties with limited experience, rates are established in line with data received from other ceding companies adjusted, as appropriate, with industry estimates. The model and related assumptions are regularly re-evaluated by management and enhanced, as appropriate, based upon additional experience obtained related to policyholder behavior and availability of updated information such as market conditions, market participant assumptions, and demographics of in-force annuities. Because of the significant use of unobservable inputs including policyholder behavior, GLB reinsurance is classified within Level 3. For the three and six months ended June 30, 2018, no material technical refinements were made to the model. During the three months ended June 30, 2017, we updated aspects of our valuation model relating to interest rates. This resulted in a decrease to the fair value of GLB liabilities generating a realized gain of approximately \$ 94 million . During the six months ended June 30, 2017, there were no other material changes to actuarial or behavioral assumptions. For detailed information on our lapse and annuitization rate assumptions, refer to Note 4 to the Consolidated Financial Statements of our 2017 Form 10-K.

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**Financial instruments measured at fair value on a recurring basis, by valuation hierarchy**

June 30, 2018

(in millions of U.S. dollars)

	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
<i>Fixed maturities available for sale</i>				
U.S. Treasury and agency	\$ 2,939	\$ 825	\$ —	\$ 3,764
Foreign	—	21,759	252	22,011
Corporate securities	—	23,304	1,181	24,485
Mortgage-backed securities	—	15,401	82	15,483
States, municipalities, and political subdivisions	—	12,220	—	12,220
	2,939	73,509	1,515	77,963
Equity securities	874	—	59	933
Short-term investments	1,750	1,409	12	3,171
Other investments <sup>(1)</sup>	424	326	264	1,014
Securities lending collateral	—	2,355	—	2,355
Investment derivative instruments	39	—	—	39
Other derivative instruments	50	—	—	50
Separate account assets	2,862	116	—	2,978
<b>Total assets measured at fair value <sup>(1)</sup></b>	<b>\$ 8,938</b>	<b>\$ 77,715</b>	<b>\$ 1,850</b>	<b>\$ 88,503</b>
<b>Liabilities:</b>				
Investment derivative instruments	\$ 42	\$ —	\$ —	\$ 42
Other derivative instruments	—	—	2	2
GLB <sup>(2)</sup>	—	—	125	125
<b>Total liabilities measured at fair value</b>	<b>\$ 42</b>	<b>\$ —</b>	<b>\$ 127</b>	<b>\$ 169</b>

(1) Excluded from the table above are partially-owned investments, investment funds, and limited partnerships of \$ 4,224 million and other investments of \$ 21 million at June 30, 2018 measured using NAV as a practical expedient.

(2) Our GLB reinsurance product meets the definition of a derivative instrument for accounting purposes and is accordingly carried at fair value. Excluded from the table above is the portion of the GLB derivative liability classified as Future policy benefits in the Consolidated balance sheets.

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December 31, 2017

(in millions of U.S. dollars)

	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
<i>Fixed maturities available for sale</i>				
U.S. Treasury and agency	\$ 3,129	\$ 569	\$ —	\$ 3,698
Foreign	—	20,937	93	21,030
Corporate securities	—	22,959	1,037	23,996
Mortgage-backed securities	—	15,212	78	15,290
States, municipalities, and political subdivisions	—	14,925	—	14,925
	3,129	74,602	1,208	78,939
Equity securities	893	—	44	937
Short-term investments	2,309	1,252	—	3,561
Other investments <sup>(1)</sup>	466	305	263	1,034
Securities lending collateral	—	1,737	—	1,737
Investment derivative instruments	18	—	—	18
Other derivative instruments	1	—	—	1
Separate account assets	2,635	99	—	2,734
<b>Total assets measured at fair value <sup>(1)</sup></b>	<b>\$ 9,451</b>	<b>\$ 77,995</b>	<b>\$ 1,515</b>	<b>\$ 88,961</b>
<b>Liabilities:</b>				
Investment derivative instruments	\$ 30	\$ —	\$ —	\$ 30
Other derivative instruments	21	—	2	23
GLB <sup>(2)</sup>	—	—	204	204
<b>Total liabilities measured at fair value</b>	<b>\$ 51</b>	<b>\$ —</b>	<b>\$ 206</b>	<b>\$ 257</b>

(1) Excluded from the table above are partially-owned investments, investment funds, and limited partnerships of \$3,623 million and other investments of \$15 million at December 31, 2017 measured using NAV as a practical expedient.

(2) Our GLB reinsurance product meets the definition of a derivative instrument for accounting purposes and is accordingly carried at fair value. Excluded from the table above is the portion of the GLB derivative liability classified as Future policy benefits in the Consolidated balance sheets.

There were no transfers of financial instruments between Level 1 and Level 2 for both the three and six months ended June 30, 2018 and 2017.

**Fair value 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:

(in millions of U.S. dollars)	Expected Liquidation Period of Underlying Assets	June 30 2018		December 31 2017	
		Fair Value	Maximum Future Funding Commitments	Fair Value	Maximum Future Funding Commitments
Financial	5 to 9 Years	\$ 569	\$ 281	\$ 540	\$ 330
Real Assets	3 to 7 Years	673	192	651	114
Distressed	3 to 7 Years	279	131	289	141
Private Credit	3 to 7 Years	184	308	187	327
Traditional	3 to 15 Years	2,177	2,529	1,656	3,149
Vintage	1 to 2 Years	64	—	30	—
Investment funds	Not Applicable	278	—	270	—
		\$ 4,224	\$ 3,441	\$ 3,623	\$ 4,061

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Included in all categories in the above table, except for Investment funds, are investments for which Chubb 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, Chubb does not have the ability to sell or transfer the investments without the consent from the general partner of individual funds.

<b>Investment Category:</b>	<b>Consists of investments in private equity funds:</b>
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 corporate 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**

Chubb's investment funds employ various investment strategies such as long/short equity and arbitrage/distressed. Included in this category are investments for which Chubb 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 Chubb 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 Chubb 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, Chubb 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 Chubb's investment within several months of the notification. Notice periods for redemption of the investment funds range between 5 and 120 days. Chubb can redeem its investment funds without consent from the investment fund managers.

**Level 3 financial instruments**

The fair values of assets and liabilities 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 the significant unobservable inputs used in the Level 3 liability valuations. Excluded from the table below are inputs used to determine the fair value of Level 3 assets which are based on single broker quotes and contain no quantitative unobservable inputs developed by management.

(in millions of U.S. dollars, except for percentages)	Fair Value		Valuation Technique	Significant Unobservable Inputs	Ranges
	June 30, 2018	December 31, 2017			
GLB <sup>(1)</sup>	\$ 125	\$ 204	Actuarial model	Lapse rate	3% – 33%
				Annuitization rate	0% – 100%

(1) Discussion of the most significant inputs used in the fair value measurement of GLB and the sensitivity of those assumptions is included within Note 3 a) Guaranteed living benefits.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

The following tables present a reconciliation of the beginning and ending balances of financial instruments measured at fair value using significant unobservable inputs (Level 3):

Three Months Ended	Assets						Liabilities	
	Available-for-Sale Debt Securities						Other derivative instruments	GLB <sup>(2)</sup>
June 30, 2018 (in millions of U.S. dollars)	Foreign	Corporate securities <sup>(1)</sup>	MBS	Equity securities	Short-term investments	Other investments		
Balance – beginning of period	\$ 176	\$ 1,073	\$ 83	\$ 64	\$ 12	\$ 270	\$ 2	\$ 167
Transfers into Level 3	—	6	—	—	—	—	—	—
Transfers out of Level 3	—	—	—	—	—	—	—	—
Change in Net Unrealized Gains (Losses) included in OCI, including foreign exchange	(7)	(9)	—	—	—	—	—	—
Net Realized Gains/Losses	—	2	—	(3)	—	1	—	(42)
Purchases	95	217	—	3	1	16	—	—
Sales	(11)	(45)	—	(5)	—	—	—	—
Settlements	(1)	(63)	(1)	—	(1)	(23)	—	—
Balance – end of period	\$ 252	\$ 1,181	\$ 82	\$ 59	\$ 12	\$ 264	\$ 2	\$ 125
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	\$ —	\$ —	\$ —	\$ (3)	\$ —	\$ 1	\$ —	\$ (42)

(1) Purchases in Level 3 primarily consist of privately-placed fixed income securities.

(2) Our GLB reinsurance product meets the definition of a derivative instrument for accounting purposes and is accordingly carried at fair value. Excluded from the table above is the portion of the GLB derivative liability classified as Future policy benefits in the Consolidated balance sheets. The liability for GLB reinsurance was \$497 million at June 30, 2018, and \$529 million at March 31, 2018, which includes a fair value derivative adjustment of \$125 million and \$167 million, respectively.

Three Months Ended	Assets						Liabilities	
	Available-for-Sale Debt Securities						Other derivative instruments	GLB <sup>(1)</sup>
June 30, 2017 (in millions of U.S. dollars)	Foreign	Corporate securities	MBS	Equity securities	Short-term investments	Other investments		
Balance – beginning of period	\$ 80	\$ 737	\$ 45	\$ 41	\$ 21	\$ 233	\$ 11	\$ 466
Transfers into Level 3	—	28	—	—	—	—	—	9
Transfers out of Level 3	—	(13)	—	—	—	—	(9)	—
Change in Net Unrealized Gains (Losses) included in OCI, including foreign exchange	3	—	—	1	—	(1)	—	—
Net Realized Gains/Losses	2	—	—	—	—	—	—	(118)
Purchases	19	65	—	6	7	16	—	—
Sales	(19)	(28)	—	(9)	—	—	—	—
Settlements	—	(42)	—	—	(21)	(5)	—	—
Balance – end of period	\$ 85	\$ 747	\$ 45	\$ 39	\$ 7	\$ 243	\$ 2	\$ 357
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ (118)

(1) Our GLB reinsurance product meets the definition of a derivative instrument for accounting purposes and is accordingly carried at fair value. Excluded from the table above is the portion of the GLB derivative liability classified as Future policy benefits in the Consolidated balance sheets. The liability for GLB reinsurance was \$684 million at June 30, 2017, and \$774 million at March 31, 2017, which includes a fair value derivative adjustment of \$357 million and \$466 million, respectively.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

Six Months Ended	Assets						Liabilities	
	Available-for-Sale Debt Securities						Other derivative instruments	GLB <sup>(2)</sup>
June 30, 2018 (in millions of U.S. dollars)	Foreign	Corporate securities <sup>(1)</sup>	MBS	Equity securities	Short-term investments	Other investments		
Balance – beginning of period	\$ 93	\$ 1,037	\$ 78	\$ 44	\$ —	\$ 263	\$ 2	\$ 204
Transfers into Level 3	7	6	1	—	5	—	—	—
Transfers out of Level 3	—	(10)	—	—	—	—	—	—
Change in Net Unrealized Gains (Losses) included in OCI, including foreign exchange	2	(12)	—	1	—	2	—	—
Net Realized Gains/Losses	—	2	—	(1)	—	1	—	(79)
Purchases	182	356	4	20	9	30	—	—
Sales	(30)	(96)	—	(5)	—	—	—	—
Settlements	(2)	(102)	(1)	—	(2)	(32)	—	—
Balance – end of period	\$ 252	\$ 1,181	\$ 82	\$ 59	\$ 12	\$ 264	\$ 2	\$ 125
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	\$ —	\$ —	\$ —	\$ (1)	\$ —	\$ 1	\$ —	\$ (79)

(1) Purchases in Level 3 primarily consist of privately-placed fixed income securities.

(2) Our GLB reinsurance product meets the definition of a derivative instrument for accounting purposes and is accordingly carried at fair value. Excluded from the table above is the portion of the GLB derivative liability classified as Future policy benefits in the Consolidated balance sheets. The liability for GLB reinsurance was \$497 million at June 30, 2018, and \$550 million at December 31, 2017, which includes a fair value derivative adjustment of \$125 million and \$204 million, respectively.

Six Months Ended	Assets						Liabilities	
	Available-for-Sale Debt Securities						Other derivative instruments	GLB <sup>(1)</sup>
June 30, 2017 (in millions of U.S. dollars)	Foreign	Corporate securities	MBS	Equity securities	Short-term investments	Other investments		
Balance – beginning of period	\$ 74	\$ 681	\$ 45	\$ 41	\$ 25	\$ 225	\$ 13	\$ 559
Transfers into Level 3	—	57	—	—	—	—	—	9
Transfers out of Level 3	—	(67)	—	—	—	—	(9)	—
Change in Net Unrealized Gains (Losses) included in OCI, including foreign exchange	2	(8)	—	1	—	3	—	—
Net Realized Gains/Losses	1	(1)	—	—	—	—	(2)	(211)
Purchases	33	221	1	6	14	24	—	—
Sales	(22)	(55)	(1)	(9)	—	—	—	—
Settlements	(3)	(81)	—	—	(32)	(9)	—	—
Balance – end of period	\$ 85	\$ 747	\$ 45	\$ 39	\$ 7	\$ 243	\$ 2	\$ 357
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ (2)	\$ (211)

(1) Our GLB reinsurance product meets the definition of a derivative instrument for accounting purposes and is accordingly carried at fair value. Excluded from the table above is the portion of the GLB derivative liability classified as Future policy benefits in the Consolidated balance sheets. The liability for GLB reinsurance was \$684 million at June 30, 2017, and \$853 million at December 31, 2016, which includes a fair value derivative adjustment of \$357 million and \$559 million, respectively.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**b) Financial instruments disclosed, but not measured, at fair value**

Chubb uses various financial instruments in the normal course of its business. Our insurance contracts are excluded from fair value of financial instruments accounting guidance, and therefore, are not included in the amounts discussed below.

The carrying values of cash, other assets, other liabilities, and other financial instruments not included below approximated their fair values.

Refer to the 2017 Form 10-K for information on the fair value methods and assumptions for investments in partially-owned insurance companies, short-term and long-term debt, repurchase agreements, and trust-preferred securities.

The following tables present fair value, by valuation hierarchy, and carrying value of the financial instruments not measured at fair value:

June 30, 2018 (in millions of U.S. dollars)	Fair Value			Total	Carrying Value
	Level 1	Level 2	Level 3		
<b>Assets:</b>					
<i>Fixed maturities held to maturity</i>					
U.S. Treasury and agency	\$ 1,079	\$ 54	\$ —	\$ 1,133	\$ 1,143
Foreign	—	1,675	—	1,675	1,678
Corporate securities	—	2,633	32	2,665	2,736
Mortgage-backed securities	—	2,585	—	2,585	2,640
States, municipalities, and political subdivisions	—	5,607	—	5,607	5,663
<b>Total assets</b>	<b>\$ 1,079</b>	<b>\$ 12,554</b>	<b>\$ 32</b>	<b>\$ 13,665</b>	<b>\$ 13,860</b>
<b>Liabilities:</b>					
Repurchase agreements	\$ —	\$ 1,413	\$ —	\$ 1,413	\$ 1,413
Short-term debt	—	615	—	615	600
Long-term debt	—	12,296	—	12,296	12,184
Trust preferred securities	—	433	—	433	308
<b>Total liabilities</b>	<b>\$ —</b>	<b>\$ 14,757</b>	<b>\$ —</b>	<b>\$ 14,757</b>	<b>\$ 14,505</b>

December 31, 2017 (in millions of U.S. dollars)	Fair Value			Total	Carrying Value
	Level 1	Level 2	Level 3		
<b>Assets:</b>					
<i>Fixed maturities held to maturity</i>					
U.S. Treasury and agency	\$ 857	\$ 58	\$ —	\$ 915	\$ 908
Foreign	—	1,757	—	1,757	1,738
Corporate securities	—	3,184	35	3,219	3,159
Mortgage-backed securities	—	2,742	—	2,742	2,724
States, municipalities, and political subdivisions	—	5,841	—	5,841	5,806
<b>Total assets</b>	<b>\$ 857</b>	<b>\$ 13,582</b>	<b>\$ 35</b>	<b>\$ 14,474</b>	<b>\$ 14,335</b>
<b>Liabilities:</b>					
Repurchase agreements	\$ —	\$ 1,408	\$ —	\$ 1,408	\$ 1,408
Short-term debt	—	1,013	—	1,013	1,013
Long-term debt	—	12,332	—	12,332	11,556
Trust preferred securities	—	468	—	468	308
<b>Total liabilities</b>	<b>\$ —</b>	<b>\$ 15,221</b>	<b>\$ —</b>	<b>\$ 15,221</b>	<b>\$ 14,285</b>

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**4 . Unpaid losses and loss expenses**

The following table presents a reconciliation of beginning and ending Unpaid losses and loss expenses:

(in millions of U.S. dollars)	Six Months Ended June 30	
	2018	2017
Gross unpaid losses and loss expenses – beginning of period	\$ 63,179	\$ 60,540
Reinsurance recoverable on unpaid losses - beginning of period <sup>(1)</sup>	(14,014)	(12,708)
Net unpaid losses and loss expenses – beginning of period	49,165	47,832
Net losses and loss expenses incurred in respect of losses occurring in:		
Current year	9,026	8,396
Prior years <sup>(2)</sup>	(437)	(461)
Total	8,589	7,935
Net losses and loss expenses paid in respect of losses occurring in:		
Current year	2,346	2,271
Prior years	6,269	5,758
Total	8,615	8,029
Foreign currency revaluation and other	(96)	171
Net unpaid losses and loss expenses – end of period	49,043	47,909
Reinsurance recoverable on unpaid losses <sup>(3)</sup>	13,735	12,485
Gross unpaid losses and loss expenses – end of period	\$ 62,778	\$ 60,394

(1) Net of provision for uncollectible reinsurance of \$321 million and \$300 million at December 31, 2017 and 2016, respectively.

(2) Relates to prior period loss reserve development only and excludes prior period development related to reinstatement premiums, expense adjustments, and earned premiums totaling \$37 million and \$60 million for the six months ended June 30, 2018 and 2017, respectively.

(3) Net of provision for uncollectible reinsurance of \$319 million and \$335 million at June 30, 2018 and 2017, respectively.

The decrease in net unpaid losses and loss expenses from December 31, 2017 was primarily due to payments related to the 2017 catastrophic events.

**Prior Period Development**

Prior period development arises from changes to loss estimates recognized in the current year that relate to loss events that occurred in previous calendar years and excludes the effect of losses from the development of earned premium from previous accident years. Significant prior period movements by segment, principally driven by reserve reviews completed during each respective period, are discussed in more detail below. The remaining net development for long-tail lines and short-tail business for each segment and Corporate comprises numerous favorable and adverse movements across a number of lines and accident years, none of which is significant individually or in the aggregate.

Long-tail lines include lines such as workers' compensation, general liability, and professional liability; while short-tail lines include lines such as most property lines, energy, personal accident, and agriculture. During the third quarter of 2017, we determined that the loss development classification for certain businesses, previously grouped within the short-tail column in the table below, would be more appropriately grouped within the long-tail column to better align with the classification of these businesses within our loss development triangles in our Form 10-K. We also determined that the loss development for certain other businesses should be reclassified from long-tail to short-tail. We updated the 2017 amounts below to conform to the current period presentation and reclassified \$2 million of net favorable development and \$3 million of net adverse development into long-tail from short-tail for the three and six months ended June 30, 2017, respectively. These changes to the previously disclosed amounts have no impact to our financial condition and results of operations.

Favorable prior period development for the three months ended June 30, 2018 of \$191 million included \$236 million of favorable development, of which \$136 million was long-tail lines, principally for the 2014 and prior accident years, \$64 million was short-tail lines, and \$36 million was related to the 2017 catastrophe events. The favorable development was offset by \$45 million of adverse development related to our run-off non-A&E casualty exposures.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

Favorable prior period development for the six months ended June 30, 2018 of \$400 million included \$455 million of favorable development, of which \$125 million was long-tail lines, principally for 2014 and prior accident years, \$188 million was short-tail lines, principally related to our Crop insurance business, and \$142 million was related to the 2017 catastrophe events. The favorable development was offset by \$55 million of adverse development related to our run-off non-A&E casualty exposures.

(in millions of U.S. dollars)	Three Months Ended June 30			Six Months Ended June 30		
	Long-tail	Short-tail	Total	Long-tail	Short-tail	Total
<b>2018</b>						
North America Commercial P&C Insurance	\$ (104)	\$ (51)	\$ (155)	\$ (96)	\$ (160)	\$ (256)
North America Personal P&C Insurance	—	7	7	—	1	1
North America Agricultural Insurance	—	—	—	—	(76)	(76)
Overseas General Insurance	(2)	(70)	(72)	(2)	(92)	(94)
Global Reinsurance	(30)	14	(16)	(30)	—	(30)
Corporate	45	—	45	55	—	55
<b>Total</b>	<b>\$ (91)</b>	<b>\$ (100)</b>	<b>\$ (191)</b>	<b>\$ (73)</b>	<b>\$ (327)</b>	<b>\$ (400)</b>
<b>2017</b>						
North America Commercial P&C Insurance	\$ (83)	\$ (48)	\$ (131)	\$ (177)	\$ (133)	\$ (310)
North America Personal P&C Insurance	—	37	37	—	34	34
North America Agricultural Insurance	—	—	—	—	(79)	(79)
Overseas General Insurance	—	(88)	(88)	32	(108)	(76)
Global Reinsurance	(36)	5	(31)	(28)	5	(23)
Corporate	43	—	43	53	—	53
<b>Total</b>	<b>\$ (76)</b>	<b>\$ (94)</b>	<b>\$ (170)</b>	<b>\$ (120)</b>	<b>\$ (281)</b>	<b>\$ (401)</b>

**North America Commercial P&C Insurance**
**2018**

For the three months ended June 30, 2018, net favorable PPD was \$155 million, which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$104 million in long-tail business, primarily from:
  - Net favorable development of \$118 million in our workers' compensation lines with favorable development of \$56 million in the 2017 accident year mainly related to our annual assessment of multi-claimant events including industrial accidents. Consistent with prior years, we reviewed these potential exposures after the close of the accident year to allow for late reporting or identification of significant losses. The remaining favorable development is mainly in accident years 2011 and prior, and was principally due to lower than expected loss experience; and
  - Net adverse development of \$14 million, mainly in our automobile liability, commercial-multi peril (CMP) liability, products and general liability lines, driven by adverse paid and reported loss activity relative to prior expectations in accident years 2015 through 2017, partly offset by favorable emergence in older accident years.
- Net favorable development of \$51 million in short-tail business, primarily from:
  - Net favorable development of \$40 million in our commercial property and marine businesses due to favorable claim development on the 2017 natural catastrophes.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

For the six months ended June 30, 2018, net favorable PPD was \$256 million , which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$96 million in long-tail business, primarily from:
  - Net favorable development of \$138 million in our workers' compensation lines mainly due to the same factors experienced for the three months ended June 30, 2018, as described above;
  - Net favorable development of \$29 million in our commercial excess and umbrella portfolios, driven by the 2012 and prior accident years where the cumulative emergence over time has been less than expected overall and an increase in weighting towards experience-based methods, partly offset by several large settlements; additionally there was adverse claim activity in the 2014 and 2015 accident years which led to reserve strengthening in those years;
  - Net favorable development of \$3 million on several lines of business due to favorable claim development on the 2017 natural catastrophes; and
  - Net adverse development of \$74 million , mainly in our automobile liability, commercial-multi peril (CMP) liability, products and general liability lines, due to the same factors experienced for the three months ended June 30, 2018, as described above.
- Net favorable development of \$160 million in short-tail business, primarily from:
  - Net favorable development of \$115 million in our commercial property and marine businesses due to favorable claim development on the 2017 natural catastrophes; and
  - Net favorable development of \$45 million in other short-tail business, including \$19 million in surety and also including several smaller net favorable movements from lower than expected case activity in other classes, such as accident and commercial automobile physical damage, none of which were significant individually or in the aggregate.

**2017**

For the three months ended June 30, 2017, net favorable PPD was \$131 million , which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$83 million in long-tail business, primarily from:
  - Net favorable development of \$75 million in our workers' compensation lines with favorable development of \$57 million in the 2016 accident year related to our annual assessment of multi-claimant events including industrial accidents. Consistent with prior years, we reviewed these potential exposures after the close of the accident year to allow for late reporting or identification of significant losses. Favorable development of \$38 million in accident years 2015 and prior was principally due to lower than expected loss experience and revision to development patterns used in our loss projection methods for select portfolios; and
  - Net favorable development of \$48 million in short-tail business, primarily from favorable development of \$45 million in our commercial property portfolios, driven by lower than expected loss emergence in the 2014 and 2016 accident years.

For the six months ended June 30, 2017, net favorable PPD was \$310 million , which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$177 million in long-tail business, primarily from:

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

- Net favorable development of \$79 million in our workers' compensation lines due to the same factors experienced for the three months ended June 30, 2017, as described above;
  - Net favorable development of \$74 million in our commercial excess and umbrella portfolios, primarily in accident years 2010 and prior, driven by lower than expected reported loss activity, and an increase in weighting towards experience-based methods; and
  - Net favorable development of \$25 million in our professional Errors and Omissions (E&O) portfolios, primarily in the 2012 and 2013 accident years, arising from lower than expected reported loss activity, partially offset by claim-specific adverse development.
- Net favorable development of \$133 million in short-tail business, primarily from:
- Net favorable development of \$45 million in our surety business, primarily due to lower than expected claims severity in the 2015 accident year;
  - Favorable development of \$57 million in our property lines, primarily in our commercial property portfolios, due to the same factors experienced for the three months ended June 30, 2017 as described above; and
  - Net favorable development of \$19 million in our accident & health (A&H) business, primarily due to lower than expected loss emergence in the 2015 and 2016 accident years.

**North America Personal P&C Insurance**

**2018**

For the three and six months ended June 30, 2018, net adverse PPD was \$7 million and \$1 million, respectively, which were the net results of some modest net adverse and favorable movements by class and accident year, including favorable development of \$5 million and \$11 million, respectively, on the 2017 natural catastrophes.

**2017**

For the three and six months ended June 30, 2017, net adverse PPD was \$37 million and \$34 million, respectively, driven primarily by higher than expected case incurred development in our automobile, recreational marine and homeowners lines, mainly in accident years 2012 through 2016.

**North America Agricultural Insurance**

There was no PPD for the three months ended June 30, 2018 and 2017.

For the six months ended June 30, 2018 and 2017, net favorable PPD was \$76 million and \$79 million, respectively. Actual claim development relates to our Multiple Peril Crop Insurance (MPCI) business and is favorable due to better than expected crop yield results in certain states at the prior year-end period (i.e., 2018 results based on crop yield results at year-end 2017).

**Overseas General Insurance**

**2018**

For the three months ended June 30, 2018, net favorable PPD was \$72 million, which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$2 million in long-tail business.
- Net favorable development of \$70 million in short-tail business, primarily from:
  - Net favorable development of \$40 million in property and marine (excluding technical lines), primarily in accident years 2014 through 2016, driven mainly by favorable loss emergence across all regions, including favorable claim-specific loss settlements; and
  - Net favorable development of \$30 million, including \$17 million in personal business and \$16 million in A&H business.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

For the six months ended June 30, 2018, net favorable PPD was \$94 million , which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$2 million in long-tail business.
- Net favorable development of \$92 million in short-tail business, due primarily to the same factors experienced for the three months ended June 30, 2018 as described above, and due to \$12 million of favorable claim development on the 2017 natural catastrophes.

**2017**

For the three months ended June 30, 2017, net favorable PPD was \$88 million , which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$88 million in short-tail business, primarily from:
  - Favorable development of \$37 million in property and marine (excluding technical lines), primarily in accident years 2013 through 2015, driven mainly by favorable U.K. and Continental Europe loss emergence, including favorable claim-specific loss settlements;
  - Favorable development of \$26 million in technical and energy lines, primarily from favorable loss emergence in accident years 2014 through 2016 primarily in offshore where experience has been better than expected; and
  - Favorable development of \$19 million in A&H lines, primarily from favorable loss emergence in Asia Pacific and Continental Europe in accident years 2014 through 2016.

For the six months ended June 30, 2017, net favorable PPD was \$76 million , which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$108 million in short-tail business, due primarily to the same factors experienced for the three months ended June 30, 2017 as described above; and
- Net adverse development of \$32 million in long-tail business, primarily in our casualty lines, driven by a change in the discount rate in the U.K. (Ogden rate) impacting the 2016 and prior accident years.

**Global Reinsurance**

**2018**

For the three months ended June 30, 2018 , net favorable PPD was \$16 million , which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable development of \$30 million in long-tail business, primarily from \$32 million favorable development in our casualty and professional liability lines, primarily impacting treaty years 2013 and prior, principally resulting from lower than expected loss emergence.
- Net adverse development of \$14 million in short-tail business, which included \$9 million of adverse claim development on the 2017 natural catastrophes.

For the six months ended June 30, 2018, net favorable PPD was \$30 million , which was the net result of several underlying favorable and adverse movements, primarily from long-tail business lines discussed above, and in short-tail business due to \$1 million of net favorable claim development on the 2017 natural catastrophes.

**2017**

For the three months ended June 30, 2017, net favorable PPD was \$31 million , which was the net result of several underlying favorable and adverse movements, and was driven by the following principal change:

- Net favorable development of \$36 million in our casualty and professional liability lines, primarily impacting treaty years 2011 and prior, principally resulting from lower than expected loss emergence.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)

Chubb Limited and Subsidiaries

For the six months ended June 30, 2017, net favorable PPD was \$23 million, which was the net result of several underlying favorable and adverse movements, and was driven by the following principal change:

- Net favorable development of \$27 million, comprising \$36 million in our casualty and professional liability lines as described above, as well as adverse development of \$9 million in our motor and excess liability lines, driven by a change in the discount rate in the U.K. (Ogden rate) primarily impacting the 2015 and prior treaty years.

### Corporate 2018

For the three and six months ended June 30, 2018, net adverse development was \$45 million and \$55 million, respectively, from the non A&E run-off casualty exposures, driven by recent net adverse settlements on a limited number of claims and reinsurance collection activity. The net adverse development also included charges relating to unallocated loss adjustment expenses due to run-off operating expenses of \$10 million and \$20 million, respectively.

### 2017

For the three and six months ended June 30, 2017, adverse development was \$43 million and \$53 million, respectively, due principally to development of \$35 million on non A&E run-off casualty exposures due to higher than expected loss activity, and unallocated loss adjustment expenses due to run-off operating expenses paid and incurred in the respective periods of \$8 million and \$18 million, respectively.

## 5 . Debt

In March 2018, Chubb INA Holdings Inc. (Chubb INA) issued € 900 million ( \$1.1 billion based on the foreign exchange rate at the date of issuance) of 1.55 percent Euro denominated senior notes due March 2028 and € 900 million ( \$1.1 billion based on the foreign exchange rate at the date of issuance) of 2.5 percent Euro denominated senior notes due March 2038. These senior notes are redeemable at any time at Chubb INA's option subject to a "make-whole" premium (the present value of the remaining principal and interest discounted at the applicable comparable government bond rate plus 0.15 percent for the senior notes due 2028 and 0.25 percent for the senior notes due 2038). The notes are also redeemable at par plus accrued and unpaid interest in the event of certain changes in tax law. These notes do not have the benefit of any sinking fund. These senior unsecured notes are guaranteed on a senior basis by Chubb and they rank equally with all of Chubb's other senior obligations. They also contain customary limitations on lien provisions as well as customary events of default provisions which, if breached, could result in the accelerated maturity of such senior debt.

Chubb INA's \$300 million of 5.8 percent senior notes due March 2018 and \$600 million of 5.75 percent senior notes due May 2018 were paid upon maturity. During April 2018, we redeemed \$1.0 billion of 6.375 percent unsecured junior subordinated capital securities due to mature in April 2037 and recorded a loss of \$36 million from the extinguishment of debt, which is included in Net realized gains (losses) in the Consolidated statement of operations.

In June 2018, we reclassified \$499 million of the 5.9 percent senior notes ( \$500 million par value due to mature in June 2019) from long-term to short-term debt in the Consolidated balance sheets.

## 6 . Commitments, contingencies, and guarantees

### a) Derivative instruments

#### Foreign currency management

As a global company, Chubb entities transact business in multiple currencies. Our policy is to generally match assets, liabilities, and required capital for each individual jurisdiction in local currency, which would include the use of derivatives discussed below. We do not hedge our net asset non-U.S. dollar capital positions; however, we do consider economic hedging for planned cross border transactions.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**Derivative instruments employed**

Chubb maintains positions in derivative instruments such as futures, options, swaps, 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. Chubb 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, Chubb from time to time purchases to be announced mortgage-backed securities (TBAs) as part of its investing activities.

Under reinsurance programs covering GLBs, Chubb assumes the risk of GLBs (principally GMIB) associated with variable annuity contracts. The GMIB risk is triggered if, at the time the contract holder elects to convert the accumulated account value to a periodic payment stream (annuitize), the accumulated account value is not sufficient to provide a guaranteed minimum level of monthly income. The GLB reinsurance product meets the definition of a derivative instrument. Benefit reserves in respect of GLBs are classified as Future policy benefits (FPB) while the fair value derivative adjustment is classified within AP. Chubb also generally maintains positions in exchange-traded equity futures contracts on equity market indices to limit equity exposure in the GMDB and GLB blocks of business.

All derivative instruments are carried at fair value with changes in fair value recorded in Net realized gains (losses) in the Consolidated statements of operations. None of the derivative instruments are designated as hedges for accounting purposes.

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:

(in millions of U.S. dollars)	Consolidated Balance Sheet Location	June 30, 2018			December 31, 2017		
		Derivative Asset	Fair Value Derivative (Liability)	Notional Value/ Payment Provision	Derivative Asset	Fair Value Derivative (Liability)	Notional Value/ Payment Provision
<i>Investment and embedded derivative instruments:</i>							
Foreign currency forward contracts	OA / (AP)	\$ 33	\$ (36)	\$ 2,364	\$ 14	\$ (27)	\$ 2,064
Cross-currency swaps	OA / (AP)	—	—	45	—	—	45
Options/Futures contracts on notes and bonds	OA / (AP)	6	(6)	1,409	4	(3)	1,007
Convertible securities <sup>(1)</sup>	FM AFS / ES	9	—	10	5	—	6
		\$ 48	\$ (42)	\$ 3,828	\$ 23	\$ (30)	\$ 3,122
<i>Other derivative instruments:</i>							
Futures contracts on equities <sup>(2)</sup>	OA / (AP)	\$ 32	\$ —	\$ 1,632	\$ —	\$ (21)	\$ 1,553
Other	OA / (AP)	18	(2)	351	1	(2)	75
		\$ 50	\$ (2)	\$ 1,983	\$ 1	\$ (23)	\$ 1,628
GLB <sup>(3)</sup>	(AP) / (FPB)	\$ —	\$ (497)	\$ 1,163	\$ —	\$ (550)	\$ 1,083

(1) Includes fair value of embedded derivatives.

(2) Related to GMDB and GLB blocks of business.

(3) Includes both future policy benefits reserves and fair value derivative adjustment. Note that the payment provision related to GLB is the net amount at risk. The concept of a notional value does not apply to the GLB reinsurance contracts.

At June 30, 2018 and December 31, 2017, derivative assets of \$53 million and derivative liabilities of \$24 million, respectively, 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.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

The following table presents net realized gains (losses) related to derivative instrument activity in the Consolidated statements of operations:

(in millions of U.S. dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
<b>Investment and embedded derivative instruments:</b>				
Foreign currency forward contracts	\$ 3	\$ (7)	\$ 7	\$ 7
All other futures contracts and options	21	(9)	34	(17)
Total investment and embedded derivative instruments	\$ 24	\$ (16)	\$ 41	\$ (10)
<b>GLB and other derivative instruments:</b>				
GLB <sup>(1)</sup>	\$ 41	\$ 118	\$ 79	\$ 211
Futures contracts on equities <sup>(2)</sup>	(44)	(38)	(22)	(112)
Other	8	(1)	10	1
Total GLB and other derivative instruments	\$ 5	\$ 79	\$ 67	\$ 100
	\$ 29	\$ 63	\$ 108	\$ 90

(1) Excludes foreign exchange gains (losses) related to GLB.

(2) Related to GMDB and GLB blocks of business.

**b) 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. Chubb uses forwards to minimize the effect of fluctuating foreign currencies as discussed above.

**(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.

Exchange-traded equity futures contracts are used to limit exposure to a severe equity market decline, which would cause an increase in expected claims and therefore, an increase in reserves for GMDB and GLB reinsurance business.

**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 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 our investment guidelines.

**Cross-currency swaps**

Cross-currency swaps are agreements under which two counterparties exchange interest payments and principal denominated in different currencies at a future date. We use cross-currency swaps to reduce the foreign currency and interest rate risk by

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

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converting cash flows back into local currency. We invest in foreign currency denominated investments to improve credit diversification and also to obtain better duration matching to our liabilities that is limited in the local currency market.

**Other**

Included within Other are derivatives intended to reduce potential losses which may arise from certain exposures in our insurance business. The economic benefit provided by these derivatives is similar to purchased reinsurance. For example, Chubb may enter into crop derivative contracts to protect underwriting results in the event of a significant decline in commodity prices.

**(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. Chubb 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. Chubb purchases TBAs both for their total return and for the flexibility they provide related to our mortgage-backed security strategy.

**(v) GLB**

Under the GLB program, as the assuming entity, Chubb is obligated to provide coverage until the expiration or maturity of the underlying deferred annuity contracts or the expiry of the reinsurance treaty. Premiums received under the reinsurance treaties are classified as premium. Expected losses allocated to premiums received are classified as Future policy benefits and valued similar to GMDB reinsurance. Other changes in fair value, principally arising from changes in expected losses allocated to expected future premiums, are classified as Net realized gains (losses). Fair value represents management's estimate of an exit price and thus, includes a risk margin. We may recognize a realized loss for other changes in fair value due to adverse changes in the capital markets (e.g., declining interest rates and/or declining equity markets) and changes in actual or estimated future policyholder behavior (e.g., increased annuitization or decreased lapse rates) although we expect the business to be profitable. We believe this presentation provides the most meaningful disclosure of changes in the underlying risk within the GLB reinsurance programs for a given reporting period.

**c) Securities lending and secured borrowings**

Chubb 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. The securities lending collateral can only be drawn down by Chubb 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.

Potential risks exist in our secured borrowing transactions due to market conditions and counterparty exposure. With collateral that we pledge, there is a risk that the collateral may not be returned at the expiration of the agreement. If the counterparty fails to return the collateral, Chubb will have free use of the borrowed funds until our collateral is returned. In addition, we may encounter the risk that Chubb may not be able to renew outstanding borrowings with a new term or with an existing counterparty due to market conditions including a decrease in demand as well as more restrictive terms from banks due to increased regulatory and capital constraints. Should this condition occur, Chubb may seek alternative borrowing sources or reduce borrowings. Additionally, increased margins and collateral requirements due to market conditions would increase our restricted assets as we are required to provide additional collateral to support the transaction.

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

(in millions of U.S. dollars)	Remaining contractual maturity	
	June 30	December 31
	2018	2017
Overnight and Continuous		
<i>Collateral held under securities lending agreements:</i>		
Cash	\$ 990	\$ 828
U.S. Treasury and agency	100	36
Foreign	909	712
Corporate securities	14	—
Mortgage-backed securities	55	74
Equity securities	287	87
	\$ 2,355	\$ 1,737
Gross amount of recognized liability for securities lending payable	\$ 2,355	\$ 1,737

At June 30, 2018 and December 31, 2017, our repurchase agreement obligations of \$1,413 million and \$1,408 million, respectively, were fully collateralized. In contrast to securities lending programs, the use of cash received is not restricted for the repurchase obligations. The fair value of the underlying securities sold remains in Fixed maturities available for sale and the repurchase agreement obligation is recorded in Repurchase agreements in the Consolidated balance sheets.

The following table presents the carrying value of collateral pledged under repurchase agreements by investment category and remaining contractual maturity of the underlying agreements:

(in millions of U.S. dollars)	Remaining contractual maturity					
	June 30, 2018			December 31, 2017		
	Up to 30 Days	Greater than 90 Days	Total	Up to 30 Days	Greater than 90 Days	Total
<i>Collateral pledged under repurchase agreements:</i>						
U.S. Treasury and agency	\$ 245	\$ 9	\$ 254	\$ 9	\$ 230	\$ 239
Mortgage-backed securities	333	862	1,195	369	826	1,195
	\$ 578	\$ 871	\$ 1,449	\$ 378	\$ 1,056	\$ 1,434
Gross amount of recognized liabilities for repurchase agreements			\$ 1,413			\$ 1,408
Difference <sup>(1)</sup>			\$ 36			\$ 26

<sup>(1)</sup> Per the repurchase agreements, the amount of collateral posted is required to exceed the amount of gross liability.

**d) Fixed maturities**

At June 30, 2018, we have commitments to purchase fixed income securities of \$948 million over the next several years.

**e) Other investments**

At June 30, 2018, included in Other investments in the Consolidated balance sheets are investments in limited partnerships and partially-owned investment companies with a carrying value of \$3.9 billion. In connection with these investments, we have commitments that may require funding of up to \$3.4 billion over the next several years.

**f) Taxation**

At June 30, 2018, \$14 million of unrecognized tax benefits remain outstanding. It is reasonably possible that over the next twelve months, the amount of unrecognized tax benefits may change resulting from the re-evaluation of unrecognized tax

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

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benefits arising from examinations by taxing authorities and the closing of tax statutes of limitations. With few exceptions, Chubb is no longer subject to state and local or non-U.S. income tax examinations for years before 2010.

**g) Legal proceedings**

Our insurance subsidiaries are subject to claims litigation involving disputed interpretations of policy coverages and, in some jurisdictions, direct actions by allegedly-injured persons seeking damages from policyholders. These lawsuits, involving claims on policies issued by our subsidiaries which are typical to the insurance industry in general and in the normal course of business, are considered in our loss and loss expense reserves. In addition to claims litigation, we are 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 typically involves, among other things, allegations of underwriting errors or misconduct, employment claims, regulatory activity, or disputes arising from our business ventures. In the opinion of management, our ultimate liability for these matters could be, but we believe is not likely to be, material to our consolidated financial condition and results of operations.

**7. Shareholders' equity**

All of Chubb's Common Shares are authorized under Swiss corporate law. Though the par value of Common Shares is stated in Swiss francs, Chubb continues to use U.S. dollars as its reporting currency for preparing consolidated financial statements. Under Swiss corporate law, dividends, including distributions through a reduction in par value (par value reduction) or from legal reserves, must be stated in Swiss francs though dividend payments are made by Chubb in U.S. dollars. At June 30, 2018, our Common Shares had a par value of CHF 24.15 per share.

At our May 2017 and 2016 annual general meetings, our shareholders approved an annual dividend for the following year of up to \$2.84 per share and \$ 2.76 per share, respectively, which were paid in four quarterly installments of \$0.71 per share and \$ 0.69 per share, respectively, at dates determined by the Board of Directors (Board) after the annual general meetings by way of a distribution from capital contribution reserves, transferred to free reserves for payment.

At our May 2018 annual general meeting, our shareholders approved an annual dividend for the following year of up to \$2.92 per share, expected to be paid in four quarterly installments of \$0.73 per share after the general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment. The Board will determine the record and payment dates at which the annual dividend may be paid until the date of the 2019 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion.

The following table presents dividend distributions per Common Share in Swiss francs (CHF) and U.S. dollars (USD):

	Three Months Ended				Six Months Ended			
	June 30				June 30			
	2018		2017		2018		2017	
	CHF	USD	CHF	USD	CHF	USD	CHF	USD
Total dividend distributions per common share	0.73	\$ 0.73	0.69	\$ 0.71	1.39	\$ 1.44	1.38	\$ 1.40

Common Shares in treasury are used principally for issuance upon the exercise of employee stock options, grants of restricted stock, and purchases under the Employee Stock Purchase Plan (ESPP). At June 30, 2018, 16,281,700 Common Shares remain in treasury after net shares redeemed under employee share-based compensation plans.

**Chubb Limited securities repurchase authorization**

In November 2016, the Board authorized a share repurchase program of \$1.0 billion of Chubb's Common Shares through December 31, 2017. In December 2017, the Board authorized a share repurchase program of \$1.0 billion of Chubb's Common Shares from January 1, 2018 through December 31, 2018.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

The following table presents repurchases of Chubb's Common Shares conducted in a series of open market transactions under the Board authorizations:

(in millions of U.S. dollars, except share data)	Three Months Ended June 30		Six Months Ended June 30		July 1, 2018 through July 31, 2018
	2018	2017	2018	2017	
Number of shares repurchased	2,443,855	2,381,566	2,443,855	3,417,630	740,869
Cost of shares repurchased	\$ 324	\$ 335	\$ 324	\$ 475	\$ 100
Repurchase authorization remaining at end of period	\$ 676	\$ 525	\$ 676	\$ 525	\$ 576

**8 . Share-based compensation**

The Chubb Limited 2016 Long-Term Incentive Plan (the 2016 LTIP) permits grants of both incentive and non-qualified stock options principally at an option price per share equal to the grant date fair value of Chubb's Common Shares. Stock options are generally granted with a 3-year vesting period and a 10-year term. Stock options typically vest in equal annual installments over the vesting period, which is also the requisite service period. On February 22, 2018, Chubb granted 1,841,329 stock options with a weighted-average grant date fair value of \$29.71 each. The fair value of the options issued is estimated on the grant date using the Black-Scholes option pricing model.

The 2016 LTIP also permits grants of service-based restricted stock and restricted stock units as well as performance-based restricted stock awards. Chubb generally grants service-based restricted stock and restricted stock units with a 4-year vesting period, based on a graded vesting schedule. Beginning in 2017, the performance-based stock awards granted comprise target awards which have 3-year cliff vesting provisions based on tangible book value (shareholders' equity less goodwill and intangible assets, net of tax) per share growth and P&C combined ratio compared to a defined group of peer companies. Premium performance-based stock awards are earned only if tangible book value per share growth and the P&C combined ratio over the cumulative 3-year period after the grant of the associated target awards exceed a higher threshold compared to our peer group, with an additional vesting provision based on total shareholder return compared to our peer group. The restricted stock is granted at market close price on the grant date. On February 22, 2018, Chubb granted 973,624 service-based restricted stock awards, 301,024 service-based restricted stock units, and 180,065 performance-based stock awards to employees and officers with a grant date fair value of \$143.07 each. Each restricted stock unit represents our obligation to deliver to the holder one Common Share upon vesting.

**9 . Postretirement benefits**

The components of net pension and other postretirement benefit costs (benefits) reflected in Net income in the Consolidated statements of operations were as follows:

Three Months Ended June 30 (in millions of U.S. dollars)	Pension Benefits				Other Postretirement Benefits	
	2018		2017		2018	2017
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans		
Service cost	\$ 15	\$ 3	\$ 16	\$ 4	\$ —	\$ 2
Interest cost	27	7	26	7	1	—
Expected return on plan assets	(53)	(13)	(48)	(10)	(1)	(1)
Amortization of net actuarial loss	—	—	—	1	—	—
Amortization of prior service cost	—	—	—	—	(22)	(23)
Curtailments	—	—	—	(8)	(1)	—
Settlements	1	—	—	—	—	—
Net periodic (benefit) cost	\$ (10)	\$ (3)	\$ (6)	\$ (6)	\$ (23)	\$ (22)

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

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Six Months Ended June 30 (in millions of U.S. dollars)	2018				Pension Benefits		Other Postretirement Benefits	
	U.S. Plans		Non-U.S. Plans		2017		2018	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	2017	2018	2017	
Service cost	\$ 29	\$ 6	\$ 32	\$ 8	\$ —	\$ —	\$ 2	
Interest cost	53	14	52	14	2	—	1	
Expected return on plan assets	(106)	(26)	(95)	(20)	(2)	—	(2)	
Amortization of net actuarial loss	—	—	—	1	—	—	—	
Amortization of prior service cost	—	—	—	—	(43)	—	(46)	
Curtailments	—	—	—	(8)	(1)	—	—	
Settlements	1	—	—	—	—	—	—	
Net periodic (benefit) cost	\$ (23)	\$ (6)	\$ (11)	\$ (5)	\$ (44)	\$ —	\$ (45)	

**10 . Segment information**

Chubb operates through six business segments: North America Commercial P&C Insurance, North America Personal P&C Insurance, North America Agricultural Insurance, Overseas General Insurance, Global Reinsurance, and Life Insurance.

Corporate results primarily include income and expenses not attributable to reportable segments and loss and loss expenses of asbestos and environmental (A&E) liabilities.

For segment reporting purposes, certain items are presented in a different manner below than in the consolidated financial statements. Management uses underwriting income (loss) as the main measures of segment performance. Chubb calculates underwriting income (loss) by subtracting Losses and loss expenses, Policy benefits, Policy acquisition costs, and Administrative expenses from Net premiums earned. To calculate Segment income (loss), include Net investment income, Other (income) expense, and Amortization of purchased intangibles. For the North America Agricultural Insurance segment, management includes gains and losses on crop derivatives as a component of underwriting income (loss). For example, for the three months ended June 30, 2018, underwriting income in our North America Agricultural Insurance segment was \$43 million . This amount includes \$8 million of realized gains related to crop derivatives which are reported in Net realized gains (losses) below.

For the Life Insurance segment, management includes Net investment income and (Gains) losses from fair value changes in separate account assets that do not qualify for separate account reporting under GAAP as components of Life Insurance underwriting income. For example, for the three months ended June 30, 2018, Life Insurance underwriting income of \$75 million includes Net investment income of \$85 million and losses from fair value changes in separate account assets of \$10 million . The gains (losses) from fair value changes in separate account assets are reported in Other (income) expense in the table below.

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The following tables present the Statement of Operations by segment:

For the Three Months Ended

June 30, 2018 (in millions of U.S. dollars)	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Life Insurance	Corporate	Chubb Consolidated
Net premiums written	\$ 3,331	\$ 1,335	\$ 388	\$ 2,199	\$ 197	\$ 565	\$ —	\$ 8,015
Net premiums earned	3,277	1,156	351	2,161	167	552	—	7,664
Losses and loss expenses	2,084	728	289	1,071	83	184	48	4,487
Policy benefits	—	—	—	—	—	150	—	150
Policy acquisition costs	448	228	26	584	40	138	—	1,464
Administrative expenses	253	68	1	266	9	80	70	747
<b>Underwriting income (loss)</b>	<b>492</b>	<b>132</b>	<b>35</b>	<b>240</b>	<b>35</b>	<b>—</b>	<b>(118)</b>	<b>816</b>
Net investment income (loss)	510	59	6	155	65	85	(52)	828
Other (income) expense	(13)	1	1	(12)	(6)	8	(94)	(115)
Amortization expense of purchased intangibles	—	3	7	11	—	—	64	85
<b>Segment income (loss)</b>	<b>\$ 1,015</b>	<b>\$ 187</b>	<b>\$ 33</b>	<b>\$ 396</b>	<b>\$ 106</b>	<b>\$ 77</b>	<b>\$ (140)</b>	<b>\$ 1,674</b>
Net realized gains (losses) including OTTI							18	18
Interest expense							167	167
Chubb integration expenses							13	13
Income tax expense							218	218
<b>Net income (loss)</b>							<b>\$ (520)</b>	<b>\$ 1,294</b>

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For the Three Months Ended									
June 30, 2017	North America Commercial P&C Insurance (1)	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance (1)	Global Reinsurance	Life Insurance	Corporate	Chubb Consolidated	
(in millions of U.S. dollars)									
Net premiums written	\$ 3,203	\$ 1,255	\$ 403	\$ 2,007	\$ 190	\$ 523	\$ —	\$ 7,581	
Net premiums earned	3,099	1,093	344	2,018	168	515	—	7,237	
Losses and loss expenses	1,936	683	290	964	46	182	45	4,146	
Policy benefits	—	—	—	—	—	163	—	163	
Policy acquisition costs	464	230	27	555	43	130	—	1,449	
Administrative expenses	241	66	2	243	12	77	65	706	
Underwriting income (loss)	458	114	25	256	67	(37)	(110)	773	
Net investment income (loss)	490	56	6	148	65	77	(72)	770	
Other (income) expense	(4)	1	1	(3)	1	(12)	(129)	(145)	
Amortization expense of purchased intangibles	—	5	7	11	—	—	42	65	
Segment income (loss)	\$ 952	\$ 164	\$ 23	\$ 396	\$ 131	\$ 52	\$ (95)	\$ 1,623	
Net realized gains (losses) including OTTI							101	101	
Interest expense							147	147	
Chubb integration expenses							72	72	
Income tax expense							200	200	
Net income (loss)							\$ (413)	\$ 1,305	

(1) The 2017 net premiums written amount was revised to reflect the transfer of certain multinational accounts ( \$1 million ) from the North America Commercial P&C Insurance segment to the Overseas General Insurance segment to better align the reporting with the management of these businesses in 2018. There is no impact on a consolidated basis.

For the Six Months Ended									
June 30, 2018	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Life Insurance	Corporate	Chubb Consolidated	
(in millions of U.S. dollars)									
Net premiums written	\$ 6,143	\$ 2,383	\$ 496	\$ 4,583	\$ 390	\$ 1,124	\$ —	\$ 15,119	
Net premiums earned	6,306	2,296	394	4,268	335	1,092	—	14,691	
Losses and loss expenses	3,992	1,614	236	2,149	150	389	59	8,589	
Policy benefits	—	—	—	—	—	301	—	301	
Policy acquisition costs	920	465	25	1,172	80	266	—	2,928	
Administrative expenses	484	133	(2)	505	19	158	142	1,439	
<b>Underwriting income (loss)</b>	<b>910</b>	<b>84</b>	<b>135</b>	<b>442</b>	<b>86</b>	<b>(22)</b>	<b>(201)</b>	<b>1,434</b>	
Net investment income (loss)	1,013	118	13	306	129	168	(113)	1,634	
Other (income) expense	(19)	1	1	(5)	(13)	4	(131)	(162)	
Amortization expense of purchased intangibles	—	6	14	21	—	1	128	170	
Segment income (loss)	\$ 1,942	\$ 195	\$ 133	\$ 732	\$ 228	\$ 141	\$ (311)	\$ 3,060	
Net realized gains (losses) including OTTI							16	16	
Interest expense							324	324	
Chubb integration expenses							23	23	
Income tax expense							353	353	
Net income (loss)							\$ (995)	\$ 2,376	

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For the Six Months Ended	North America Commercial P&C Insurance (1)	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance (1)	Global Reinsurance	Life Insurance	Corporate	Chubb Consolidated
June 30, 2017 (in millions of U.S. dollars)								
Net premiums written	\$ 5,933	\$ 2,239	\$ 464	\$ 4,219	\$ 389	\$ 1,047	\$ —	\$ 14,291
Net premiums earned	6,140	2,179	358	3,954	357	1,021	—	14,009
Losses and loss expenses	3,796	1,316	217	2,035	140	375	56	7,935
Policy benefits	—	—	—	—	—	331	—	331
Policy acquisition costs	951	447	26	1,084	94	244	—	2,846
Administrative expenses	472	131	(3)	488	22	149	123	1,382
Underwriting income (loss)	921	285	118	347	101	(78)	(179)	1,515
Net investment income (loss)	968	111	12	296	127	152	(151)	1,515
Other (income) expense	—	2	1	(4)	1	(41)	(174)	(215)
Amortization expense of purchased intangibles	—	8	14	22	—	1	84	129
Segment income (loss)	\$ 1,889	\$ 386	\$ 115	\$ 625	\$ 227	\$ 114	\$ (240)	\$ 3,116
Net realized gains (losses) including OTTI							94	94
Interest expense							301	301
Chubb integration expenses							183	183
Income tax expense							328	328
Net income (loss)							\$ (958)	\$ 2,398

(1) The 2017 net premiums written amount was revised to reflect the transfer of certain multinational accounts ( \$13 million ) from the North America Commercial P&C Insurance segment to the Overseas General Insurance segment to better align the reporting with the management of these businesses in 2018. There is no impact on a consolidated basis.

Underwriting assets are reviewed in total by management for purposes of decision-making. Other than Unpaid losses and loss expenses, Reinsurance recoverables, Goodwill and Other intangible assets, Chubb does not allocate assets to its segments.

**11 . Earnings per share**

(in millions of U.S. dollars, except share and per share data)	Three Months Ended		Six Months Ended	
	2018	2017	2018	2017
Numerator:				
Net income	\$ 1,294	\$ 1,305	\$ 2,376	\$ 2,398
Denominator:				
Denominator for basic earnings per share:				
Weighted-average shares outstanding	465,276,597	467,981,077	465,488,724	468,244,458
Denominator for diluted earnings per share:				
Share-based compensation plans	3,103,727	3,872,860	3,489,013	3,900,678
Weighted-average shares outstanding and assumed conversions	468,380,324	471,853,937	468,977,737	472,145,136
Basic earnings per share	\$ 2.78	\$ 2.79	\$ 5.10	\$ 5.12
Diluted earnings per share	\$ 2.76	\$ 2.77	\$ 5.07	\$ 5.08
Potential anti-dilutive share conversions	3,814,491	2,066,578	3,305,735	1,467,556

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

Excluded from weighted-average shares outstanding and assumed conversions is the impact of securities that would have been anti-dilutive during the respective periods.

**12 . Information provided in connection with outstanding debt of subsidiaries**

The following tables present condensed consolidating financial information at June 30, 2018 and December 31, 2017 , and for the three and six months ended June 30, 2018 and 2017 for Chubb Limited (Parent Guarantor) and Chubb INA Holdings Inc. (Subsidiary Issuer). The Subsidiary Issuer is an indirect 100 percent-owned subsidiary of the Parent Guarantor. The Parent Guarantor fully and unconditionally guarantees certain of the debt of the Subsidiary Issuer. Condensed consolidating financial information of the Parent Guarantor and Subsidiary Issuer are presented on the equity method of accounting. The revenues and expenses and cash flows of the subsidiaries of the Subsidiary Issuer are presented in the Other Chubb Limited Subsidiaries column on a combined basis.

**Condensed Consolidating Balance Sheet at June 30, 2018**

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
<b>Assets</b>					
Investments	\$ —	\$ 172	\$ 101,014	\$ —	\$ 101,186
Cash <sup>(1)</sup>	1	1	2,238	(1,240)	1,000
Restricted cash	—	—	101	—	101
Insurance and reinsurance balances receivable	—	—	11,297	(956)	10,341
Reinsurance recoverable on losses and loss expenses	—	—	27,117	(12,325)	14,792
Reinsurance recoverable on policy benefits	—	—	1,127	(923)	204
Value of business acquired	—	—	311	—	311
Goodwill and other intangible assets	—	—	21,759	—	21,759
Investments in subsidiaries	42,919	51,706	—	(94,625)	—
Due from subsidiaries and affiliates, net	8,686	—	257	(8,943)	—
Other assets	2	655	18,760	(1,577)	17,840
<b>Total assets</b>	<b>\$ 51,608</b>	<b>\$ 52,534</b>	<b>\$ 183,981</b>	<b>\$ (120,589)</b>	<b>\$ 167,534</b>
<b>Liabilities</b>					
Unpaid losses and loss expenses	\$ —	\$ —	\$ 73,427	\$ (10,649)	\$ 62,778
Unearned premiums	—	—	16,815	(1,067)	15,748
Future policy benefits	—	—	6,393	(923)	5,470
Due to subsidiaries and affiliates, net	—	8,943	—	(8,943)	—
Affiliated notional cash pooling programs <sup>(1)</sup>	403	837	—	(1,240)	—
Repurchase agreements	—	—	1,413	—	1,413
Short-term debt	—	600	—	—	600
Long-term debt	—	12,173	11	—	12,184
Trust preferred securities	—	308	—	—	308
Other liabilities	234	2,248	18,722	(3,142)	18,062
<b>Total liabilities</b>	<b>637</b>	<b>25,109</b>	<b>116,781</b>	<b>(25,964)</b>	<b>116,563</b>
<b>Total shareholders' equity</b>	<b>50,971</b>	<b>27,425</b>	<b>67,200</b>	<b>(94,625)</b>	<b>50,971</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 51,608</b>	<b>\$ 52,534</b>	<b>\$ 183,981</b>	<b>\$ (120,589)</b>	<b>\$ 167,534</b>

<sup>(1)</sup> Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Various Chubb entities participate in one or the other of the Pools, pursuant to which credit and debit balances in individual Chubb accounts are translated daily into a single currency and pooled on a notional basis. Individual Chubb entities are permitted to overdraw on their individual accounts provided the overall Pool balances do not fall below zero. At June 30, 2018 , the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**Condensed Consolidating Balance Sheet at December 31, 2017**

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
<b>Assets</b>					
Investments	\$ —	\$ 168	\$ 102,276	\$ —	\$ 102,444
Cash <sup>(1)</sup>	3	1	839	(115)	728
Restricted cash	—	—	123	—	123
Insurance and reinsurance balances receivable	—	—	10,820	(1,486)	9,334
Reinsurance recoverable on losses and loss expenses	—	—	27,514	(12,480)	15,034
Reinsurance recoverable on policy benefits	—	—	1,194	(1,010)	184
Value of business acquired	—	—	326	—	326
Goodwill and other intangible assets	—	—	22,054	—	22,054
Investments in subsidiaries	41,909	51,165	—	(93,074)	—
Due from subsidiaries and affiliates, net	9,639	—	—	(9,639)	—
Other assets	3	287	20,578	(4,073)	16,795
<b>Total assets</b>	<b>\$ 51,554</b>	<b>\$ 51,621</b>	<b>\$ 185,724</b>	<b>\$ (121,877)</b>	<b>\$ 167,022</b>
<b>Liabilities</b>					
Unpaid losses and loss expenses	\$ —	\$ —	\$ 74,767	\$ (11,588)	\$ 63,179
Unearned premiums	—	—	18,875	(3,659)	15,216
Future policy benefits	—	—	6,331	(1,010)	5,321
Due to subsidiaries and affiliates, net	—	9,432	207	(9,639)	—
Affiliated notional cash pooling programs <sup>(1)</sup>	—	115	—	(115)	—
Repurchase agreements	—	—	1,408	—	1,408
Short-term debt	—	1,013	—	—	1,013
Long-term debt	—	11,546	10	—	11,556
Trust preferred securities	—	308	—	—	308
Other liabilities	382	1,411	18,848	(2,792)	17,849
<b>Total liabilities</b>	<b>382</b>	<b>23,825</b>	<b>120,446</b>	<b>(28,803)</b>	<b>115,850</b>
<b>Total shareholders' equity</b>	<b>51,172</b>	<b>27,796</b>	<b>65,278</b>	<b>(93,074)</b>	<b>51,172</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 51,554</b>	<b>\$ 51,621</b>	<b>\$ 185,724</b>	<b>\$ (121,877)</b>	<b>\$ 167,022</b>

<sup>(1)</sup> Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Various Chubb entities participate in one or the other of the Pools, pursuant to which credit and debit balances in individual Chubb accounts are translated daily into a single currency and pooled on a notional basis. Individual Chubb entities are permitted to overdraw on their individual accounts provided the overall Pool balances do not fall below zero. At December 31, 2017, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**Condensed Consolidating Statements of Operations and Comprehensive Income**

For the Three Months Ended June 30, 2018

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	\$ —	\$ —	\$ 8,015	\$ —	\$ 8,015
Net premiums earned	—	—	7,664	—	7,664
Net investment income	1	5	822	—	828
Equity in earnings of subsidiaries	1,241	454	—	(1,695)	—
Net realized gains (losses) including OTTI	2	73	(57)	—	18
Losses and loss expenses	—	—	4,487	—	4,487
Policy benefits	—	—	150	—	150
Policy acquisition costs and administrative expenses	23	19	2,169	—	2,211
Interest (income) expense	(76)	204	39	—	167
Other (income) expense	(4)	8	(119)	—	(115)
Amortization of purchased intangibles	—	—	85	—	85
Chubb integration expenses	2	—	11	—	13
Income tax expense (benefit)	5	(36)	249	—	218
Net income	\$ 1,294	\$ 337	\$ 1,358	\$ (1,695)	\$ 1,294
Comprehensive income (loss)	\$ 277	\$ (462)	\$ 352	\$ 110	\$ 277

**Condensed Consolidating Statements of Operations and Comprehensive Income**

For the Three Months Ended June 30, 2017

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	\$ —	\$ —	\$ 7,581	\$ —	\$ 7,581
Net premiums earned	—	—	7,237	—	7,237
Net investment income	2	4	764	—	770
Equity in earnings of subsidiaries	1,253	665	—	(1,918)	—
Net realized gains (losses) including OTTI	(2)	(1)	104	—	101
Losses and loss expenses	—	—	4,146	—	4,146
Policy benefits	—	—	163	—	163
Policy acquisition costs and administrative expenses	18	(2)	2,139	—	2,155
Interest (income) expense	(84)	212	19	—	147
Other (income) expense	4	10	(159)	—	(145)
Amortization of purchased intangibles	—	—	65	—	65
Chubb integration expenses	6	4	62	—	72
Income tax expense (benefit)	4	(87)	283	—	200
Net income	\$ 1,305	\$ 531	\$ 1,387	\$ (1,918)	\$ 1,305
Comprehensive income	\$ 1,675	\$ 920	\$ 1,756	\$ (2,676)	\$ 1,675

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**Condensed Consolidating Statements of Operations and Comprehensive Income**

For the Six Months Ended June 30, 2018

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	\$ —	\$ —	\$ 15,119	\$ —	\$ 15,119
Net premiums earned	—	—	14,691	—	14,691
Net investment income	3	9	1,622	—	1,634
Equity in earnings of subsidiaries	2,263	1,339	—	(3,602)	—
Net realized gains (losses) including OTTI	—	49	(33)	—	16
Losses and loss expenses	—	—	8,589	—	8,589
Policy benefits	—	—	301	—	301
Policy acquisition costs and administrative expenses	41	41	4,285	—	4,367
Interest (income) expense	(156)	413	67	—	324
Other (income) expense	(9)	16	(169)	—	(162)
Amortization of purchased intangibles	—	—	170	—	170
Chubb integration expenses	4	1	18	—	23
Income tax expense (benefit)	10	(95)	438	—	353
Net income	\$ 2,376	\$ 1,021	\$ 2,581	\$ (3,602)	\$ 2,376
Comprehensive income (loss)	\$ 730	\$ (246)	\$ 966	\$ (720)	\$ 730

**Condensed Consolidating Statements of Operations and Comprehensive Income**

For the Six Months Ended June 30, 2017

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	\$ —	\$ —	\$ 14,291	\$ —	\$ 14,291
Net premiums earned	—	—	14,009	—	14,009
Net investment income	2	7	1,506	—	1,515
Equity in earnings of subsidiaries	2,280	1,366	—	(3,646)	—
Net realized gains (losses) including OTTI	(2)	(14)	110	—	94
Losses and loss expenses	—	—	7,935	—	7,935
Policy benefits	—	—	331	—	331
Policy acquisition costs and administrative expenses	36	12	4,180	—	4,228
Interest (income) expense	(168)	433	36	—	301
Other (income) expense	(2)	25	(238)	—	(215)
Amortization of purchased intangibles	—	—	129	—	129
Chubb integration expenses	6	53	124	—	183
Income tax expense (benefit)	10	(199)	517	—	328
Net income	\$ 2,398	\$ 1,035	\$ 2,611	\$ (3,646)	\$ 2,398
Comprehensive income	\$ 3,082	\$ 1,711	\$ 3,294	\$ (5,005)	\$ 3,082

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**Condensed Consolidating Statement of Cash Flows**

For the Six Months Ended June 30, 2018

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
<b>Net cash flows from operating activities</b>	<b>\$ 43</b>	<b>\$ 3,042</b>	<b>\$ 2,187</b>	<b>\$ (3,075)</b>	<b>\$ 2,197</b>
<b>Cash flows from investing activities</b>					
Purchases of fixed maturities available for sale	—	(22)	(12,275)	—	(12,297)
Purchases of fixed maturities held to maturity	—	—	(337)	—	(337)
Purchases of equity securities	—	—	(85)	—	(85)
Sales of fixed maturities available for sale	—	—	6,858	—	6,858
Sales of equity securities	—	—	83	—	83
Maturities and redemptions of fixed maturities available for sale	—	14	3,906	—	3,920
Maturities and redemptions of fixed maturities held to maturity	—	—	732	—	732
Net change in short-term investments	—	6	395	—	401
Net derivative instruments settlements	—	(8)	13	—	5
Private equity contributions	—	—	(813)	—	(813)
Private equity distributions	—	—	413	—	413
Capital contribution	(750)	(3,500)	—	4,250	—
Other	—	(7)	(133)	—	(140)
Net cash flows used for investing activities	(750)	(3,517)	(1,243)	4,250	(1,260)
<b>Cash flows from financing activities</b>					
Dividends paid on Common Shares	(661)	—	—	—	(661)
Common Shares repurchased	—	—	(347)	—	(347)
Proceeds from issuance of long-term debt	—	2,171	—	—	2,171
Repayment of long-term debt	—	(1,900)	—	—	(1,900)
Proceeds from issuance of repurchase agreements	—	—	1,014	—	1,014
Repayment of repurchase agreements	—	—	(1,009)	—	(1,009)
Proceeds from share-based compensation plans	—	—	60	—	60
Dividend to parent company	—	—	(3,075)	3,075	—
Advances (to) from affiliates	963	(518)	(445)	—	—
Capital contribution	—	—	4,250	(4,250)	—
Net proceeds from (payments to) affiliated notional cash pooling programs <sup>(1)</sup>	403	722	—	(1,125)	—
Policyholder contract deposits	—	—	192	—	192
Policyholder contract withdrawals	—	—	(169)	—	(169)
Net cash flows from (used for) financing activities	705	475	471	(2,300)	(649)
<b>Effect of foreign currency rate changes on cash and restricted cash</b>					
Net increase (decrease) in cash and restricted cash	(2)	—	1,377	(1,125)	250
Cash and restricted cash – beginning of period <sup>(1)</sup>	3	1	962	(115)	851
Cash and restricted cash – end of period <sup>(1)</sup>	<b>\$ 1</b>	<b>\$ 1</b>	<b>\$ 2,339</b>	<b>\$ (1,240)</b>	<b>\$ 1,101</b>

<sup>(1)</sup> Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Various Chubb entities participate in one or the other of the Pools, pursuant to which credit and debit balances in individual Chubb accounts are translated daily into a single currency and pooled on a notional basis. Individual Chubb entities are permitted to overdraw on their individual accounts provided the overall Pool balances do not fall below zero. At June 30, 2018 and December 31, 2017, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)**

Chubb Limited and Subsidiaries

**Condensed Consolidating Statement of Cash Flows**

For the Six Months Ended June 30, 2017

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
<b>Net cash flows from (used for) operating activities</b>	\$ 551	\$ 1,444	\$ 1,686	\$ (2,041)	\$ 1,640
<b>Cash flows from investing activities</b>					
Purchases of fixed maturities available for sale	—	(5)	(12,255)	—	(12,260)
Purchases of fixed maturities held to maturity	—	—	(212)	—	(212)
Purchases of equity securities	—	—	(82)	—	(82)
Sales of fixed maturities available for sale	—	—	6,873	—	6,873
Sales of equity securities	—	—	104	—	104
Maturities and redemptions of fixed maturities available for sale	—	13	5,156	—	5,169
Maturities and redemptions of fixed maturities held to maturity	—	—	408	—	408
Net change in short-term investments	—	166	188	—	354
Net derivative instruments settlements	—	(7)	(122)	—	(129)
Private equity contributions	—	—	(345)	—	(345)
Private equity distributions	—	—	487	—	487
Other	—	2	(246)	—	(244)
<b>Net cash flows from (used for) investing activities</b>	—	169	(46)	—	123
<b>Cash flows from financing activities</b>					
Dividends paid on Common Shares	(646)	—	—	—	(646)
Common Shares repurchased	—	—	(475)	—	(475)
Repayment of long-term debt	—	(500)	—	—	(500)
Proceeds from issuance of repurchase agreements	—	—	1,343	—	1,343
Repayment of repurchase agreements	—	—	(1,338)	—	(1,338)
Proceeds from share-based compensation plans	—	—	89	—	89
Dividend to parent company	—	—	(2,041)	2,041	—
Advances (to) from affiliates	264	(328)	64	—	—
Net proceeds from affiliated notional cash pooling programs <sup>(1)</sup>	(170)	(619)	—	789	—
Policyholder contract deposits	—	—	209	—	209
Policyholder contract withdrawals	—	—	(125)	—	(125)
<b>Net cash flows used for financing activities</b>	(552)	(1,447)	(2,274)	2,830	(1,443)
<b>Effect of foreign currency rate changes on cash and restricted cash</b>	—	—	11	—	11
Net increase (decrease) in cash and restricted cash	(1)	166	(623)	789	331
Cash and restricted cash – beginning of period <sup>(1)</sup>	1	1	2,068	(982)	1,088
Cash and restricted cash – end of period <sup>(1)</sup>	\$ —	\$ 167	\$ 1,445	\$ (193)	\$ 1,419

<sup>(1)</sup> Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Various Chubb entities participate in one or the other of the Pools, pursuant to which credit and debit balances in individual Chubb accounts are translated daily into a single currency and pooled on a notional basis. Individual Chubb entities are permitted to overdraw on their individual accounts provided the overall Pool balances do not fall below zero. At June 30, 2017 and December 31, 2016, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

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

The following is a discussion of our results of operations, financial condition, and liquidity and capital resources as of and for the three and six months ended June 30, 2018 .

All comparisons in this discussion are to the corresponding prior year period unless otherwise indicated. All dollar amounts are rounded. However, percent changes and ratios are calculated using whole dollars. Accordingly, calculations using rounded dollars may differ.

Our results of operations and cash flows for any interim period are not necessarily indicative of our results for the full year. This discussion should be read in conjunction with our consolidated financial statements and related notes and our Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2017 ( 2017 Form 10-K).

### Other Information

We routinely post important information for investors on our website ([investors.chubb.com](http://investors.chubb.com)). We use this website as a means of disclosing material, non-public information and for complying with our disclosure obligations under Securities and Exchange Commission (SEC) Regulation FD (Fair Disclosure). Accordingly, investors should monitor the Investor Information portion of our website, in addition to following our press releases, SEC filings, public conference calls, and webcasts. The information contained on, or that may be accessed through, our website is not incorporated by reference into, and is not a part of, this report.

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## Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 provides a “safe harbor” for forward-looking statements. Any written or oral statements made by us or on our behalf may include forward-looking statements that reflect our current views with respect to future events and financial performance. These forward-looking statements are subject to certain risks, uncertainties, and other factors that could, should potential events occur, cause actual results to differ materially from such statements. These risks, uncertainties, and other factors, which are described in more detail elsewhere herein and in other documents we file with the U.S. Securities and Exchange Commission (SEC), include but are not limited to:

- losses arising out of natural or man-made catastrophes such as hurricanes, typhoons, earthquakes, floods, climate change (including effects on weather patterns; greenhouse gases; sea, land and air temperatures; sea levels; and rain and snow), nuclear accidents, or terrorism which could be affected by:
  - the number of insureds and ceding companies affected;
  - the amount and timing of losses actually incurred and reported by insureds;
  - the impact of these losses on our reinsurers and the amount and timing of reinsurance recoverable actually received;
  - the cost of building materials and labor to reconstruct properties or to perform environmental remediation following a catastrophic event; and
  - complex coverage and regulatory issues such as whether losses occurred from storm surge or flooding and related lawsuits;
- actions that rating agencies may take from time to time, such as financial strength or credit ratings downgrades or placing these ratings on credit watch negative or the equivalent;
- the ability to collect reinsurance recoverable, credit developments of reinsurers, and any delays with respect thereto and changes in the cost, quality, or availability of reinsurance;
- actual loss experience from insured or reinsured events and the timing of claim payments;
- the uncertainties of the loss-reserving and claims-settlement processes, including the difficulties associated with assessing environmental damage and asbestos-related latent injuries, the impact of aggregate-policy-coverage limits, the impact of bankruptcy protection sought by various asbestos producers and other related businesses, and the timing of loss payments;
- changes to our assessment as to whether it is more likely than not that we will be required to sell, or have the intent to sell, available for sale fixed maturity investments before their anticipated recovery;
- infection rates and severity of pandemics and their effects on our business operations and claims activity;
- developments in global financial markets, including changes in interest rates, stock markets, and other financial markets, increased government involvement or intervention in the financial services industry, the cost and availability of financing, and foreign currency exchange rate fluctuations (which we refer to in this report as foreign exchange and foreign currency exchange), which could affect our statement of operations, investment portfolio, financial condition, and financing plans;
- general economic and business conditions resulting from volatility in the stock and credit markets and the depth and duration of potential recession;
- global political conditions, the occurrence of any terrorist attacks, including any nuclear, radiological, biological, or chemical events, or the outbreak and effects of war, and possible business disruption or economic contraction that may result from such events;
- the potential impact of the United Kingdom’s vote to withdraw from the European Union, including political, regulatory, social, and economic uncertainty and market and exchange rate volatility;
- judicial decisions and rulings, new theories of liability, legal tactics, and settlement terms;
- the effects of public company bankruptcies and/or accounting restatements, as well as disclosures by and investigations of public companies relating to possible accounting irregularities, and other corporate governance issues, including the effects of such events on:
  - the capital markets;
  - the markets for directors and officers (D&O) and errors and omissions (E&O) insurance; and
  - claims and litigation arising out of such disclosures or practices by other companies;

- uncertainties relating to governmental, legislative and regulatory policies, developments, actions, investigations, and treaties, which, among other things, could subject us to insurance regulation or taxation in additional jurisdictions or affect our current operations;
- the actual amount of new and renewal business, market acceptance of our products, and risks associated with the introduction of new products and services and entering new markets, including regulatory constraints on exit strategies;
- the competitive environment in which we operate, including trends in pricing or in policy terms and conditions, which may differ from our projections and changes in market conditions that could render our business strategies ineffective or obsolete;
- acquisitions made by us performing differently than expected, our failure to realize anticipated expense-related efficiencies or growth from acquisitions, the impact of acquisitions on our pre-existing organization, or announced acquisitions not closing;
- risks associated with being a Swiss corporation, including reduced flexibility with respect to certain aspects of capital management and the potential for additional regulatory burdens;
- the potential impact from government-mandated insurance coverage for acts of terrorism;
- the availability of borrowings and letters of credit under our credit facilities;
- the adequacy of collateral supporting funded high deductible programs;
- changes in the distribution or placement of risks due to increased consolidation of insurance and reinsurance brokers;
- material differences between actual and expected assessments for guaranty funds and mandatory pooling arrangements;
- the effects of investigations into market practices in the property and casualty (P&C) industry;
- changing rates of inflation and other economic conditions, for example, recession;
- the amount of dividends received from subsidiaries;
- loss of the services of any of our executive officers without suitable replacements being recruited in a reasonable time frame;
- the ability of our technology resources, including information systems and security, to perform as anticipated such as with respect to preventing material information technology failures or third-party infiltrations or hacking resulting in consequences adverse to Chubb or its customers or partners;
- the ability of our company to increase use of data analytics and technology as part of our business strategy and adapt to new technologies; and
- management's response to these factors and actual events (including, but not limited to, those described above).

*The words "believe," "anticipate," "estimate," "project," "should," "plan," "expect," "intend," "hope," "feel," "foresee," "will likely result," or "will continue," and variations thereof and similar expressions, identify forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates. We undertake no obligation to publicly update or review any forward-looking statements, whether as a result of new information, future events, or otherwise.*

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## Overview

Chubb Limited is the Swiss-incorporated holding company of the Chubb Group of Companies. Chubb Limited, which is headquartered in Zurich, Switzerland, and its direct and indirect subsidiaries (collectively, the Chubb Group of Companies, Chubb, we, us, or our) are a global insurance and reinsurance organization, serving the needs of a diverse group of clients worldwide. At June 30, 2018, we had total assets of \$168 billion and shareholders' equity of \$51 billion. Chubb was incorporated in 1985 at which time it opened its first business office in Bermuda and continues to maintain operations in Bermuda. We operate through six business segments: North America Commercial P&C Insurance, North America Personal P&C Insurance, North America Agricultural Insurance, Overseas General Insurance, Global Reinsurance, and Life Insurance. For more information on our segments refer to "Segment Information" under Item 1 in our 2017 Form 10-K.

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## Financial Highlights for the Three Months Ended June 30, 2018

- Net income was \$1,294 million compared with \$1,305 million in the prior year period.
- Total company and P&C net premiums written were \$8.0 billion and \$7.5 billion, respectively, up 5.7 percent and 5.6 percent.
- P&C combined ratio was 88.4 percent compared with 88.0 percent prior year. The year-over-year increase in large structured transactions adversely impacted the P&C combined ratio in the current year by 0.3 percentage points, comprising a 1.0 percentage point increase in the loss ratio and a 0.7 percentage points decrease in the expense ratio.
- Total pre-tax and after-tax catastrophe losses were \$211 million (3.0 percentage points of the combined ratio) and \$173 million, respectively, compared with \$200 million (3.0 percentage points of the combined ratio) and \$152 million, respectively, last year.
- Total pre-tax and after-tax favorable prior period development were \$191 million (2.7 percentage points of the combined ratio) and \$158 million, respectively, compared with \$170 million (2.5 percentage points of the combined ratio) and \$144 million, respectively, last year.
- Net investment income was \$828 million compared with \$770 million in the prior year period. Excluding the amortization of the fair value adjustment on acquired invested assets of The Chubb Corporation (Chubb Corp), net investment income was \$890 million, compared with \$855 million, up 4.0 percent.
- Share repurchases totaled \$324 million, or approximately 2.4 million shares, during the quarter.

**Consolidated Operating Results – Three and Six Months Ended June 30, 2018 and 2017**

(in millions of U.S. dollars, except for percentages)	Three Months Ended			Six Months Ended		
	June 30		% Change	June 30		% Change
	2018	2017	Q-18 vs. Q-17	2018	2017	YTD-18 vs. YTD-17
Net premiums written <sup>(1)</sup>	\$ 8,015	\$ 7,581	5.7 %	\$ 15,119	\$ 14,291	5.8 %
Net premiums earned <sup>(1)</sup>	7,664	7,237	5.9 %	14,691	14,009	4.9 %
Net investment income	828	770	7.4 %	1,634	1,515	7.8 %
Net realized gains (losses)	18	101	(82.2)%	16	94	(83.0)%
Total revenues	8,510	8,108	5.0 %	16,341	15,618	4.6 %
Losses and loss expenses	4,487	4,146	8.2 %	8,589	7,935	8.2 %
Policy benefits	150	163	(8.0)%	301	331	(9.1)%
Policy acquisition costs	1,464	1,449	1.0 %	2,928	2,846	2.9 %
Administrative expenses	747	706	5.8 %	1,439	1,382	4.1 %
Interest expense	167	147	13.6 %	324	301	7.6 %
Other (income) expense	(115)	(145)	(20.7)%	(162)	(215)	(24.7)%
Amortization of purchased intangibles	85	65	30.8 %	170	129	31.8 %
Chubb integration expenses	13	72	(81.9)%	23	183	(87.4)%
Total expenses	6,998	6,603	6.0 %	13,612	12,892	5.6 %
Income before income tax	1,512	1,505	0.5 %	2,729	2,726	0.1 %
Income tax expense	218	200	9.0 %	353	328	7.6 %
Net income	\$ 1,294	\$ 1,305	(0.8)%	\$ 2,376	\$ 2,398	(0.9)%

(1) On a constant-dollar basis for the three and six months ended June 30, 2018, net premiums written increased \$327 million, or 4.3 percent, and \$566 million, or 3.9 percent, respectively, and net premiums earned increased \$306 million, or 4.2 percent and increased \$435 million, or 3.1 percent, respectively. Amounts are calculated by translating prior period results using the same local currency exchange rates as the comparable current period.

**Net Premiums Written**

Net premiums written reflect the premiums we retain after purchasing reinsurance protection. Consolidated net premiums written increased \$434 million and \$828 million, or \$327 million and \$566 million on a constant-dollar basis, for the three and six months ended June 30, 2018, respectively, reflecting growth across most segments.

- Net premiums written in our North America Commercial P&C Insurance segment increased \$128 million and \$210 million for the three and six months ended June 30, 2018, respectively, reflecting positive rate increases across a number of lines in both our Major account and middle market businesses, growth in our retail casualty businesses from strong new business increases in both our large corporate and middle market accounts, and the year-over-year increase in large structured transactions (\$135 million and \$155 million, respectively). For the six months ended June 30, 2018 the increase was also due to growth in our retail workers' compensation business due to stronger retention. These increases were partially offset by planned portfolio management in certain of our retail and wholesale brokerage financial lines.
- Net premiums written in our North America Personal P&C Insurance segment increased \$80 million and \$144 million for the three and six months ended June 30, 2018, respectively, primarily due to strong retention and new business growth in homeowners and complementary products such as automobiles and valuables. In addition, for the six months ended June 30, 2018, the non-renewal of a quota share treaty in the second quarter of 2017 covering the acquired Fireman's Fund homeowners and automobile businesses (\$38 million) added to growth.
- Net premiums written in our North America Agricultural Insurance segment decreased \$15 million for the three months ended June 30, 2018 primarily due to lower volatility factors, which are a component of the 2018 policy pricing that measures the likelihood the commodity price will fluctuate over the crop year, partially offset by policy count growth in our Crop business and growth in our Chubb Agribusiness unit driven by strong retention. Net premiums written increased \$32 million for the six months ended June 30, 2018, primarily due to an increase in MPCl premium which was driven in part by higher new business and the year-over-year impact of the premium sharing formulas under the U.S. government. Under the MPCl profit and loss calculation, we cede additional premiums to the government during profitable years. In the prior year, the program was more profitable which resulted in higher cessions compared to 2018.

- Net premiums written in our Overseas General Insurance segment increased \$192 million and \$364 million , or \$107 million and \$140 million on a constant-dollar basis, for the three and six months ended June 30, 2018 , respectively, reflecting growth across most regions and lines of business. Personal lines growth was principally in our automobile line in Mexico driven by new business, as well as in our specialty lines in Asia. P&C lines growth was across all regions, principally in small commercial property and general casualty lines reflecting new business, and in middle market driven by new business and rate increases. This growth was offset by declines in large account business. Accident and health (A&H) lines growth was principally in Asia driven by new business.
- Net premiums written in our Global Reinsurance segment increased \$7 million and \$1 million , or increased \$3 million and decreased \$7 million on a constant-dollar basis for the three and six months ended June 30, 2018 , respectively, primarily due to new business written in casualty and property lines, partially offset by lower renewals, reflecting competitive market conditions. In addition, the prior year included a \$7 million favorable non-recurring reinstatement premium adjustment related to prior period loss development.
- Net premiums written in our Life Insurance segment increased \$42 million and \$77 million , or \$35 million and \$61 million on a constant-dollar basis, for the three and six months ended June 30, 2018, respectively, primarily due to growth in our Asian international life operations and North American Combined Insurance supplemental A&H program business. This increase was partially offset by our life reinsurance business, which continues to decline as no new life reinsurance business is currently being written.

**Line of Business**

The following table presents a breakdown of consolidated net premiums written by line of business for the period indicated:

(in millions of U.S. dollars, except for percentages)	Three Months Ended					Six Months Ended				
	June 30					June 30				
	2018	2017	% Change Q-18 vs. Q-17	C\$ <sup>(1)</sup> 2017	C\$ <sup>(1)</sup> % Change Q-18 vs. Q-17	2018	2017	% Change YTD-18 vs. YTD-17	C\$ <sup>(1)</sup> 2017	C\$ <sup>(1)</sup> % Change YTD-18 vs. YTD-17
Commercial casualty	\$ 1,446	\$ 1,221	18.4 %	\$ 1,238	16.8 %	\$ 2,591	\$ 2,270	14.1 %	\$ 2,309	12.2 %
Workers' compensation	450	478	(5.9)%	479	(6.1)%	1,074	1,066	0.8 %	1,067	0.7 %
Professional liability	889	900	(1.2)%	918	(3.2)%	1,662	1,663	(0.1)%	1,725	(3.7)%
Surety	161	153	5.2 %	154	4.5 %	322	303	6.3 %	307	4.9 %
Commercial multiple peril <sup>(2)</sup>	243	227	7.0 %	227	7.0 %	444	428	3.7 %	428	3.7 %
Property and other short-tail lines	1,032	1,055	(2.2)%	1,070	(3.6)%	2,072	2,099	(1.3)%	2,123	(2.4)%
<b>Total Commercial P&amp;C</b>	<b>4,221</b>	<b>4,034</b>	<b>4.6 %</b>	<b>4,086</b>	<b>3.3 %</b>	<b>8,165</b>	<b>7,829</b>	<b>4.3 %</b>	<b>7,959</b>	<b>2.6 %</b>
Agriculture	388	403	(3.7)%	403	(3.7)%	496	464	6.8 %	464	6.8 %
Personal automobile - North America	229	209	9.6 %	210	9.0 %	413	374	10.4 %	376	9.8 %
Personal automobile - International	227	188	20.7 %	191	18.8 %	441	374	17.9 %	389	13.4 %
Personal homeowners	982	925	6.2 %	929	5.7 %	1,720	1,622	6.0 %	1,628	5.7 %
Personal other	389	363	7.2 %	376	3.5 %	776	725	7.0 %	754	2.9 %
<b>Total Personal lines</b>	<b>1,827</b>	<b>1,685</b>	<b>8.4 %</b>	<b>1,706</b>	<b>7.1 %</b>	<b>3,350</b>	<b>3,095</b>	<b>8.2 %</b>	<b>3,147</b>	<b>6.5 %</b>
<b>Total Property and Casualty lines</b>	<b>6,436</b>	<b>6,122</b>	<b>5.1 %</b>	<b>6,195</b>	<b>3.9 %</b>	<b>12,011</b>	<b>11,388</b>	<b>5.5 %</b>	<b>11,570</b>	<b>3.8 %</b>
Global A&H lines <sup>(3)</sup>	1,116	1,025	8.9 %	1,051	6.2 %	2,188	2,019	8.4 %	2,080	5.2 %
Reinsurance lines	197	190	3.8 %	194	1.5 %	390	389	0.4 %	397	(1.7)%
Life	266	244	9.0 %	248	7.3 %	530	495	7.1 %	506	4.7 %
<b>Total consolidated</b>	<b>\$ 8,015</b>	<b>\$ 7,581</b>	<b>5.7 %</b>	<b>\$ 7,688</b>	<b>4.3 %</b>	<b>\$ 15,119</b>	<b>\$ 14,291</b>	<b>5.8 %</b>	<b>\$ 14,553</b>	<b>3.9 %</b>

(1) On a constant-dollar basis. Amounts are calculated by translating prior period results using the same local currency exchange rates as the comparable current period.

(2) Commercial multiple peril represents retail package business (property and general liability).

(3) For purposes of this schedule only, A&H results from our Combined North America and International businesses, normally included in the Life Insurance and Overseas General Insurance segments, respectively, as well as the A&H results of our North America Commercial P&C segment, are included in Global A&H lines above.

The increase in net premiums written in the three and six months ended June 30, 2018, reflects growth across most lines of business from new business and strong renewals, partially offset by planned merger-related underwriting actions related to the Chubb Corp acquisition of \$46 million and \$96 million, respectively. The increase in commercial casualty business was primarily related to the year-over-year increase in large structured transactions written. Workers' compensation and professional lines were negatively impacted by planned merger-related underwriting actions and other planned portfolio management. Growth in Surety lines was due to new business in North America and Latin America. Property and other short-tail lines grew internationally due to new business and strong renewals, offset by declines in North America. Our personal lines net premiums written increased due to new business in our automobile line in Mexico, new business growth in homeowners and complementary products, and the non-renewal of a quota share treaty in the second quarter of 2017. For additional information on net premiums written, refer to the segment results discussions.

### Net Premiums Earned

Net premiums earned for short-duration contracts, typically P&C contracts, generally reflect the portion of net premiums written that were recorded as revenues for the period as the exposure periods expire. Net premiums earned for long-duration contracts, typically traditional life contracts, generally are recognized as earned when due from policyholders. Net premiums earned increased \$427 million and \$682 million, or \$306 million and \$435 million on a constant-dollar basis, for the three and six months ended June 30, 2018, respectively, due to the same factors driving the increase in net premiums written as described above.

### P&C Combined Ratio

In evaluating our segments excluding Life Insurance, we use the P&C combined ratio, the loss and loss expense ratio, the policy acquisition cost ratio, and the administrative expense ratio. We calculate these ratios by dividing the respective expense amounts by net premiums earned. We do not calculate these ratios for the Life Insurance segment as we do not use these measures to monitor or manage that segment. The P&C combined ratio is determined by adding the loss and loss expense ratio, the policy acquisition cost ratio, and the administrative expense ratio. A P&C combined ratio under 100 percent indicates underwriting income, and a combined ratio exceeding 100 percent indicates underwriting loss.

The following table presents the components of the P&C combined ratio:

	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Loss and loss expense ratio	60.4%	59.0%	60.2%	58.2%
Policy acquisition cost ratio	18.6%	19.6%	19.6%	20.0%
Administrative expense ratio	9.4%	9.4%	9.4%	9.6%
P&C combined ratio	88.4%	88.0%	89.2%	87.8%

The loss and loss expense ratio increased 1.4 percentage points and 2.0 percentage points for the three and six months ended June 30, 2018, respectively, due to the following:

- The year-over-year increase in large structured transactions (1.0 percentage point and 0.5 percentage points, respectively);
- Favorable claims handling expense adjustments in the second quarter of 2017, which benefited the prior year loss ratio (0.6 percentage points and 0.3 percentage points, respectively);
- Partially offset by integration-related claims handling expense savings realized (\$17 million, or 0.3 percentage points, and \$34 million, or 0.3 percentage points, respectively). In addition, the loss and loss expense ratio for the six months ended June 30, 2018 was also unfavorably impacted by higher catastrophe losses in the current year.

Policy acquisition costs consist of commissions, premium taxes, and certain underwriting costs directly related to the successful acquisition of new or renewal insurance contracts. Our policy acquisition cost ratio decreased 1.0 percentage point and 0.4 percentage points for the three and six months ended June 30, 2018, respectively, principally due to the favorable impact of large structured transactions written that generated minimal acquisition costs, increased cessions under certain reinsurance agreements that resulted in a higher ceded acquisition costs benefit than in the prior year, and a supplemental commission adjustment in the current year.

Our administrative expense ratio remained flat and decreased 0.2 percentage points for the three and six months ended June 30, 2018, respectively, due to the impact of large structured transactions written in the current year that generated minimal administrative costs and integration-related expense savings realized (\$22 million and \$46 million, respectively), offset by merit-based salary and inflationary increases, and increased spending to support growth.

### Catastrophe Losses and Prior Period Development

We generally define catastrophe loss events consistent with the definition of the Property Claims Service (PCS) for events in the U.S. and Canada. PCS defines a catastrophe as an event that causes damage of \$25 million or more in insured property losses and affects a significant number of insureds. For events outside of the U.S. and Canada, we generally use a similar definition.

Prior period development (PPD) arises from changes to loss estimates recognized in the current year that relate to loss events that occurred in previous calendar years and excludes the effect of losses from the development of earned premium from

previous accident years. Refer to the Prior Period Development section in Note 4 to the Consolidated Financial Statements for additional information.

The following table presents pre-tax catastrophe losses and pre-tax prior period development, net of related reinstatement premiums:

(in millions of U.S dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Catastrophe losses, pre-tax	\$ 211	\$ 200	\$ 591	\$ 406
Favorable prior period development net of related reinstatement premiums, pre-tax	\$ 191	\$ 170	\$ 400	\$ 401

Catastrophe losses through June 30, 2018 and 2017 were primarily from the following events:

- 2018 : Severe weather-related events in the U.S., including California mudslides and Northeast winter storms, and in Asia Pacific and Europe.
- 2017 : Severe weather-related events in the U.S., Cyclone Debbie in Australia and flooding in Latin America.

**Current Accident Year (CAY) Loss Ratio excluding CATs and CAY P&C Combined Ratio excluding CATs**

For these measures, the numerator includes losses and loss expenses adjusted to exclude CATs and PPD. In addition, the denominator includes net premiums earned adjusted to exclude the amount of reinstatement premiums (expensed) collected. Reinstatement premiums are additional fully earned, prorated premiums payable to reinsurers to restore coverage that has been reduced by reinsurance loss payments.

The following table presents the CAY loss and loss expense ratio, excluding CATs and related reinstatement premiums (CAY loss ratio excluding CATs):

	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Loss and loss expense ratio	60.4 %	59.0 %	60.2 %	58.2 %
Catastrophe losses and related reinstatement premiums	(3.0)%	(3.0)%	(4.3)%	(3.1)%
Prior period development net of related reinstatement premiums	2.6 %	2.6 %	3.0 %	3.3 %
CAY loss ratio excluding catastrophe losses	60.0 %	58.6 %	58.9 %	58.4 %

The CAY loss ratio excluding CATs increased 1.4 percentage points and 0.5 percentage points, respectively, for the three and six months ended June 30, 2018 , due to the factors driving the increase in the loss and loss expense ratio described above.

The following table presents the components of the CAY P&C combined ratio excluding CATs:

	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
CAY Loss and loss expense ratio ex CATs	60.0%	58.6%	58.9%	58.4%
CAY Policy acquisition cost ratio ex CATs	18.7%	19.6%	19.5%	19.9%
CAY Administrative expense ratio ex CATs	9.4%	9.3%	9.4%	9.5%
CAY P&C combined ratio ex CATs	88.1%	87.5%	87.8%	87.8%

**P&C Combined Ratio with an Expected Level of CATs and CAY P&C Combined Ratio with an Expected Level of CATs**

These measures include the level of CATs that we view as typical for that period. Refer to the Non-GAAP Reconciliation section for the definition and determination of “expected level of CATs.” We believe that these measures are meaningful and provide a better indication of our underwriting performance as the portion of CATs intended to be covered by the premiums over time is retained in the calculation. These measures more appropriately align the numerator with an expected level of CATs to the denominator which includes the net premiums earned on policies with exposures to that business.

The CAY P&C combined ratio with an expected level of CATs measure is further adjusted to exclude the impact of prior period development. We believe it is useful to exclude PPD as these unexpected loss developments on historical reserves are not indicative of our underlying performance when looking at the current accident year results.

	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
P&C Combined Ratio	88.4 %	88.0 %	89.2 %	87.8 %
Less: CATs above (below) an expected level	(0.2)%	(0.2)%	1.2 %	—
P&C combined ratio with an expected level of CATs	88.6 %	88.2 %	88.0 %	87.8 %
Less: Prior period development net of related reinstatement premiums	(2.7)%	(2.5)%	(3.0)%	(3.1)%
CAY P&C Combined ratio with an expected level of CATs	91.3 %	90.7 %	91.0 %	90.9 %

**Policy benefits**

Policy benefits represent losses on contracts classified as long-duration and generally include accident and supplemental health products, term and whole life products, endowment products, and annuities. Refer to the Life segment operating results section for further discussion.

For the three months ended June 30, 2018, Policy benefits were \$150 million , which is net of \$10 million separate account liabilities gains, compared to \$163 million in the prior year, which included losses of \$16 million related to separate account liabilities.

For the six months ended June 30, 2018, Policy benefits were \$301 million , which is net of \$4 million separate account liabilities gains, compared to \$331 million in the prior year, which included losses of \$46 million related to separate account liabilities.

Refer to the respective sections for a discussion of Net investment income, Interest expense, Other (income) expense, Net realized gains and losses, Amortization of purchased intangibles, and Income tax expense.

**Segment Operating Results – Three and Six Months Ended June 30, 2018 and 2017**

We operate through six business segments: North America Commercial P&C Insurance, North America Personal P&C Insurance, North America Agricultural Insurance, Overseas General Insurance, Global Reinsurance, and Life Insurance. For more information on our segments refer to “Segment Information” under Item 1 in our 2017 Form 10-K.

Corporate results primarily include income and expenses not attributable to reportable segments and loss and loss expenses of asbestos and environmental (A&E) liabilities and certain other run-off exposures.

## North America Commercial P&C Insurance

The North America Commercial P&C Insurance segment comprises operations that provide property and casualty (P&C) insurance and services to large, middle market, and small commercial businesses in the U.S., Canada, and Bermuda. This segment includes our North America Major Accounts and Specialty Insurance division (principally large corporate accounts and wholesale business), and the North America Commercial Insurance division (principally middle market and small commercial accounts).

(in millions of U.S. dollars, except for percentages)	Three Months Ended			Six Months Ended		
	June 30		% Change	June 30		% Change
	2018	2017	Q-18 vs. Q-17	2018	2017	YTD-18 vs. YTD-17
Net premiums written <sup>(1)</sup>	\$ 3,331	\$ 3,203	4.0%	\$ 6,143	\$ 5,933	3.5%
Net premiums earned	3,277	3,099	5.8%	6,306	6,140	2.7%
Losses and loss expenses	2,084	1,936	7.6%	3,992	3,796	5.2%
Policy acquisition costs	448	464	(3.4)%	920	951	(3.3)%
Administrative expenses	253	241	5.0%	484	472	2.5%
Underwriting income	492	458	7.4%	910	921	(1.2)%
Net investment income	510	490	4.1%	1,013	968	4.6%
Other (income) expense	(13)	(4)	225.0%	(19)	—	NM
Segment income	\$ 1,015	\$ 952	6.6%	\$ 1,942	\$ 1,889	2.8%
Loss and loss expense ratio	63.6%	62.5%	1.1 pts	63.3%	61.8%	1.5 pts
Policy acquisition cost ratio	13.7%	15.0%	(1.3) pts	14.6%	15.5%	(0.9) pts
Administrative expense ratio	7.7%	7.7%	— pts	7.7%	7.7%	— pts
Combined ratio	85.0%	85.2%	(0.2) pts	85.6%	85.0%	0.6 pts

NM – not meaningful

(1) The 2017 net premiums written amount was revised to reflect the transfer of certain multinational accounts (\$1 million and \$13 million, for the three and six months ended, respectively) to the Overseas General Insurance segment to better align the reporting with the management of these businesses in 2018. There is no impact on a consolidated basis.

### Premiums

Net premiums written increased \$128 million and \$210 million for the three and six months ended June 30, 2018, respectively, reflecting positive rate increases across a number of lines in both our Major account and middle market businesses, growth in our retail casualty businesses from strong new business increases in both our large corporate and middle market accounts, and the year-over-year increase in large structured transactions (\$135 million and \$155 million, respectively). For the six months ended June 30, 2018 the increase was also due to growth in our retail workers' compensation business due to stronger retention. These increases were partially offset by planned portfolio management in certain of our retail and wholesale brokerage financial lines and in our program business as well as a catch-up in premium registration that increased net premiums written in the prior year.

Net premiums earned increased \$178 million and \$166 million for the three and six months ended June 30, 2018, respectively, due to the factors described above.

### Combined Ratio

The loss and loss expense ratio increased 1.1 percentage points and 1.5 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to the year-over-year increase in large structured transactions (2.0 percentage points and 1.0 percentage points). In addition, the prior year included favorable claims handling expense adjustments which benefited the prior year loss ratio (1.2 percentage points and 0.6 percentage points), partially offset by integration-related claims handling expense savings realized in 2018 (0.4 percentage points for both periods) and lower catastrophe losses.

The policy acquisition cost ratio decreased 1.3 percentage points and 0.9 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to the favorable impact of large structured transactions written that generated minimal acquisition costs, increased cessions under certain reinsurance agreements that resulted in higher ceded acquisition costs benefit than in the prior year, and a mix of business shift towards lower acquisition cost ratio lines.

The administrative expense ratio remained flat for both the three and six months ended June 30, 2018, respectively, as merit-based salary and inflationary increases were offset by integration-related expense savings realized and the impact of the large structured transactions written in the current year that generated minimal administrative costs.

The following table presents pre-tax catastrophe losses and pre-tax prior period development net of related reinstatement premiums:

(in millions of U.S. dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Catastrophe losses, pre-tax	\$ 73	\$ 102	\$ 151	\$ 185
Favorable prior period development net of related reinstatement premiums, pre-tax	\$ 155	\$ 131	\$ 256	\$ 310

Catastrophe losses through June 30, 2018 and 2017 were primarily from severe weather-related events in the U.S.

The following table presents the current accident year loss and loss expense ratio, excluding catastrophe losses and related reinstatement premiums (CAY loss ratio excluding catastrophe losses):

	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Loss and loss expense ratio	63.6 %	62.5 %	63.3 %	61.8 %
Catastrophe losses and related reinstatement premiums	(2.2)%	(3.3)%	(2.4)%	(3.0)%
Prior period development net of related reinstatement premiums	4.6 %	4.2 %	4.1 %	5.1 %
CAY loss ratio excluding catastrophe losses	66.0 %	63.4 %	65.0 %	63.9 %

The CAY loss ratio excluding catastrophe losses increased 2.6 percentage points and 1.1 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to the factors driving the increase in the loss and loss expense ratio described above.

## North America Personal P&C Insurance

The North America Personal P&C Insurance segment comprises operations that provide high net worth personal lines products, including homeowners and complementary products such as valuable articles, excess liability, automobile, and recreational marine insurance and services in the U.S. and Canada.

	Three Months Ended			Six Months Ended		
	June 30		% Change	June 30		% Change
(in millions of U.S. dollars, except for percentages)	2018	2017	Q-18 vs. Q-17	2018	2017	YTD-18 vs. YTD-17
Net premiums written	\$ 1,335	\$ 1,255	6.4%	\$ 2,383	\$ 2,239	6.4%
Net premiums earned	1,156	1,093	5.6%	2,296	2,179	5.3%
Losses and loss expenses	728	683	6.6%	1,614	1,316	22.6%
Policy acquisition costs	228	230	(0.9)%	465	447	4.0%
Administrative expenses	68	66	3.0%	133	131	1.5%
Underwriting income	132	114	15.8%	84	285	(70.5)%
Net investment income	59	56	5.4%	118	111	6.3%
Other (income) expense	1	1	—	1	2	(50.0)%
Amortization of purchased intangibles	3	5	(40.0)%	6	8	(25.0)%
Segment income	\$ 187	\$ 164	14.0%	\$ 195	\$ 386	(49.5)%
Loss and loss expense ratio	63.0%	62.4%	0.6 pts	70.3%	60.4%	9.9 pts
Policy acquisition cost ratio	19.7%	21.1%	(1.4) pts	20.2%	20.5%	(0.3) pts
Administrative expense ratio	5.9%	6.1%	(0.2) pts	5.8%	6.0%	(0.2) pts
Combined ratio	88.6%	89.6%	(1.0) pts	96.3%	86.9%	9.4 pts

### Premiums

Net premiums written increased \$80 million and \$144 million for the three and six months ended June 30, 2018, respectively, primarily due to strong retention and new business growth in homeowners and complementary products such as automobiles and valuables as well as from a current period benefit relating to changes we made to harmonize registration between our legacy registration systems in the quarter (\$53 million) offset by a similar adjustment in the prior year (\$22 million). In addition, for the six months ended June 30, 2018, the non-renewal of a quota share treaty in the second quarter of 2017 covering the acquired Fireman's Fund homeowners and automobile businesses (\$38 million) added to growth.

Net premiums earned increased \$63 million and \$117 million for the three and six months ended June 30, 2018, respectively, primarily due to the factors described above.

### Combined Ratio

The loss and loss expense ratio increased 0.6 percentage points and 9.9 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to higher catastrophe losses. In addition, the increase in the loss ratio reflected increasing frequency and severity of Homeowners losses primarily non-catastrophe weather related events and large fire losses which are trending above our expectations, partially offset by integration-related claims handling expense savings realized.

The policy acquisition cost ratio decreased 1.4 percentage points and 0.3 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to a supplemental commission adjustment in the current year which favorably impacted the policy acquisition cost ratio. In addition, the prior year acquisition cost ratio was adversely impacted by an acquisition cost adjustment related to an unearned premium reserves transfer in 2017. For the six months ended June 30, 2018, the decrease was partially offset by the non-renewal of the Fireman's Fund quota share treaty which had a higher ceding commission.

The administrative expense ratio decreased 0.2 percentage points for both the three and six months ended June 30, 2018, respectively, as the integration-related expense savings realized were partially offset by merit-based salary and inflationary increases.

The following table presents pre-tax catastrophe losses and pre-tax prior period development net of related reinstatement premiums:

(in millions of U.S. dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Catastrophe losses, pre-tax	\$ 101	\$ 77	\$ 385	\$ 145
Favorable (unfavorable) prior period development net of related reinstatement premiums, pre-tax	\$ (7)	\$ (37)	\$ (1)	\$ (34)

Catastrophe losses through June 30, 2018 and 2017 were primarily from the following events:

- 2018 : California mudslides and Northeast winter storms.
- 2017 : Severe weather-related events in the U.S.

The following table presents the current accident year loss and loss expense ratio, excluding catastrophe losses and related reinstatement premiums (CAY loss ratio excluding catastrophe losses):

	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Loss and loss expense ratio	63.0 %	62.4 %	70.3 %	60.4 %
Catastrophe losses and related reinstatement premiums	(8.7)%	(7.0)%	(16.8)%	(6.7)%
Prior period development net of related reinstatement premiums	(0.6)%	(3.3)%	—	(1.5)%
CAY loss ratio excluding catastrophe losses	53.7 %	52.1 %	53.5 %	52.2 %

The CAY loss ratio excluding catastrophe losses increased 1.6 percentage points and 1.3 percentage points for the three and six months ended June 30, 2018 , respectively, due to increasing frequency and severity of Homeowners losses primarily non-catastrophe weather related events and large fire losses which are trending above our expectations.

## North America Agricultural Insurance

The North America Agricultural Insurance segment comprises our North American based businesses that provide a variety of coverages in the U.S. and Canada including crop insurance, primarily Multiple Peril Crop Insurance (MPCI) and crop-hail through Rain and Hail Insurance Service, Inc. (Rain and Hail) as well as farm and ranch and specialty P&C commercial insurance products and services through our Chubb Agribusiness unit.

(in millions of U.S. dollars, except for percentages)	Three Months Ended			Six Months Ended		
	June 30		% Change	June 30		% Change
	2018	2017	Q-18 vs. Q-17	2018	2017	YTD-18 vs. YTD-17
Net premiums written	\$ 388	\$ 403	(3.7)%	\$ 496	\$ 464	6.8%
Net premiums earned	351	344	2.2%	394	358	10.3%
Losses and loss expenses <sup>(1)</sup>	281	292	(3.8)%	226	219	3.2%
Policy acquisition costs	26	27	(3.7)%	25	26	(3.8)%
Administrative expenses	1	2	(50.0)%	(2)	(3)	(33.3)%
Underwriting income	43	23	87.0%	145	116	25.0%
Net investment income	6	6	—	13	12	8.3%
Other (income) expense	1	1	—	1	1	—
Amortization of purchased intangibles	7	7	—	14	14	—
Segment income	\$ 41	\$ 21	95.2%	\$ 143	\$ 113	26.5%
Loss and loss expense ratio	80.0%	85.2%	(5.2) pts	57.4 %	61.3 %	(3.9) pts
Policy acquisition cost ratio	7.4%	7.7%	(0.3) pts	6.3 %	7.2 %	(0.9) pts
Administrative expense ratio	0.5%	0.4%	0.1 pts	(0.4)%	(0.8)%	0.4 pts
Combined ratio	87.9%	93.3%	(5.4) pts	63.3 %	67.7 %	(4.4) pts

<sup>(1)</sup> Gains (losses) on crop derivatives were \$8 million and \$10 million for the three and six months ended June 30, 2018, respectively. Gains (losses) on crop derivatives were \$(2) million for both the three and six months ended June 30, 2017. These gains (losses) are included in Net realized gains (losses) in our Consolidated statements of operations but are reclassified to Losses and loss expenses for purposes of presenting North America Agricultural Insurance underwriting income.

### Premiums

Net premiums written decreased \$15 million for the three months ended June 30, 2018 primarily due to lower volatility factors, which are a component of the 2018 policy pricing that measures the likelihood the commodity price will fluctuate over the crop year, partially offset by policy count growth in our Crop business and growth in our Chubb Agribusiness unit driven by strong retention. Net premiums written increased \$32 million for the six months ended June 30, 2018, primarily due to an increase in MPCI premium which was driven in part by higher new business and the year-over-year impact of the premium sharing formulas under the U.S. government. Under the MPCI profit and loss calculation, we cede additional premiums to the government during profitable years. In the prior year, the program was more profitable which resulted in higher cessions compared to 2018.

Net premiums earned increased \$7 million and \$36 million for the three and six months ended June 30, 2018, respectively, due to higher MPCI production in the first quarter of 2018 and in the prior year.

### Combined Ratio

The loss and loss expense ratio decreased 5.2 percentage points and 3.9 percentage points for the three and six months ended June 30, 2018, respectively, due to the impact of our crop derivatives and improved underlying losses in the current year. In addition, the loss ratio for the six months ended June 30, 2018 decreased due to lower catastrophe losses which was partially offset by lower favorable prior period development. Refer to the current accident year loss and loss expense ratio discussion below for more information.

The policy acquisition cost ratio decreased 0.3 percentage points and 0.9 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to higher MPCI direct commissions related to the 2017 crop year.

The administrative expense ratio remained relatively flat for the three months ended June 30, 2018. The administrative expense ratio increased 0.4 percentage points for the six months ended June 30, 2018 primarily due to merit-based salary and inflationary increases along with the year-over-year impact of the Administrative and Operating (A&O) reimbursements on the

MPCI business we recorded under the government program relative to our participation in underserved states. The current year reimbursement was less than the prior year reimbursement.

The following table presents pre-tax catastrophe losses and pre-tax prior period development net of related reinstatement premiums:

	Three Months Ended		Six Months Ended	
	June 30		June 30	
(in millions of U.S. dollars)	2018	2017	2018	2017
Catastrophe losses, pre-tax	\$ 2	\$ 8	\$ 3	\$ 13
Favorable prior period development net of related reinstatement premiums, pre-tax	\$ —	\$ —	\$ 76	\$ 79

Catastrophe losses through June 30, 2018 and 2017 were primarily from our farm, ranch, and specialty P&C businesses.

There was no prior period development for the three months ended June 30, 2018 and 2017. For the six months ended June 30, 2018, net favorable prior period development was \$76 million which included \$112 million of favorable incurred losses and \$4 million of lower acquisition costs due to lower than expected MPCI losses for the 2017 crop year, partially offset by a \$40 million decrease in net premiums earned related to the MPCI profit and loss calculation formula. For the six months ended June 30, 2017, net favorable prior period development was \$79 million, which included \$135 million of favorable incurred losses and \$5 million lower acquisition costs due to lower than expected MPCI losses for the 2016 crop year, partially offset by a \$61 million decrease in net premiums earned related to the MPCI profit and loss calculation formula.

The following table presents the current accident year loss and loss expense ratio, excluding catastrophe losses and related reinstatement premiums (CAY loss ratio excluding catastrophe losses):

	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Loss and loss expense ratio	80.0 %	85.2 %	57.4 %	61.3 %
Catastrophe losses and related reinstatement premiums	(0.7)%	(2.2)%	(0.8)%	(3.5)%
Prior period development net of related reinstatement premiums	—	—	20.7 %	23.9 %
CAY loss ratio excluding catastrophe losses	79.3 %	83.0 %	77.3 %	81.7 %

The CAY loss ratio excluding catastrophe losses decreased 3.7 percentage points and 4.4 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to the impact of our crop derivatives gains and improved underlying losses in the current year.

## Overseas General Insurance

Overseas General Insurance segment comprises Chubb International and Chubb Global Markets (CGM). Chubb International comprises our commercial P&C traditional and specialty lines serving large corporations, middle market and small customers; A&H and traditional and specialty personal lines business serving local territories outside the U.S., Bermuda, and Canada. CGM, our London-based international commercial P&C excess and surplus lines business, includes Lloyd's of London (Lloyd's) Syndicate 2488. Chubb provides funds at Lloyd's to support underwriting by Syndicate 2488 which is managed by Chubb Underwriting Agencies Limited.

(in millions of U.S. dollars, except for percentages)	Three Months Ended			Six Months Ended		
	June 30		% Change	June 30		% Change
	2018	2017	Q-18 vs. Q-17	2018	2017	YTD-18 vs. YTD-17
Net premiums written <sup>(1)</sup>	\$ 2,199	\$ 2,007	9.6%	\$ 4,583	\$ 4,219	8.6%
Net premiums earned	2,161	2,018	7.1%	4,268	3,954	7.9%
Losses and loss expenses	1,071	964	11.1%	2,149	2,035	5.6%
Policy acquisition costs	584	555	5.2%	1,172	1,084	8.1%
Administrative expenses	266	243	9.5%	505	488	3.5%
Underwriting income <sup>(2)</sup>	240	256	(6.3)%	442	347	27.4%
Net investment income	155	148	4.7%	306	296	3.4%
Other (income) expense	(12)	(3)	300.0%	(5)	(4)	25.0%
Amortization of purchased intangibles	11	11	—	21	22	(4.5)%
Segment income	\$ 396	\$ 396	—	\$ 732	\$ 625	17.1%
Loss and loss expense ratio	49.6%	47.8%	1.8 pts	50.4%	51.5%	(1.1) pts
Policy acquisition cost ratio	27.0%	27.5%	(0.5) pts	27.4%	27.4%	— pts
Administrative expense ratio	12.3%	12.0%	0.3 pts	11.8%	12.3%	(0.5) pts
Combined ratio	88.9%	87.3%	1.6 pts	89.6%	91.2%	(1.6) pts

(1) On a constant-dollar basis, for the three and six months ended June 30, 2018, net premiums written increased \$107 million and \$140 million, or 5.1 percent and 3.1 percent, respectively. Amounts are calculated by translating prior period results using the same local currency rates as the comparable current period. The 2017 net premiums written amount was revised to reflect the transfer of certain multinational accounts (\$1 million and \$13 million, for the three and six months ended, respectively) from the North America Commercial P&C Insurance segment to better align the reporting with the management of these businesses in 2018. There is no impact on a consolidated basis.

(2) On a constant-dollar basis, for the three and six months ended June 30, 2018, underwriting income decreased \$36 million, or 13.1 percent, and increased \$63 million, or 16.7 percent, respectively. Amounts are calculated by translating prior period results using the same local currency rates as the comparable current period.

## Premiums

Net premiums written increased \$192 million and \$364 million, or \$107 million and \$140 million on a constant-dollar basis, for the three and six months ended June 30, 2018, respectively, reflecting growth across most regions and lines of business. Personal lines growth was principally in our automobile line in Mexico driven by new business, as well as in our specialty lines in Asia. P&C lines growth was across all regions, principally in small commercial property and general casualty lines reflecting new business, and in middle market driven by new business and rate increases. This growth was offset by declines in large account business. Accident and health (A&H) lines growth was principally in Asia driven by new business.

Net premiums earned increased \$143 million and \$314 million, or \$43 million and \$105 million on a constant-dollar basis, for the three and six months ended June 30, 2018, respectively, due to the factors described above.

Overseas General Insurance conducts business internationally and in most major foreign currencies. The following tables present a regional breakdown of Overseas General Insurance net premiums written:

(in millions of U.S. dollars, except for percentages)	Three Months Ended June 30						% Change	
	2018	2018 % of Total	2017	2017 % of Total	C\$ (1) 2017	Q-18 vs. Q-17	C\$ (1) Q-18 vs. Q-17	
<b>Region</b>								
Europe	\$ 804	37%	\$ 726	36%	\$ 793	10.7 %	1.4 %	
Latin America	550	25%	508	25%	494	8.3 %	11.3 %	
Asia	764	35%	673	34%	701	13.5 %	9.0 %	
Other <sup>(2)</sup>	81	3%	100	5%	104	(19.0)%	(22.1)%	
<b>Net premiums written</b>	<b>\$ 2,199</b>	<b>100%</b>	<b>\$ 2,007</b>	<b>100%</b>	<b>\$ 2,092</b>	<b>9.6 %</b>	<b>5.1 %</b>	

(1) On a constant-dollar basis. Amounts are calculated by translating prior period results using the same local currency exchange rates as the comparable current period.

(2) Combined International, Eurasia and Africa region, and other international. The 2017 net premiums written as reported and constant-dollar amounts were revised to reflect the transfer of certain multinational accounts (\$1 million for the three months ended) from the North America Commercial P&C Insurance segment to better align the reporting with the management of these businesses in 2018. There is no impact on a consolidated basis.

(in millions of U.S. dollars, except for percentages)	Six Months Ended June 30						% Change	
	2018	2018 % of Total	2017	2017 % of Total	C\$ (1) 2017	YTD-18 vs. YTD-17	C\$ (1) YTD-18 vs. YTD-17	
<b>Region</b>								
Europe	\$ 1,914	42%	\$ 1,756	42%	\$ 1,921	9.0 %	(0.4)%	
Latin America	1,078	24%	1,005	24%	1,001	7.3 %	7.7 %	
Asia	1,421	31%	1,250	30%	1,305	13.7 %	8.9 %	
Other <sup>(2)</sup>	170	3%	208	4%	216	(18.3)%	(21.3)%	
<b>Net premiums written</b>	<b>\$ 4,583</b>	<b>100%</b>	<b>\$ 4,219</b>	<b>100%</b>	<b>\$ 4,443</b>	<b>8.6 %</b>	<b>3.1 %</b>	

(1) On a constant-dollar basis. Amounts are calculated by translating prior period results using the same local currency exchange rates as the comparable current period.

(2) Combined International, Eurasia and Africa region, and other international. The 2017 net premiums written as reported and constant-dollar amounts were revised to reflect the transfer of certain multinational accounts (\$13 million for the six months ended) from the North America Commercial P&C Insurance segment to better align the reporting with the management of these businesses in 2018. There is no impact on a consolidated basis.

Net premiums written increased for the three and six months ended June 30, 2018, in Asia and Latin America due to the same factors as described above.

### Combined Ratio

The loss and loss expense ratio increased 1.8 percentage points for the three months ended June 30, 2018, reflecting higher catastrophe losses and less favorable prior period development in the current year. The loss and loss expense ratio decreased 1.1 percentage points for the six months ended June 30, 2018, principally from lower catastrophe losses and more favorable prior period development in the current year. In addition, the decrease in the loss and loss expense ratio reflected a change in the mix of business towards consumer and property and casualty lines in countries that have a lower loss ratio and a higher acquisition cost ratio (0.6 percentage points) and integration-related claims handling expense savings realized (0.1 percentage points).

The policy acquisition cost ratio decreased 0.5 percentage points for the three months ended June 30, 2018 due to the benefit of higher cede commissions (0.4 percentage points) in the current year. The policy acquisition cost ratio remained flat for the six months ended June 30, 2018.

The administrative expense ratio increased 0.3 percentage points for the three months ended June 30, 2018, primarily driven by higher employee benefit related expenses (0.5 percentage points) and increased spending to support growth, partially offset by integration-expense savings realized (0.4 percentage points). For the six months ended June 30, 2018, the administrative expense ratio decreased 0.5 percentage points due to integration-related expense savings realized (0.5 percentage points).

The following table presents pre-tax catastrophe losses and pre-tax prior period development net of related reinstatement premiums:

(in millions of U.S. dollars)	Three Months Ended June 30		Six Months Ended June 30	
	2018	2017	2018	2017
Catastrophe losses, pre-tax	\$ 26	\$ 10	\$ 41	\$ 60
Favorable prior period development net of related reinstatement premiums, pre-tax	\$ 72	\$ 88	\$ 94	\$ 76

Catastrophe losses through June 30, 2018 and 2017 were primarily from the following events:

- 2018 : Severe weather-related events in Asia Pacific and Europe
- 2017 : Cyclone Debbie in Australia and flooding in Latin America

The following table presents the current accident year loss and loss expense ratio, excluding catastrophe losses and related reinstatement premiums (CAY loss ratio excluding catastrophe losses):

	Three Months Ended June 30		Six Months Ended June 30	
	2018	2017	2018	2017
Loss and loss expense ratio	49.6 %	47.8 %	50.4 %	51.5 %
Catastrophe losses and related reinstatement premiums	(1.2)%	(0.5)%	(1.0)%	(1.6)%
Prior period development net of related reinstatement premiums	3.3 %	4.3 %	2.2 %	2.0 %
CAY loss ratio excluding catastrophe losses	51.7 %	51.6 %	51.6 %	51.9 %

The CAY loss ratio excluding catastrophe losses remained relatively flat for the three months ended June 30, 2018 . For the six months ended June 30, 2018 , the CAY loss ratio excluding catastrophe losses decreased 0.3 percentage points, due to the factors driving the decrease in the loss and loss expense ratio described above.

## Global Reinsurance

The Global Reinsurance segment represents our reinsurance operations comprising Chubb Tempest Re Bermuda, Chubb Tempest Re USA, Chubb Tempest Re International, and Chubb Tempest Re Canada. Global Reinsurance markets its reinsurance products worldwide under the Chubb Tempest Re brand name and provides a broad range of traditional reinsurance coverage to a diverse array of primary P&C companies.

(in millions of U.S. dollars, except for percentages)	Three Months Ended			Six Months Ended		
	June 30		% Change	June 30		% Change
	2018	2017	Q-18 vs. Q-17	2018	2017	YTD-18 vs. YTD-17
Net premiums written	\$ 197	\$ 190	3.8%	\$ 390	\$ 389	0.4%
Net premiums earned	167	168	(0.6)%	335	357	(6.1)%
Losses and loss expenses	83	46	80.4%	150	140	7.1%
Policy acquisition costs	40	43	(7.0)%	80	94	(14.9)%
Administrative expenses	9	12	(25.0)%	19	22	(13.6)%
Underwriting income	35	67	(47.8)%	86	101	(14.9)%
Net investment income	65	65	—	129	127	1.6%
Other (income) expense	(6)	1	NM	(13)	1	NM
Segment income	\$ 106	\$ 131	(19.1)%	\$ 228	\$ 227	0.4%
Loss and loss expense ratio	49.4%	27.8%	21.6 pts	44.8%	39.3%	5.5 pts
Policy acquisition cost ratio	24.2%	25.7%	(1.5) pts	23.9%	26.3%	(2.4) pts
Administrative expense ratio	5.7%	6.7%	(1.0) pt	5.7%	6.2%	(0.5) pts
Combined ratio	79.3%	60.2%	19.1 pts	74.4%	71.8%	2.6 pts

NM - not meaningful

### Premiums

Net premiums written increased \$7 million and \$1 million, or increased \$3 million and decreased \$7 million on a constant-dollar basis for the three and six months ended June 30, 2018, respectively, primarily due to new business written in casualty and property lines, partially offset by lower renewals, reflecting competitive market conditions. In addition, the prior year included a \$7 million favorable non-recurring reinstatement premium adjustment related to prior period loss development.

Net premiums earned decreased \$1 million and \$22 million, or \$5 million and \$30 million on a constant-dollar basis, for the three and six months ended June 30, 2018, respectively, reflecting the decrease in net premiums written, excluding reinstatement premiums, over the last twelve months. For the three and six months ended June 30, 2018, the decrease was also due to \$2 million and \$15 million, respectively, of short-term treaties earned in the prior year that were written in 2016 and 2017.

### Combined Ratio

The loss and loss expense ratio increased 21.6 percentage points and 5.5 percentage points for the three and six months ended June 30, 2018, respectively. The increase for the three months ended June 30, 2018 was principally due to less favorable prior period development and higher catastrophe losses as well as a shift in the mix of business from property catastrophe business towards casualty business which generally has a higher loss ratio. For the six months ended June 30, 2018, the increase was principally due to a shift in the mix of business and higher catastrophe losses, partially offset by higher favorable prior period development.

The policy acquisition cost ratio decreased 1.5 percentage points and 2.4 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to a reduction in our acquisition expenses on U.S. structured property treaties that have adjustable commission features.

The administrative expense ratio decreased 1.0 percentage point and 0.5 percentage points for the three and six months ended June 30, 2018, respectively, primarily due to lower employee benefit related expenses.

The following table presents pre-tax catastrophe losses and pre-tax prior period development net of related reinstatement premiums and acquisition expense adjustments:

(in millions of U.S dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Catastrophe losses, pre-tax	\$ 9	\$ 3	\$ 11	\$ 3
Favorable prior period development net of related reinstatement premiums and acquisition expense adjustments, pre-tax <sup>(1)(2)</sup>	\$ 16	\$ 31	\$ 30	\$ 23
(1) Favorable (unfavorable) reinstatement premiums receivable on prior period development - pre-tax	\$ (2)	\$ —	\$ (3)	\$ 7
(2) Favorable acquisition expense adjustment payable on prior period development - pre-tax	\$ 1	\$ —	\$ 1	\$ —

Catastrophe losses through June 30, 2018 and 2017 were from severe weather-related events in the U.S. and Europe.

The following table presents the current accident year loss and loss expense ratio, excluding catastrophe losses, related reinstatement premiums and acquisition expense adjustments (CAY loss ratio excluding catastrophe losses):

	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Loss and loss expense ratio	49.4 %	27.8 %	44.8 %	39.3 %
Catastrophe losses and related reinstatement premiums	(5.4)%	(1.9)%	(3.3)%	(0.8)%
Prior period development net of related reinstatement premiums and acquisition expense adjustments	9.0 %	18.5 %	8.9 %	5.3 %
CAY loss ratio excluding catastrophe losses	53.0 %	44.4 %	50.4 %	43.8 %

The CAY loss ratio excluding catastrophe losses increased 8.6 percentage points and 6.6 percentage points for the three and six months ended June 30, 2018 , respectively, primarily due to a shift in the mix of business from property catastrophe business towards casualty business which generally has a higher loss ratio and higher losses in our U.S. property lines.

## Life Insurance

The Life Insurance segment comprises Chubb's international life operations, Chubb Tempest Life Re (Chubb Life Re), and the North American supplemental A&H and life business of Combined Insurance. We assess the performance of our life business based on Life Insurance underwriting income, which includes Net investment income and (Gains) losses from fair value changes in separate account assets that do not qualify for separate account reporting under GAAP.

(in millions of U.S. dollars, except for percentages)	Three Months Ended			Six Months Ended		
	June 30		% Change	June 30		% Change
	2018	2017	Q-18 vs. Q-17	2018	2017	YTD-18 vs. YTD-17
Net premiums written	\$ 565	\$ 523	8.0 %	\$ 1,124	\$ 1,047	7.4 %
Net premiums earned	552	515	7.2 %	1,092	1,021	7.0 %
Losses and loss expenses	184	182	1.1 %	389	375	3.7 %
Policy benefits <sup>(1)</sup>	150	163	(8.0)%	301	331	(9.1)%
(Gains) losses from fair value changes in separate account assets <sup>(1)</sup>	10	(16)	NM	4	(46)	NM
Policy acquisition costs	138	130	6.2 %	266	244	9.0 %
Administrative expenses	80	77	3.9 %	158	149	6.0 %
Net investment income	85	77	10.4 %	168	152	10.5 %
Life Insurance underwriting income	75	56	33.9 %	142	120	18.3 %
Other (income) expense <sup>(1)</sup>	(2)	4	NM	—	5	NM
Amortization of purchased intangibles	—	—	—	1	1	—
Segment income	\$ 77	\$ 52	48.1 %	\$ 141	\$ 114	23.7 %

NM – not meaningful

(1) (Gains) losses from fair value changes in separate account assets that do not qualify for separate account reporting under GAAP have been reclassified from Other income (expense) for purposes of presenting Life Insurance underwriting income. The offsetting movement in the separate account liabilities is included in Policy benefits.

## Premiums

Net premiums written increased \$42 million and \$77 million, or \$35 million and \$61 million on a constant-dollar basis, for the three and six months ended June 30, 2018, respectively, primarily due to growth in our Asian international life operations and North American Combined Insurance supplemental A&H program business. This increase was partially offset by our life reinsurance business, which continues to decline as no new life reinsurance business is currently being written.

## Deposits

The following table presents deposits collected on universal life and investment contracts:

(in millions of U.S. dollars, except for percentages)	Three Months Ended					Six Months Ended				
	June 30		% Change			June 30		% Change		
	2018	2017	C\$ <sup>(1)</sup> 2017	Q-18 vs. Q-17	C\$ <sup>(1)</sup> Q-18 vs. Q-17	2018	2017	C\$ <sup>(1)</sup> 2017	Y-18 vs. Y-17	C\$ <sup>(1)</sup> Y-18 vs. Y-17
Deposits collected on Universal life and investment contracts	\$ 392	\$ 316	\$ 324	24.1%	21.1%	\$ 771	\$ 626	\$ 648	23.0%	19.0%

(1) On a constant-dollar basis. Amounts are calculated by translating prior period results using the same local currency exchange rates as the comparable current period.

Deposits collected on universal life and investment contracts (life deposits) are not reflected as revenues in our Consolidated statements of operations in accordance with GAAP. New life deposits are an important component of production, and although they do not significantly affect current period income from operations, they are key to our efforts to grow our business. Life deposits collected increased for the three and six months ended June 30, 2018, due to growth in Taiwan, Korea, and Vietnam.

### Life Insurance underwriting income

Life Insurance underwriting income increased \$19 million and \$22 million for the three and six months ended June 30, 2018, respectively, principally reflecting growth as described above as well as an increase in net investment income.

### Corporate

Corporate results primarily include income and expenses not attributable to reportable segments and loss and loss expenses of asbestos and environmental (A&E) liabilities.

(in millions of U.S. dollars, except for percentages)	Three Months Ended			Six Months Ended		
	June 30		% Change	June 30		% Change
	2018	2017	Q-18 vs. Q-17	2018	2017	YTD-18 vs. YTD-17
Losses and loss expenses	\$ 48	\$ 45	6.7 %	\$ 59	\$ 56	5.4 %
Administrative expenses	70	65	7.7 %	142	123	15.4 %
Underwriting loss	118	110	7.3 %	201	179	12.3 %
Net investment income (loss)	(52)	(72)	(27.8)%	(113)	(151)	(25.2)%
Interest expense	167	147	13.6 %	324	301	7.6 %
Net realized gains (losses)	10	101	(90.1)%	6	94	(93.6)%
Other (income) expense	(94)	(129)	(27.1)%	(131)	(174)	(24.7)%
Amortization expense of purchased intangibles	64	42	52.4 %	128	84	52.4 %
Chubb integration expenses	13	72	(81.9)%	23	183	(87.4)%
Income tax expense	218	200	9.0 %	353	328	7.6 %
Net loss	\$ (528)	\$ (413)	27.8 %	\$ (1,005)	\$ (958)	4.9 %

Losses and loss expenses for the three and six months ended June 30, 2018 and 2017 were primarily from unfavorable prior period development related to non-A&E run-off casualty exposures as well as unallocated loss adjustment expenses of the A&E claim operations.

Administrative expenses increased \$5 million and \$19 million for the three and six months ended June 30, 2018, respectively, primarily due to higher employee benefit-related expenses, increased spending to support growth, and higher global advertising expenses.

Chubb integration expenses are one-time in nature and are not related to the on-going business activities of the segments. The Chief Executive Officer does not manage segment results or allocate resources to segments when considering these costs and they are therefore excluded from our definition of segment income. Chubb integration expenses principally consisted of personnel-related expenses (\$5 million and \$34 million, for the three months ended June 30, 2018 and 2017 respectively, and \$10 million and \$115 million for the six months ended June 30, 2018 and 2017, respectively).

Refer to the respective sections for a discussion of Net investment income, Interest expense, Other (income) expense, Net realized gains and losses, Amortization of purchased intangibles, and Income tax expense.

### Effective Income Tax Rate

Our effective income tax rate reflects a mix of income or losses in jurisdictions with a wide range of tax rates, permanent differences between GAAP and local tax laws, and the timing of recording discrete items. A change in the geographic mix of earnings could impact our effective tax rate.

For the three and six months ended June 30, 2018, our effective tax rate was 14.4 percent and 12.9 percent, respectively, compared to 13.3 percent and 12.0 percent, respectively, in the prior year periods. The effective income tax rate in the current year was higher compared to the prior year primarily from a lower tax benefit due to a reduction in integration expenses and larger amount of realized gains recognized in higher taxed jurisdictions. This increase was offset by the favorable impact of the

reduced U.S. corporate income tax rate that resulted from the passage of the Tax Cuts and Jobs Act and a higher tax benefit from higher catastrophe losses in the U.S. in the current year.

The 12.0 percent effective tax rate in the prior year included an income tax benefit of \$55 million, comprised of a non-recurring reduction to income tax expense related to an accounting election for certain discrete investments that resulted in the release of the associated deferred tax liability (\$25 million) and the adoption of stock compensation guidance related to excess tax benefits (\$5 million and \$30 million for the three and six months ended June 30, 2017, respectively).

The lower tax rates attributed to our foreign operations primarily reflect the lower corporate tax rates that prevail outside of the U.S. During the three and six months ended June 30, 2018, approximately 63 percent and 52 percent, respectively, of our total pre-tax income was tax effected based on these lower rates compared with 60 percent and 59 percent for the three and six months ended June 30, 2017. The significant lower taxing jurisdictions outside of the U.S. include the U.K., Switzerland, and Bermuda with effective federal income tax rates in those countries of 19.0 percent, 7.83 percent, and 0.0 percent, respectively.

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### **Non-GAAP Reconciliation**

P&C performance metrics are non-GAAP financial measures and comprise consolidated operating results (including Corporate) and exclude the operating results of the Life Insurance segment. We believe that these measures are useful and meaningful to investors as they are used by management to assess the company's P&C operations which are the most economically similar. We exclude the Life Insurance segment because the results of this business do not always correlate with the results of our P&C operations.

The P&C combined ratio is a non-GAAP financial measure and includes the impact of realized gains and losses on crop derivatives. These derivatives were purchased to provide economic benefit, in a manner similar to reinsurance protection, in the event that a significant decline in commodity pricing will impact underwriting results. We view gains and losses on these derivatives as part of the results of our underwriting operations.

CAY P&C combined ratio excluding the impact of catastrophe losses (CATs) and prior period development (PPD) is a non-GAAP financial measure. The combined ratio numerator includes adjusted losses and loss expenses, policy acquisition costs, and administrative expenses. The denominator includes net premiums earned adjusted to exclude the amount of reinstatement premiums (expensed) collected. In periods where there are adjustments on loss sensitive policies, these adjustments are excluded from PPD and net premiums earned when calculating the ratios. We exclude catastrophe losses as they are not predictable as to timing and amount and PPD as these unexpected loss developments on historical reserves are not indicative of our current underwriting performance. We believe that excluding the impact of CATs and PPD provides a better evaluation of our underwriting performance and enhances the understanding of the trends in our property & casualty business that may be obscured by these items. This measure is commonly reported among our peers and allows for comparison to other property & casualty insurance companies.

The P&C combined ratio with an expected level of CATs and the CAY P&C combined ratio with an expected level of CATs are non-GAAP financial measures which excludes CATs above or below managements' view of typical CATs for that period. An expected level of CATs is determined based on various factors, including historical experience, seasonal patterns, and consideration of both modeled CATs (e.g., windstorm and earthquake) as well as non-modeled CATs (e.g., wildfires, floods and freeze). For the three and six months ended June 30, 2018, based on these and other factors, the expected level of CATs was \$225 million and \$430 million, respectively, resulting in CATs above (below) expected level of \$(14) million and \$161 million, respectively. For the three and six months ended June 30, 2017, based on these and other factors, the expected level of CATs was \$212 million and \$413 million, respectively, resulting in CATs above (below) expected level of \$(12) million and \$(7) million, respectively. We believe that these measures are meaningful and provide a better indication of our underwriting performance as the portion of CATs intended to be covered by the premiums over time is retained in the calculation. These measures more appropriately align the numerator with an expected level of CATs to the denominator which includes the net premiums earned on policies with exposures to that business. The CAY P&C combined ratio with an expected level of CATs excludes PPD as these unexpected loss developments on historical reserves are not indicative of our current underwriting performance when looking at the current accident year results.

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The following tables present the calculation of combined ratio, as reported for each segment to P&C combined ratio, adjusted for catastrophe losses (CATs) and PPD:

Three Months Ended June 30, 2018 (in millions of U.S. dollars except for ratios)	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Corporate	Total P&C
<b>Numerator</b>							
<b>Losses and loss expenses</b>							
Losses and loss expenses	\$ 2,084	\$ 728	\$ 289	\$ 1,071	\$ 83	\$ 48	\$ 4,303
Realized (gains) losses on crop derivatives	—	—	(8)	—	—	—	(8)
Adjusted losses and loss expenses	<b>A \$ 2,084</b>	<b>\$ 728</b>	<b>\$ 281</b>	<b>\$ 1,071</b>	<b>\$ 83</b>	<b>\$ 48</b>	<b>\$ 4,295</b>
Catastrophe losses	(73)	(101)	(2)	(26)	(9)	—	(211)
<b>PPD and related adjustments</b>							
PPD, net of related adjustments - favorable (unfavorable)	155	(7)	—	72	16	(45)	191
Net premiums earned adjustments on PPD - unfavorable (favorable)	(11)	—	—	—	2	—	(9)
Expense adjustments - unfavorable (favorable)	—	—	—	—	(1)	—	(1)
PPD - gross of related adjustments - favorable (unfavorable)	144	(7)	—	72	17	(45)	181
<b>CAY loss and loss expense ex CATs</b>	<b>B \$ 2,155</b>	<b>\$ 620</b>	<b>\$ 279</b>	<b>\$ 1,117</b>	<b>\$ 91</b>	<b>\$ 3</b>	<b>\$ 4,265</b>
<b>Policy acquisition costs and administrative expenses</b>							
Policy acquisition costs and administrative expenses	C \$ 701	\$ 296	\$ 27	\$ 850	\$ 49	\$ 70	\$ 1,993
Expense adjustments - favorable (unfavorable)	—	—	—	—	1	—	1
Policy acquisition costs and administrative expenses, adjusted	D \$ 701	\$ 296	\$ 27	\$ 850	\$ 50	\$ 70	\$ 1,994
<b>Denominator</b>							
<b>Net premiums earned</b>	<b>E \$ 3,277</b>	<b>\$ 1,156</b>	<b>\$ 351</b>	<b>\$ 2,161</b>	<b>\$ 167</b>		<b>\$ 7,112</b>
Net premiums earned adjustments on PPD - unfavorable (favorable)	(11)	—	—	—	2		(9)
<b>Net premiums earned excluding adjustments</b>	<b>F \$ 3,266</b>	<b>\$ 1,156</b>	<b>\$ 351</b>	<b>\$ 2,161</b>	<b>\$ 169</b>		<b>\$ 7,103</b>
<b>P&amp;C Combined ratio</b>							
Losses and loss expense ratio	A/E	63.6%	63.0%	80.0%	49.6%	49.4%	60.4 %
Policy acquisition costs and administrative expense ratio	C/E	21.4%	25.6%	7.9%	39.3%	29.9%	28.0 %
P&C Combined ratio		85.0%	88.6%	87.9%	88.9%	79.3%	88.4 %
<b>CAY P&amp;C Combined ratio ex CATs</b>							
Loss and loss expense ratio, adjusted	B/F	66.0%	53.7%	79.3%	51.7%	53.0%	60.0 %
Policy acquisition costs and administrative expense ratio, adjusted	D/F	21.4%	25.6%	7.9%	39.3%	30.5%	28.1 %
CAY P&C Combined ratio ex CATs		87.4%	79.3%	87.2%	91.0%	83.5%	88.1 %
<b>Combined ratio</b>							
Combined ratio							88.5 %
Add: impact of gains and losses on crop derivatives							(0.1)%
P&C Combined ratio							88.4 %

Note: The ratios above are calculated using whole U.S. dollars. Accordingly, calculations using rounded amounts may differ. Letters A, B, C, D, E, and F included in the table are references for calculating the ratios above.



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Three Months Ended June 30, 2017 (in millions of U.S. dollars except for ratios)	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Corporate	Total P&C
<b>Numerator</b>							
<b>Losses and loss expenses</b>							
Losses and loss expenses	\$ 1,936	\$ 683	\$ 290	\$ 964	\$ 46	\$ 45	\$ 3,964
Realized (gains) losses on crop derivatives	—	—	2	—	—	—	2
Adjusted losses and loss expenses	<b>A</b> \$ 1,936	\$ 683	\$ 292	\$ 964	\$ 46	\$ 45	\$ 3,966
Catastrophe losses	(102)	(77)	(8)	(10)	(3)	—	(200)
<b>PPD and related adjustments</b>							
PPD, net of related adjustments - favorable (unfavorable)	131	(37)	—	88	31	(43)	170
Net premiums earned adjustments on PPD - unfavorable (favorable)	2	—	—	—	—	—	2
PPD - gross of related adjustments - favorable (unfavorable)	133	(37)	—	88	31	(43)	172
<b>CAY loss and loss expense ex CATs</b>	<b>B</b> \$ 1,967	\$ 569	\$ 284	\$ 1,042	\$ 74	\$ 2	\$ 3,938
<b>Policy acquisition costs and administrative expenses</b>							
Policy acquisition costs and administrative expenses	<b>C</b> \$ 705	\$ 296	\$ 29	\$ 798	\$ 55	\$ 65	\$ 1,948
Policy acquisition costs and administrative expenses, adjusted	<b>D</b> \$ 705	\$ 296	\$ 29	\$ 798	\$ 55	\$ 65	\$ 1,948
<b>Denominator</b>							
<b>Net premiums earned</b>	<b>E</b> \$ 3,099	\$ 1,093	\$ 344	\$ 2,018	\$ 168		\$ 6,722
Net premiums earned adjustments on PPD - unfavorable (favorable)	2	—	—	—	—		2
<b>Net premiums earned excluding adjustments</b>	<b>F</b> \$ 3,101	\$ 1,093	\$ 344	\$ 2,018	\$ 168		\$ 6,724
<b>P&amp;C Combined ratio</b>							
Losses and loss expense ratio	<b>A/E</b>	62.5%	62.4%	85.2%	47.8%	27.8%	59.0%
Policy acquisition costs and administrative expense ratio	<b>C/E</b>	22.7%	27.2%	8.1%	39.5%	32.4%	29.0%
P&C Combined ratio		85.2%	89.6%	93.3%	87.3%	60.2%	88.0%
<b>CAY P&amp;C Combined ratio ex CATs</b>							
Loss and loss expense ratio, adjusted	<b>B/F</b>	63.4%	52.1%	83.0%	51.6%	44.4%	58.6%
Policy acquisition costs and administrative expense ratio, adjusted	<b>D/F</b>	22.7%	27.2%	8.1%	39.6%	32.6%	28.9%
CAY P&C Combined ratio ex CATs		86.1%	79.3%	91.1%	91.2%	77.0%	87.5%
<b>Combined ratio</b>							
Combined ratio							88.0%
Add: impact of gains and losses on crop derivatives							—
P&C Combined ratio							88.0%

Note: The ratios above are calculated using whole U.S. dollars. Accordingly, calculations using rounded amounts may differ. Letters A, B, C, D, E, and F included in the table are references for calculating the ratios above.



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Six Months Ended June 30, 2018 (in millions of U.S. dollars except for ratios)	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Corporate	Total P&C
<b>Numerator</b>							
<b>Losses and loss expenses</b>							
Losses and loss expenses	\$ 3,992	\$ 1,614	\$ 236	\$ 2,149	\$ 150	\$ 59	\$ 8,200
Realized (gains) losses on crop derivatives	—	—	(10)	—	—	—	(10)
Adjusted losses and loss expenses	<b>A \$ 3,992</b>	<b>\$ 1,614</b>	<b>\$ 226</b>	<b>\$ 2,149</b>	<b>\$ 150</b>	<b>\$ 59</b>	<b>\$ 8,190</b>
Catastrophe losses	(151)	(385)	(3)	(41)	(11)	—	(591)
<b>PPD and related adjustments</b>							
PPD, net of related adjustments - favorable (unfavorable)	256	(1)	76	94	30	(55)	400
Net premiums earned adjustments on PPD - unfavorable (favorable)	(11)	—	40	—	3	—	32
Expense adjustments - unfavorable (favorable)	6	—	(4)	—	(1)	—	1
PPD reinstatement premiums	4	—	—	—	—	—	4
PPD - gross of related adjustments - favorable (unfavorable)	255	(1)	112	94	32	(55)	437
<b>CAY loss and loss expense ex CATs</b>	<b>B \$ 4,096</b>	<b>\$ 1,228</b>	<b>\$ 335</b>	<b>\$ 2,202</b>	<b>\$ 171</b>	<b>\$ 4</b>	<b>\$ 8,036</b>
<b>Policy acquisition costs and administrative expenses</b>							
Policy acquisition costs and administrative expenses	<b>C \$ 1,404</b>	<b>\$ 598</b>	<b>\$ 23</b>	<b>\$ 1,677</b>	<b>\$ 99</b>	<b>\$ 142</b>	<b>\$ 3,943</b>
Expense adjustments - favorable (unfavorable)	(6)	—	4	—	1	—	(1)
Policy acquisition costs and administrative expenses, adjusted	<b>D \$ 1,398</b>	<b>\$ 598</b>	<b>\$ 27</b>	<b>\$ 1,677</b>	<b>\$ 100</b>	<b>\$ 142</b>	<b>\$ 3,942</b>
<b>Denominator</b>							
<b>Net premiums earned</b>	<b>E \$ 6,306</b>	<b>\$ 2,296</b>	<b>\$ 394</b>	<b>\$ 4,268</b>	<b>\$ 335</b>		<b>\$ 13,599</b>
Net premiums earned adjustments on PPD - unfavorable (favorable)	(11)	—	40	—	3		32
Reinstatement premiums expensed on PPD	4	—	—	—	—		4
<b>Net premiums earned excluding adjustments</b>	<b>F \$ 6,299</b>	<b>\$ 2,296</b>	<b>\$ 434</b>	<b>\$ 4,268</b>	<b>\$ 338</b>		<b>\$ 13,635</b>
<b>P&amp;C Combined ratio</b>							
Losses and loss expense ratio	<b>A/E</b>	<b>63.3%</b>	<b>70.3%</b>	<b>57.4%</b>	<b>50.4%</b>	<b>44.8%</b>	<b>60.2 %</b>
Policy acquisition costs and administrative expense ratio	<b>C/E</b>	<b>22.3%</b>	<b>26.0%</b>	<b>5.9%</b>	<b>39.2%</b>	<b>29.6%</b>	<b>29.0 %</b>
P&C Combined ratio		<b>85.6%</b>	<b>96.3%</b>	<b>63.3%</b>	<b>89.6%</b>	<b>74.4%</b>	<b>89.2 %</b>
<b>CAY P&amp;C Combined ratio ex CATs</b>							
Loss and loss expense ratio, adjusted	<b>B/F</b>	<b>65.0%</b>	<b>53.5%</b>	<b>77.3%</b>	<b>51.6%</b>	<b>50.4%</b>	<b>58.9 %</b>
Policy acquisition costs and administrative expense ratio, adjusted	<b>D/F</b>	<b>22.2%</b>	<b>26.0%</b>	<b>6.2%</b>	<b>39.3%</b>	<b>29.9%</b>	<b>28.9 %</b>
CAY P&C Combined ratio ex CATs		<b>87.2%</b>	<b>79.5%</b>	<b>83.5%</b>	<b>90.9%</b>	<b>80.3%</b>	<b>87.8 %</b>
<b>Combined ratio</b>							
Combined ratio							<b>89.3 %</b>
Add: impact of gains and losses on crop derivatives							<b>(0.1)%</b>
P&C Combined ratio							<b>89.2 %</b>

Note: The ratios above are calculated using whole U.S. dollars. Accordingly, calculations using rounded amounts may differ. Letters A, B, C, D, E, and F included in the table are references for calculating the ratios above.



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Six Months Ended June 30, 2017 (in millions of U.S. dollars except for ratios)	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Corporate	Total P&C
<b>Numerator</b>							
<b>Losses and loss expenses</b>							
Losses and loss expenses	\$ 3,796	\$ 1,316	\$ 217	\$ 2,035	\$ 140	\$ 56	\$ 7,560
Realized (gains) losses on crop derivatives	—	—	2	—	—	—	2
Adjusted losses and loss expenses	<b>A \$ 3,796</b>	<b>\$ 1,316</b>	<b>\$ 219</b>	<b>\$ 2,035</b>	<b>\$ 140</b>	<b>\$ 56</b>	<b>\$ 7,562</b>
Catastrophe losses	(185)	(145)	(13)	(60)	(3)	—	(406)
<b>PPD and related adjustments</b>							
PPD, net of related adjustments - favorable (unfavorable)	310	(34)	79	76	23	(53)	401
Net premiums earned adjustments on PPD - unfavorable (favorable)	2	—	61	—	(7)	—	56
Expense adjustments - unfavorable (favorable)	—	—	(5)	—	—	—	(5)
PPD reinstatement premiums	9	—	—	—	—	—	9
PPD - gross of related adjustments - favorable (unfavorable)	321	(34)	135	76	16	(53)	461
<b>CAY loss and loss expense ex CATs</b>	<b>B \$ 3,932</b>	<b>\$ 1,137</b>	<b>\$ 341</b>	<b>\$ 2,051</b>	<b>\$ 153</b>	<b>\$ 3</b>	<b>\$ 7,617</b>
<b>Policy acquisition costs and administrative expenses</b>							
Policy acquisition costs and administrative expenses	<b>C \$ 1,423</b>	<b>\$ 578</b>	<b>\$ 23</b>	<b>\$ 1,572</b>	<b>\$ 116</b>	<b>\$ 123</b>	<b>\$ 3,835</b>
Expense adjustments - favorable (unfavorable)	—	—	5	—	—	—	5
Policy acquisition costs and administrative expenses, adjusted	<b>D \$ 1,423</b>	<b>\$ 578</b>	<b>\$ 28</b>	<b>\$ 1,572</b>	<b>\$ 116</b>	<b>\$ 123</b>	<b>\$ 3,840</b>
<b>Denominator</b>							
<b>Net premiums earned</b>	<b>E \$ 6,140</b>	<b>\$ 2,179</b>	<b>\$ 358</b>	<b>\$ 3,954</b>	<b>\$ 357</b>		<b>\$ 12,988</b>
Net premiums earned adjustments on PPD - unfavorable (favorable)	2	—	61	—	(7)		56
Reinstatement premiums expensed on PPD	9	—	—	—	—		9
<b>Net premiums earned excluding adjustments</b>	<b>F \$ 6,151</b>	<b>\$ 2,179</b>	<b>\$ 419</b>	<b>\$ 3,954</b>	<b>\$ 350</b>		<b>\$ 13,053</b>
<b>P&amp;C Combined ratio</b>							
Losses and loss expense ratio	<b>A/E</b>	61.8%	60.4%	61.3%	51.5%	39.3%	58.2%
Policy acquisition costs and administrative expense ratio	<b>C/E</b>	23.2%	26.5%	6.4%	39.7%	32.5%	29.6%
P&C Combined ratio		85.0%	86.9%	67.7%	91.2%	71.8%	87.8%
<b>CAY P&amp;C Combined ratio ex CATs</b>							
Loss and loss expense ratio, adjusted	<b>B/F</b>	63.9%	52.2%	81.7%	51.9%	43.8%	58.4%
Policy acquisition costs and administrative expense ratio, adjusted	<b>D/F</b>	23.1%	26.6%	6.5%	39.7%	33.2%	29.4%
CAY P&C Combined ratio ex CATs		87.0%	78.8%	88.2%	91.6%	77.0%	87.8%
<b>Combined ratio</b>							
Combined ratio							87.8%
Add: impact of gains and losses on crop derivatives							—

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Note: The ratios above are calculated using whole U.S. dollars. Accordingly, calculations using rounded amounts may differ. Letters A, B, C, D, E, and F included in the table are references for calculating the ratios above.

## Other Income and Expense Items

(in millions of U.S. dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Equity in net (income) loss of partially-owned entities	\$ (117)	\$ (146)	\$ (176)	\$ (199)
(Gains) losses from fair value changes in separate account assets <sup>(1)</sup>	10	(16)	4	(46)
Federal excise and capital taxes	4	15	7	18
Other	(12)	2	3	12
Other (income) expense	\$ (115)	\$ (145)	\$ (162)	\$ (215)

(1) Related to (gains) losses from fair value changes in separate account assets that do not qualify for separate account reporting under GAAP.

Other (income) expense includes equity in net (income) loss of partially-owned entities, which includes our share of net (income) loss related to partially-owned investment companies (private equity) and partially-owned insurance companies. Also included in Other (income) expense are (Gains) losses from fair value changes in separate account assets that do not qualify for separate account reporting under GAAP. The offsetting movement in the separate account liabilities is included in Policy benefits in the Consolidated statements of operations. Certain federal excise and capital taxes incurred as a result of capital management initiatives are included in Other (income) expense as these are considered capital transactions and are excluded from underwriting results.

## Amortization of purchased intangibles and Other amortization

Amortization expense related to purchased intangibles was \$85 million and \$170 million for the three and six months ended June 30, 2018, respectively, compared with \$65 million and \$129 million, respectively, in the prior year periods. The increase in amortization expense of purchased intangibles reflects higher intangible amortization expense related to agency distribution relationships and renewal rights and lower amortization benefit from the fair value adjustment on Unpaid losses and loss expenses.

Amortization expense for the remainder of 2018 is expected to be \$164 million, or \$82 million each quarter.

The following table presents, as of June 30, 2018, the estimated pre-tax amortization expense (benefit) of purchased intangibles, at current foreign currency exchange rates, for the third and fourth quarters of 2018 and the next five years:

For the Years Ending December 31 (in millions of U.S. dollars)	Associated with the Chubb Corp Acquisition					Total <sup>(1)</sup>	Other intangible assets <sup>(2)</sup>	Total Amortization of purchased intangibles
	Agency distribution relationships and renewal rights	Internally developed technology	Fair value adjustment on Unpaid losses and loss expenses					
Third quarter of 2018	\$ 81	\$ 8	\$ (26)	\$ 63	\$ 19	\$ 82		
Fourth quarter of 2018	81	8	(26)	63	19	82		
2019	282	—	(62)	220	75	295		
2020	240	—	(36)	204	68	272		
2021	217	—	(20)	197	63	260		
2022	198	—	(14)	184	57	241		
2023	179	—	(7)	172	51	223		
Total	\$ 1,278	\$ 16	\$ (191)	\$ 1,103	\$ 352	\$ 1,455		

(1) Recorded in Corporate.

(2) Recorded in applicable segment(s) that acquired the intangible assets.

**Reduction of deferred tax liability associated with intangible assets related to Other intangible assets (excluding the fair value adjustment on Unpaid losses and loss expense)**

At June 30, 2018, the deferred tax liability associated with Other intangible assets (excluding the fair value adjustment on Unpaid losses and loss expense) was \$1,379 million.

The following table presents, as of June 30, 2018, the expected reduction of the deferred tax liability associated with Other intangible assets (which reduces as agency distribution relationships and renewal rights, internally developed technology, and other intangible assets amortize), at current foreign currency exchange rates, for the third and fourth quarters of 2018 and for the next five years:

For the Years Ending December 31 (in millions of U.S. dollars)	Reduction to deferred tax liability associated with intangible assets
Third quarter of 2018	\$ 24
Fourth quarter of 2018	24
2019	79
2020	68
2021	62
2022	56
2023	51
<b>Total</b>	<b>\$ 364</b>

**Amortization of the fair value adjustment on acquired invested assets and assumed long-term debt**

The following table presents at June 30, 2018, the expected amortization expense of the fair value adjustment on acquired invested assets, at current foreign currency exchange rates, and the expected amortization benefit from the amortization of the fair value adjustment on assumed long-term debt for the third and fourth quarters of 2018 and for the next five years:

For the Years Ending December 31 (in millions of U.S. dollars)	Amortization (expense) benefit of the fair value adjustment on	
	Acquired invested assets <sup>(1)</sup>	Assumed long-term debt <sup>(2)</sup>
Third quarter of 2018	\$ (60)	\$ 6
Fourth quarter of 2018	(55)	5
2019	(220)	21
2020	(200)	21
2021	(135)	21
2022	—	21
2023	—	21
<b>Total</b>	<b>\$ (670)</b>	<b>\$ 116</b>

(1) Recorded as a reduction to Net investment income in the Consolidated statements of operations.

(2) Recorded as a reduction to Interest expense in the Consolidated statements of operations.

The estimate of amortization expense of the fair value adjustment on acquired invested assets could vary materially based on current market conditions, bond calls, overall duration of the acquired investment portfolio, and foreign exchange.

## Interest Expense

The following table presents the estimated interest expense for the remainder of 2018 based on our existing debt obligations as well as fees based on our expected usage of certain facilities including letters of credit, notional pools, collateral fees, and repurchase agreements. For more information on our notional pools program, refer to Note 1 f) Cash of our 2017 Form 10-K.

(in millions of U.S. dollars)	Estimated Interest Expense				
	First Quarter 2018	Second Quarter 2018	Third Quarter 2018	Fourth Quarter 2018	Full Year 2018
Fixed interest expense based on outstanding debt	\$ 140	\$ 131	\$ 125	\$ 124	\$ 520
Variable interest expense based on expected usage	29	46	47	47	169
Adjusted interest expense	\$ 169	\$ 177	\$ 172	\$ 171	\$ 689
Amortization of the fair value of debt related to the Chubb Corp acquisition	(12)	(10)	(6)	(5)	(33)
Total interest expense, including amortization of the fair value of debt	\$ 157	\$ 167	\$ 166	\$ 166	\$ 656

Adjusted interest expense increased \$8 million compared to the first quarter of 2018, and increased \$11 million from our previous projection driven by higher than expected variable interest expense due principally to the notional pools and, to a lesser extent, higher fees on collateral and other credit facilities.

(in millions of U.S. dollars)	Actual Interest Expense				
	First Quarter 2017	Second Quarter 2017	Third Quarter 2017	Fourth Quarter 2017	Full Year 2017
Fixed interest expense based on outstanding debt	\$ 147	\$ 139	\$ 137	\$ 137	\$ 560
Variable interest expense	19	21	25	31	96
Adjusted interest expense	\$ 166	\$ 160	\$ 162	\$ 168	\$ 656
Amortization of the fair value of debt related to the Chubb Corp acquisition	(12)	(13)	(12)	(12)	(49)
Total interest expense, including amortization of the fair value of debt	\$ 154	\$ 147	\$ 150	\$ 156	\$ 607

The estimated fixed interest expense, at current foreign currency exchange rates, is based on outstanding debt obligations during the period:

- We redeemed the \$1.0 billion unsecured junior subordinated capital securities on April 6, 2018. No interest expense was considered for this debt after April 6, 2018.
- We redeemed the \$600 million 5.75 percent senior notes on May 15, 2018. No interest expense was considered for this debt after May 15, 2018.
- We plan to redeem the \$100 million 6.6 percent senior notes on August 15, 2018. No interest expense was considered for this debt after August 15, 2018.

The estimated variable interest expense is based on expected usage and interest rates and may fluctuate. These interest expenses include: notional pools interest expense and fees on collateral, repurchase agreements and credit facilities.

## Net Investment Income

(in millions of U.S. dollars)	Three Months Ended		Six Months Ended	
	June 30		June 30	
	2018	2017	2018	2017
Fixed maturities	\$ 778	\$ 741	\$ 1,550	\$ 1,471
Short-term investments	21	14	41	26
Other interest income	37	17	65	31
Equity securities	11	13	19	22
Other investments	24	24	43	43
Gross investment income <sup>(1)</sup>	871	809	1,718	1,593
Investment expenses	(43)	(39)	(84)	(78)
Net investment income <sup>(1)</sup>	\$ 828	\$ 770	\$ 1,634	\$ 1,515
<sup>(1)</sup> Includes amortization expense related to fair value adjustment of acquired invested assets related to the Chubb Corp acquisition	\$ (62)	\$ (85)	\$ (133)	\$ (176)

Other interest income includes interest earned from operating cash held outside the investment portfolio and also cash held in our global multi-currency notional cash pooling programs. Other interest income fluctuates based on changing interest rates and cash balances.

Net investment income is influenced by a number of factors including the amounts and timing of inward and outward cash flows, the level of interest rates, and changes in overall asset allocation. Net investment income increased 7.4 percent and 7.8 percent for the three and six months ended June 30, 2018, respectively, principally reflecting a higher average invested asset base and higher earnings on both short-term investments and other interest income.

Our average yield on invested assets, calculated excluding amortization expense related to fair value adjustment, was 3.5 percent for both the three and six months ended June 30, 2018, compared to 3.4 percent for the prior year periods, principally reflecting the yield on our fixed maturities. This compares to the average market yield, which represents the weighted average yield to maturity of our fixed income portfolio based on market prices of the holdings throughout the period, of 3.4 percent and 2.7 percent at June 30, 2018 and 2017, respectively.

## Net Realized and Unrealized Gains (Losses)

We take a long-term view with our investment strategy, and our investment managers manage our investment portfolio to maximize total return within certain specific guidelines designed to minimize risk. The majority of our investment portfolio is available for sale and reported at fair value. Our held to maturity investment portfolio is reported at amortized cost.

The effect of market movements on our fixed maturities portfolio impacts Net income (through Net realized gains (losses)) when securities are sold or when we record an Other-than-temporary impairment (OTTI) charge in Net income. For a further discussion related to how we assess OTTI for our fixed maturities, including credit-related OTTI, and the related impact on Net income, refer to Note 2 b) to the Consolidated Financial Statements. Effective January 1, 2018, we adopted new accounting guidance that requires the effect of changes in fair value of equity securities and cost-method private equity securities to be recognized immediately in net income (through realized gains (losses)). Additionally, Net income is impacted through the reporting of changes in the fair value of derivatives, including financial futures, options, swaps, and GLB reinsurance. Changes in unrealized appreciation and depreciation on available for sale securities, resulting from the revaluation of securities held, changes in cumulative foreign currency translation adjustment, and unrealized postretirement benefit liability adjustment, are reported as separate components of Accumulated other comprehensive income in Shareholders' equity in the Consolidated balance sheets.

The following table presents our net realized and unrealized gains (losses):

(in millions of U.S. dollars)	Three Months Ended June 30, 2018			Three Months Ended June 30, 2017		
	Net Realized Gains (Losses)	Net Unrealized Gains (Losses)	Net Impact	Net Realized Gains (Losses)	Net Unrealized Gains (Losses)	Net Impact
Fixed maturities	\$ (81)	\$ (497)	\$ (578)	\$ 23	\$ 423	\$ 446
Fixed income derivatives	24	—	24	(16)	—	(16)
Public equity	5	—	5	2	15	17
Private equity	—	—	—	(1)	(4)	(5)
Mark-to-market on public and private equity	(18)	—	(18)	—	—	—
Total investment portfolio <sup>(1)</sup>	(70)	(497)	(567)	8	434	442
Variable annuity reinsurance derivative transactions, net of applicable hedges	(3)	—	(3)	80	—	80
Other derivatives	8	—	8	(1)	—	(1)
Foreign exchange	140	(574)	(434)	14	102	116
Other	(57)	(17)	(74)	—	(35)	(35)
Net gains (losses) before tax	\$ 18	\$ (1,088)	\$ (1,070)	\$ 101	\$ 501	\$ 602

(1) For the three months ended June 30, 2018, other-than-temporary impairments in Net realized gains (losses) included \$4 million for fixed maturities. For the three months ended June 30, 2017, other-than-temporary impairments in Net realized gains (losses) included \$4 million for fixed maturities, \$3 million for public equity, and \$1 million for private equity.

(in millions of U.S. dollars)	Six Months Ended June 30, 2018			Six Months Ended June 30, 2017		
	Net Realized Gains (Losses)	Net Unrealized Gains (Losses)	Net Impact	Net Realized Gains (Losses)	Net Unrealized Gains (Losses)	Net Impact
Fixed maturities	\$ (104)	\$ (1,708)	\$ (1,812)	\$ 11	\$ 679	\$ 690
Fixed income derivatives	41	—	41	(10)	—	(10)
Public equity	15	—	15	6	43	49
Private equity	—	—	—	(8)	27	19
Mark-to-market on public and private equity	(10)	—	(10)	—	—	—
Total investment portfolio <sup>(1)</sup>	(58)	(1,708)	(1,766)	(1)	749	748
Variable annuity reinsurance derivative transactions, net of applicable hedges	57	—	57	99	—	99
Other derivatives	10	—	10	1	—	1
Foreign exchange	63	(177)	(114)	(5)	236	231
Other	(56)	(40)	(96)	—	(55)	(55)
Net gains (losses) before tax	\$ 16	\$ (1,925)	\$ (1,909)	\$ 94	\$ 930	\$ 1,024

(1) For the six months ended June 30, 2018, other-than-temporary impairments in Net realized gains (losses) included \$5 million for fixed maturities. For the six months ended June 30, 2017, other-than-temporary impairments in Net realized gains (losses) included \$10 million for fixed maturities, \$8 million for public equity, and \$9 million for private equity.

Other net realized gains (losses) for the three and six months ended June 30, 2018, included a \$36 million loss from the extinguishment of debt as discussed in Note 5 to the Consolidated Financial Statements and a \$22 million loss related to lease impairments.

The variable annuity reinsurance derivative transactions resulted in realized gains (losses) of \$(3) million and \$57 million for the three and six months ended June 30, 2018, respectively, reflecting a net decrease in the fair value of GLB liabilities of \$41 million and \$79 million, respectively. The decrease in the fair value of GLB liabilities was primarily due to rising interest rates and higher equity market levels. In addition, we maintain positions in derivative instruments that decrease in fair value when

the S&P 500 index increases. There were realized losses of \$44 million and \$22 million for the three and six months ended June 30, 2018, respectively, related to these derivative instruments.

The variable annuity reinsurance derivative transactions resulted in realized gains of \$80 million and \$99 million for the three and six months ended June 30, 2017, respectively, reflecting a net decrease in the fair value of GLB liabilities of \$118 million and \$211 million, respectively. The decrease in fair value of GLB liabilities was primarily due to the impact of updating aspects of our valuation model relating to interest rates and higher global equity market levels, partially offset by declining rates. In addition, we maintain positions in derivative instruments that decrease in fair value when the S&P 500 index increases. There were realized losses of \$38 million and \$112 million for the three and six months ended June 30, 2017, respectively, related to these derivative instruments.

## Investments

Our investment portfolio is invested primarily in publicly traded, investment grade, fixed income securities with an average credit quality of A/Aa as rated by the independent investment rating services Standard and Poor's (S&P)/Moody's Investors Service (Moody's). The portfolio is externally managed by independent, professional investment managers and is broadly diversified across geographies, sectors, and issuers. Other investments principally comprise direct investments, investment funds, and limited partnerships. We hold no collateralized debt obligations in our investment portfolio, and we provide no credit default protection. We have long-standing global credit limits for our entire portfolio across the organization. Exposures are aggregated, monitored, and actively managed by our Global Credit Committee, comprising senior executives, including our Chief Financial Officer, our Chief Risk Officer, our Chief Investment Officer, and our Treasurer. We also have well-established, strict contractual investment rules requiring managers to maintain highly diversified exposures to individual issuers and closely monitor investment manager compliance with portfolio guidelines.

The average duration of our fixed income securities, including the effect of options and swaps, was 4.2 years at both June 30, 2018 and December 31, 2017. We estimate that a 100 basis point (bps) increase in interest rates would reduce the valuation of our fixed income portfolio by approximately \$4.0 billion at June 30, 2018.

The following table shows the fair value and cost/amortized cost of our invested assets:

(in millions of U.S. dollars)	June 30, 2018		December 31, 2017	
	Fair Value	Cost/Amortized Cost	Fair Value	Cost/Amortized Cost
Fixed maturities available for sale	\$ 77,963	\$ 78,546	\$ 78,939	\$ 77,835
Fixed maturities held to maturity	13,665	13,860	14,474	14,335
Short-term investments	3,171	3,171	3,561	3,561
	94,799	95,577	96,974	95,731
Equity securities <sup>(1)</sup>	933	933	937	737
Other investments <sup>(1)</sup>	5,259	5,259	4,672	4,417
<b>Total investments</b>	<b>\$ 100,991</b>	<b>\$ 101,769</b>	<b>\$ 102,583</b>	<b>\$ 100,885</b>

<sup>(1)</sup> Effective Q1 2018, we adopted new accounting guidance that requires any changes in fair value of equity securities and other investments that are accounted for under the cost-method to be recognized immediately in net income. Therefore, the amortized cost of these investments is equal to their fair value at June 30, 2018.

The fair value of our total investments decreased \$1.6 billion during the six months ended June 30, 2018, primarily due to unrealized depreciation, the payment of dividends on our Common Shares, share repurchases, and unfavorable foreign currency movement. This decrease was partially offset by the investing of operating cash flows and the investing of net proceeds from the debt issuance, net of debt repayment.

The following tables present the market value of our fixed maturities and short-term investments at June 30, 2018 and December 31, 2017. The first table lists investments according to type and second according to S&P credit rating:

(in millions of U.S. dollars, except for percentages)	June 30, 2018		December 31, 2017	
	Market Value	% of Total	Market Value	% of Total
Treasury	\$ 4,246	4%	\$ 4,049	4%
Agency	651	1%	564	1%
Corporate and asset-backed securities	27,150	29%	27,215	28%
Mortgage-backed securities	18,068	19%	18,032	19%
Municipal	17,827	19%	20,766	21%
Non-U.S.	23,686	25%	22,787	23%
Short-term investments	3,171	3%	3,561	4%
<b>Total</b>	<b>\$ 94,799</b>	<b>100%</b>	<b>\$ 96,974</b>	<b>100%</b>
AAA	\$ 14,952	16%	\$ 15,512	16%
AA	36,292	38%	37,407	39%
A	17,735	19%	18,369	19%
BBB	12,473	13%	12,377	13%
BB	7,788	8%	7,941	8%
B	5,356	6%	5,135	5%
Other	203	—	233	—
<b>Total</b>	<b>\$ 94,799</b>	<b>100%</b>	<b>\$ 96,974</b>	<b>100%</b>

#### Corporate and asset-backed securities

The following table presents our 10 largest global exposures to corporate bonds by market value at June 30, 2018 :

(in millions of U.S. dollars)	Market Value
Wells Fargo & Co	\$ 535
AT&T Inc	455
JP Morgan Chase & Co	411
Goldman Sachs Group Inc	382
Anheuser-Busch InBev NV	362
Verizon Communications Inc	330
Bank of America Corp	321
HSBC Holdings Plc	303
Morgan Stanley	302
General Electric Co	280

#### Mortgage-backed securities

June 30, 2018 (in millions of U.S. dollars)	S&P Credit Rating					Market Value	Amortized Cost
	AAA	AA	A	BBB	BB and below	Total	Total
Agency residential mortgage-backed (RMBS)	\$ —	\$ 14,688	\$ —	\$ —	\$ —	\$ 14,688	\$ 15,046
Non-agency RMBS	27	47	73	28	23	198	197
Commercial mortgage-backed	2,871	214	97	—	—	3,182	3,250
<b>Total mortgage-backed securities</b>	<b>\$ 2,898</b>	<b>\$ 14,949</b>	<b>\$ 170</b>	<b>\$ 28</b>	<b>\$ 23</b>	<b>\$ 18,068</b>	<b>\$ 18,493</b>

**Municipal**

As part of our overall investment strategy, we may invest in states, municipalities, and other political subdivisions fixed maturity securities (Municipal). We apply the same investment selection process described previously to our Municipal investments. The portfolio is highly diversified primarily in state general obligation bonds and essential service revenue bonds including education and utilities (water, power, and sewers).

**Non-U.S.**

Our exposure to the Euro results primarily from Chubb European Group Limited which is headquartered in London and offers a broad range of coverages throughout the European Union, Central, and Eastern Europe. Chubb primarily invests in Euro denominated investments to support its local currency insurance obligations and required capital levels. Chubb's local currency investment portfolios have strict contractual investment guidelines requiring managers to maintain a high quality and diversified portfolio to both sector and individual issuers. Investment portfolios are monitored daily to ensure investment manager compliance with portfolio guidelines.

Our non-U.S. investment grade fixed income portfolios are currency-matched with the insurance liabilities of our non-U.S. operations. The average credit quality of our non-U.S. fixed income securities is A and 53 percent of our holdings are rated AAA or guaranteed by governments or quasi-government agencies. Within the context of these investment portfolios, our government and corporate bond holdings are highly diversified across industries and geographies. Issuer limits are based on credit rating (AA— two percent, A— one percent, BBB— 0.5 percent of the total portfolio) and are monitored daily via an internal compliance system. Because of this investment approach, we do not have a direct exposure to troubled sovereign borrowers in Europe. We manage our indirect exposure using the same credit rating based investment approach. Accordingly, we do not believe our indirect exposure is material.

The following table summarizes the market value and amortized cost of our non-U.S. fixed income portfolio by country/sovereign for non-U.S. government securities at June 30, 2018 :

(in millions of U.S. dollars)	Market Value	Amortized Cost
United Kingdom	\$ 1,360	\$ 1,347
Republic of Korea	1,091	1,019
Canada	975	989
Federative Republic of Brazil	713	716
Province of Ontario	637	644
United Mexican States	518	527
Federal Republic of Germany	512	503
Province of Quebec	502	508
Kingdom of Thailand	435	417
French Republic	314	295
Other Non-U.S. Government Securities (1)	4,356	4,327
<b>Total</b>	<b>\$ 11,413</b>	<b>\$ 11,292</b>

(1) There are no investments in Portugal, Ireland, Italy, Greece or Spain.

The following table summarizes the market value and amortized cost of our non-U.S. fixed income portfolio by country/sovereign for non-U.S. corporate securities at June 30, 2018 :

(in millions of U.S. dollars)	Market Value	Amortized Cost
United Kingdom	\$ 2,129	\$ 2,112
Canada	1,510	1,522
United States (1)	1,048	1,054
France	947	945
Australia	840	834
Netherlands	638	636
Germany	613	605
Switzerland	457	459
Japan	448	452
Sweden	347	346
Other Non-U.S. Corporate Securities	3,296	3,306
<b>Total</b>	<b>\$ 12,273</b>	<b>\$ 12,271</b>

(1) The countries that are listed in the non-U.S. corporate fixed income portfolio above represent the ultimate parent company's country of risk. Non-U.S. corporate securities could be issued by foreign subsidiaries of U.S. corporations.

#### Below-investment grade corporate fixed income portfolio

Below-investment grade securities have different characteristics than investment grade corporate debt securities. Risk of loss from default by the borrower is greater with below-investment grade securities. Below-investment grade securities are generally unsecured and are often subordinated to other creditors of the issuer. Also, issuers of below-investment grade securities usually have higher levels of debt and are more sensitive to adverse economic conditions, such as recession or increasing interest rates, than investment grade issuers. At June 30, 2018, our corporate fixed income investment portfolio included below-investment grade and non-rated securities which, in total, comprised approximately 12 percent of our fixed income portfolio. Our below-investment grade and non-rated portfolio includes over 1,200 issuers, with the greatest single exposure being \$158 million.

We manage high-yield bonds as a distinct and separate asset class from investment grade bonds. The allocation to high-yield bonds is explicitly set by internal management and is targeted to securities in the upper tier of credit quality (BB/B). Our minimum rating for initial purchase is BB/B. Ten external investment managers are responsible for high-yield security selection and portfolio construction. Our high-yield managers have a conservative approach to credit selection and very low historical default experience. Holdings are highly diversified across industries and generally subject to a 1.5 percent issuer limit as a percentage of high-yield allocation. We monitor position limits daily through an internal compliance system. Derivative and structured securities (e.g., credit default swaps and collateralized loan obligations) are not permitted in the high-yield portfolio.

#### Critical Accounting Estimates

As of June 30, 2018, there were no material changes to our critical accounting estimates. For a full discussion of our critical accounting estimates, refer to Item 7 in our 2017 Form 10-K.

#### Reinsurance recoverable on ceded reinsurance

(in millions of U.S. dollars)	June 30 2018	December 31 2017
Reinsurance recoverable on unpaid losses and loss expenses <sup>(1)</sup>	\$ 13,735	\$ 14,014
Reinsurance recoverable on paid losses and loss expenses <sup>(1)</sup>	1,057	1,020
Reinsurance recoverable on losses and loss expenses <sup>(1)</sup>	\$ 14,792	\$ 15,034
Reinsurance recoverable on policy benefits <sup>(2)</sup>	\$ 204	\$ 184

(1) Net of provision for uncollectible reinsurance on P&C reserves of \$319 million and \$321 million at June 30, 2018 and December 31, 2017, respectively.

(2) Net of provision for uncollectible reinsurance on policy benefits of \$4 million at both June 30, 2018 and December 31, 2017.

We evaluate the financial condition of our reinsurers and potential reinsurers on a regular basis and also monitor concentrations of credit risk with reinsurers. The provision for uncollectible reinsurance is required principally due to the potential failure of reinsurers to indemnify us, primarily because of disputes under reinsurance contracts and insolvencies. The provision for uncollectible reinsurance is based on a default analysis applied to gross reinsurance recoverables, net of approximately \$ 3.7 billion of collateral at both June 30, 2018 and December 31, 2017 .

The decrease in reinsurance recoverable on losses and loss expenses was primarily due to collections on catastrophe losses related to the 2017 catastrophic events, partially offset by additional reinsurance recoverable related to catastrophe losses in 2018.

### Unpaid losses and loss expenses

As an insurance and reinsurance company, we are required by applicable laws and regulations and GAAP to establish loss and loss expense reserves for the estimated unpaid portion of the ultimate liability for losses and loss expenses under the terms of our policies and agreements with our insured and reinsured customers. With the exception of certain structured settlements, for which the timing and amount of future claim payments are reliably determinable, and certain reserves for unsettled claims that are discounted in statutory filings, our loss reserves are not discounted for the time value of money.

The following table presents a roll-forward of our unpaid losses and loss expenses:

(in millions of U.S. dollars)	<b>Gross Losses</b>	<b>Reinsurance Recoverable <sup>(1)</sup></b>	<b>Net Losses</b>
Balance at December 31, 2017	\$ 63,179	\$ 14,014	\$ 49,165
Losses and loss expenses incurred	10,486	1,897	8,589
Losses and loss expenses paid	(10,752)	(2,137)	(8,615)
Foreign currency revaluation and other	(135)	(39)	(96)
<b>Balance at June 30, 2018</b>	<b>\$ 62,778</b>	<b>\$ 13,735</b>	<b>\$ 49,043</b>

(1) Net of provision for uncollectible reinsurance of \$319 million and \$321 million at June 30, 2018 and December 31, 2017 , respectively.

The estimate of the liabilities includes provisions for claims that have been reported but are unpaid at the balance sheet date (case reserves) and for obligations on claims that have been incurred but not reported (IBNR) at the balance sheet date. IBNR may also include provisions to account for the possibility that reported claims may settle for amounts that differ from the established case reserves. Loss reserves also include an estimate of expenses associated with processing and settling unpaid claims (loss expenses).

Refer to Note 4 to the Consolidated Financial Statements for a discussion on the changes in the loss reserves.

### Asbestos and Environmental (A&E)

There was no significant A&E reserve activity during the three and six months ended June 30, 2018 . A&E reserves are included in Corporate. Refer to our 2017 Form 10-K for further information on our A&E exposures.

### Fair value measurements

Accounting 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 (Level 1 inputs) and the lowest priority to unobservable data (Level 3 inputs). Level 2 includes inputs, other than quoted prices within Level 1, that are observable for assets or liabilities either directly or indirectly. Refer to Note 3 to the Consolidated Financial Statements for information on our fair value measurements.

## Catastrophe management

We actively monitor and manage our catastrophe risk accumulation around the world. The table below presents our modeled pre-tax estimates of natural catastrophe probable maximum loss (PML), net of reinsurance, for Worldwide, U.S. hurricane and California earthquake events as of June 30, 2018. For example, according to the model, for the 1-in-100 return period scenario, there is a one percent chance that our losses incurred in any year from U.S. hurricane events could be in excess of \$2,822 million (or 5.5 percent of our total shareholders' equity at June 30, 2018).

(in millions of U.S. dollars, except for percentages)	Modeled Net PML					
	Worldwide <sup>(1)</sup>		U.S. Hurricane		California Earthquake	
	Annual Aggregate		Annual Aggregate		Single Occurrence	
	Chubb	% of Total Shareholders' Equity	Chubb	% of Total Shareholders' Equity	Chubb	% of Total Shareholders' Equity
1-in-10	\$ 1,931	3.8%	\$ 1,112	2.2%	\$ 143	0.3%
1-in-100	\$ 4,040	7.9%	\$ 2,822	5.5%	\$ 1,381	2.7%
1-in-250	\$ 6,540	12.8%	\$ 5,159	10.1%	\$ 1,517	3.0%

(1) Worldwide losses are comprised of losses arising only from hurricanes, typhoons, convective storms and earthquakes and do not include "non-modeled" perils such as wildfire and flood.

The above modeled loss information at June 30, 2018 reflects our in-force portfolio at April 1, 2018. The June 30, 2018 modeled loss information reflects the April 1, 2018 reinsurance program (see Natural Catastrophe Property Reinsurance Program section) as well as inuring reinsurance protection coverages. Included in the loss estimates for hurricane and earthquake are estimates for losses arising from storm-surge and fire-following perils, respectively.

The above estimates of Chubb's loss profile are inherently uncertain owing to key assumptions. First, while the use of third-party catastrophe modeling packages to simulate potential hurricane and earthquake losses is prevalent within the insurance industry, the models are reliant upon significant meteorology, seismology, and engineering assumptions to estimate catastrophe losses. In particular, modeled catastrophe events are not always a representation of actual events and ensuing additional loss potential. Second, there is no universal standard in the preparation of insured data for use in the models, the running of the modeling software and interpretation of loss output. These loss estimates do not represent our potential maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates.

## Natural Catastrophe Property Reinsurance Program

Chubb's core property catastrophe reinsurance program provides protection against natural catastrophes impacting its primary property operations (i.e., excluding our Global Reinsurance and Life Insurance segments).

We regularly review our reinsurance protection and corresponding property catastrophe exposures. This may or may not lead to the purchase of additional reinsurance prior to a program's renewal date. In addition, prior to each renewal date, we consider how much, if any, coverage we intend to buy and we may make material changes to the current structure in light of various factors, including modeled PML assessment at various return periods, reinsurance pricing, our risk tolerance and exposures, and various other structuring considerations.

Chubb renewed its Global Property Catastrophe Reinsurance Program for our North American and International operations effective April 1, 2018 through March 31, 2019, with no significant change in coverage from the expiring program. The program consists of three layers in excess of losses retained by Chubb. In addition, Chubb also renewed its terrorism coverage (excluding nuclear, biological, chemical and radiation coverage, with an inclusion of coverage for biological and chemical coverage for personal lines) for the United States from April 1, 2018 through March 31, 2019 with the same limits and retention and percentage placed except that the majority of terrorism coverage is on an aggregate basis above our retentions without a reinstatement.

Loss Location	Layer of Loss	Comments	Notes
United States (excluding Alaska and Hawaii)	\$0 million – \$1.0 billion	Losses retained by Chubb	(a)
United States (excluding Alaska and Hawaii)	\$1.0 billion – \$1.25 billion	All natural perils and terrorism	(b)
United States (excluding Alaska and Hawaii)	\$1.25 billion – \$2.0 billion	All natural perils and terrorism	(c)
United States (excluding Alaska and Hawaii)	\$2.0 billion – \$3.5 billion	All natural perils and terrorism	(d)
International (including Alaska and Hawaii)	\$0 million – \$175 million	Losses retained by Chubb	(a)
International (including Alaska and Hawaii)	\$175 million – \$925 million	All natural perils and terrorism	(c)
Alaska, Hawaii, and Canada	\$925 million – \$2.425 billion	All natural perils and terrorism	(d)

- (a) Ultimate retention will depend upon the nature of the loss and the interplay between the underlying per risk programs and certain other catastrophe programs purchased by individual business units. These other catastrophe programs have the potential to reduce our effective retention below the stated levels.
- (b) These coverages are 20 percent placed with Reinsurers.
- (c) These coverages are both part of the same Second layer within the Global Catastrophe Program and are 100 percent placed with Reinsurers. As such, it may be exhausted in one region and not available in the other.
- (d) These coverages are both part of the same Third layer within the Global Catastrophe Program and are 100 percent placed with Reinsurers. As such, it may be exhausted in one region and not available in the other.

Chubb also has a property catastrophe bond in place (assumed as part of the Chubb Corp acquisition) that offers additional natural catastrophe protection for certain parts of the portfolio. The geographic scope of this coverage is from Virginia through Maine. The East Lane VI 2015 bond currently provides \$250 million of coverage as part of a \$430 million layer in excess of \$2,014 million retention through March 13, 2020.

## Crop Insurance

We are, and have been since the 1980s, one of the leading writers of crop insurance in the U.S. and have conducted that business through a managing general agent subsidiary of Rain and Hail. We provide protection throughout the U.S. on a variety of crops and are therefore geographically diversified, which reduces the risk of exposure to a single event or a heavy accumulation of losses in any one region. Our crop insurance business comprises two components – Multiple Peril Crop Insurance (MPCI) and crop-hail insurance.

The MPCI program is offered in conjunction with the U.S. Department of Agriculture (USDA). The policies cover revenue shortfalls or production losses due to natural causes such as drought, excessive moisture, hail, wind, frost, insects, and disease. Generally, policies have deductibles ranging from 10 percent to 50 percent of the insured's risk. The USDA's Risk Management Agency (RMA) sets the policy terms and conditions, rates and forms, and is also responsible for setting compliance standards. As a participating company, we report all details of policies underwritten to the RMA and are party to a Standard Reinsurance Agreement (SRA). The SRA sets out the relationship between private insurance companies and the Federal Crop Insurance Corporation (FCIC) concerning the terms and conditions regarding the risks each will bear including the pro-rata and state stop-loss provisions which allows companies to limit the exposure of any one state or group of states on their underwriting results. In addition to the pro-rata and excess of loss reinsurance protections inherent in the SRA, we also purchase third-party proportional and stop-loss reinsurance for our MPCI business to reduce our exposure. We may also enter into crop derivative contracts to further manage our risk exposure.

Each year the RMA issues a final SRA for the subsequent reinsurance year. In June 2018, the RMA released the 2019 SRA which establishes the terms and conditions for the 2019 reinsurance year (i.e., July 1, 2018 through June 30, 2019) that replaced the 2018 SRA. There were no significant changes in the terms and conditions, and therefore the new SRA does not impact Chubb's outlook on the crop program relative to 2019.

On the MPCI business, we recognize net premiums written as soon as estimable, which is generally when we receive acreage reports from the policyholders on the various crops throughout the U.S. This allows us to best determine the premium

associated with the liability that is being planted. The MPCII program has specific timeframes as to when producers must report acreage to us and in certain cases, the reporting occurs after the close of the respective reinsurance year. Once the net premium written has been recorded, the premium is then earned over the growing season for the crops. A majority of the crops that are covered in the program are typically subject to the SRA in effect at the beginning of the year. Given the major crops covered in the program, we typically see a substantial written and earned premium impact in the second and third quarters.

The pricing of MPCII premium is determined using a number of factors including commodity prices and related volatility. For instance, in most states the pricing for the MPCII Revenue Product for corn includes a factor that is based on the average price in February of the Chicago Board of Trade December corn futures. To the extent that the corn commodity prices are higher in February than they were in the previous February, and all other factors are the same, the increase in corn prices will increase the corn premium year over year.

Our crop-hail program is a private offering. Premium is earned on the crop-hail program over the coverage period of the policy. Given the very short nature of the growing season, most crop-hail business is typically written in the second and third quarters with the earned premium also more heavily occurring during this time frame. We use industry data to develop our own rates and forms for the coverage offered. The policy primarily protects farmers against yield reduction caused by hail and/or fire, and related costs such as transit to storage. We offer various deductibles to allow the grower to partially self-insure for a reduced premium cost. We limit our crop-hail exposures through the use of township liability limits and third-party proportional and stop-loss reinsurance on our net retained hail business.

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## Liquidity

We anticipate that positive cash flows from operations (underwriting activities and investment income) should be sufficient to cover cash outflows under most loss scenarios for the near term. In addition to cash from operations, routine sales of investments, and financing arrangements, we have agreements with a third-party bank provider which implemented two international multi-currency notional cash pooling programs to enhance cash management efficiency during periods of short-term timing mismatches between expected inflows and outflows of cash by currency. The programs allow us to optimize investment income by avoiding portfolio disruption. Should the need arise, we generally have access to capital markets and an available \$1.0 billion letter of credit/revolver facility. At June 30, 2018, our LOC usage was \$357 million. Our access to funds under an existing credit facility is dependent on the ability of the banks that are a party to the facility to meet their funding commitments. Our existing credit facility has a remaining term expiring in October 2022 and requires that we maintain certain financial covenants, all of which we met at June 30, 2018. Should our existing credit provider experience financial difficulty, we may be required to replace credit sources, possibly in a difficult market. If we cannot obtain adequate capital or sources of credit on favorable terms, on a timely basis, or at all, our business, operating results, and financial condition could be adversely affected. To date, we have not experienced difficulty accessing our credit facility. Refer to "Credit Facilities" in our 2017 10-K for additional information.

The payment of dividends or other statutorily permissible distributions from our operating companies are subject to the laws and regulations applicable to each jurisdiction, as well as the need to maintain capital levels adequate to support the insurance and reinsurance operations, including financial strength ratings issued by independent rating agencies. During the six months ended June 30, 2018, we were able to meet all of our obligations, including the payments of dividends on our Common Shares, with our net cash flows.

We assess which subsidiaries to draw dividends from based on a number of factors. Considerations such as regulatory and legal restrictions as well as the subsidiary's financial condition are paramount to the dividend decision. Chubb Limited received dividends of \$75 million and \$450 million from its Bermuda subsidiaries during the six months ended June 30, 2018 and 2017, respectively.

The payment of any dividends from CGM or its subsidiaries is subject to applicable U.K. insurance laws and regulations. In addition, the release of funds by Syndicate 2488 to subsidiaries of CGM is subject to regulations promulgated by the Society of Lloyd's. The U.S. insurance subsidiaries of Chubb INA Holdings Inc. (Chubb INA) may pay dividends, without prior regulatory approval, subject to restrictions set out in state law of the subsidiary's domicile (or, if applicable, commercial domicile). Chubb INA's international subsidiaries are also subject to insurance laws and regulations particular to the countries in which the subsidiaries operate. These laws and regulations sometimes include restrictions that limit the amount of dividends payable without prior approval of regulatory insurance authorities. Chubb Limited received no dividends from CGM or Chubb INA during the six months ended June 30, 2018 and 2017. Debt issued by Chubb INA is serviced by statutorily permissible distributions

by Chubb INA's insurance subsidiaries to Chubb INA as well as other group resources. Chubb INA received dividends of \$3.0 billion and \$1.6 billion from its subsidiaries during the six months ended June 30, 2018 and 2017, respectively.

### Cash Flows

Our sources of liquidity include cash from operations, routine sales of investments, and financing arrangements. The following is a discussion of our cash flows for the six months ended June 30, 2018 and 2017 .

Operating cash flows were \$2.2 billion in the six months ended June 30, 2018 , compared to \$1.6 billion in the prior year period. The increase was due to higher premiums collected, net of higher catastrophe loss payments related to the 2017 catastrophe events, and lower taxes paid, principally due to timing of tax payments in the prior year.

Cash used for investing was \$1,260 million in the six months ended June 30, 2018 , compared to cash from investing of \$123 million in the prior year period. The current year included higher net private equity contributions of \$542 million. Additionally, the prior year included a higher level of repayments on available for sale securities. Cash used for financing was \$649 million in the six months ended June 30, 2018 , compared to \$1,443 million in the prior year period, a decrease in cash used for financing of \$794 million. The current year included net proceeds from the issuance of long-term debt (net of repayments) of \$271 million compared to the prior year which had repayments of \$500 million.

Both internal and external forces influence our financial condition, results of operations, and cash flows. Claim settlements, premium levels, and investment returns may be impacted by changing rates of inflation and other economic conditions. In many cases, significant periods of time, ranging up to several years or more, may lapse between the occurrence of an insured loss, the reporting of the loss to us, and the settlement of the liability for that loss.

In the current low interest rate environment, we use repurchase agreements as a low-cost funding alternative. At June 30, 2018 , there were \$ 1.4 billion in repurchase agreements outstanding with various maturities over the next 8 months.

### Capital Resources

Capital resources consist of funds deployed or available to be deployed to support our business operations.

	June 30	December 31
(in millions of U.S. dollars, except for ratios)	2018	2017
Short-term debt	\$ 600	\$ 1,013
Long-term debt	12,184	11,556
Total financial debt	12,784	12,569
Trust preferred securities	308	308
Total shareholders' equity	50,971	51,172
Total capitalization	\$ 64,063	\$ 64,049
Ratio of financial debt to total capitalization	20.0%	19.6%
Ratio of financial debt plus trust preferred securities to total capitalization	20.5%	20.1%

Repurchase agreements are excluded from the table above and are disclosed separately from short-term debt in the Consolidated balance sheets. The repurchase agreements are collateralized borrowings where we maintain the right and ability to redeem the collateral on short notice, unlike short-term debt which comprises the current maturities of our long-term debt instruments.

In March 2018, Chubb INA Holdings Inc.'s (Chubb INA) issued €900 million of 1.55 percent Euro denominated senior notes due March 2028 and €900 million of 2.5 percent Euro denominated senior notes due March 2038 (totaling \$2.2 billion based on the foreign exchange rate at the date of issuance).

Chubb INA's \$300 million of 5.8 percent senior notes due March 2018 and \$600 million of 5.75 percent senior notes due May 2018 were paid upon maturity. In addition, during April 2018, Chubb INA redeemed \$1.0 billion of 6.375 percent unsecured junior subordinated capital securities due to mature in April 2037 and recorded a loss of \$36 million from the extinguishment of debt, which is included in Net realized gains (losses) in the Consolidated statement of operations.

In June 2018, we reclassified \$499 million of the 5.9 percent senior notes (\$500 million par value due to mature in June 2019) from long-term debt to short-term debt in the Consolidated balance sheets. Refer to Note 5 to the Consolidated Financial Statements for additional details about the debt issued and debt redeemed.

For the six months ended June 30, 2018, we repurchased \$324 million of Common Shares in a series of open market transactions under the Board of Directors (Board) share repurchase authorization. At June 30, 2018, there were 16,281,700 Common Shares in treasury with a weighted average cost of \$125.26 per share. For the period July 1 through July 31, 2018, we repurchased 740,869 Common Shares for a total of \$100 million in a series of open market transactions. At July 31, 2018, \$576 million in share repurchase authorization remained through December 31, 2018.

We generally maintain the ability to issue certain classes of debt and equity securities via an unlimited Securities and Exchange Commission (SEC) shelf registration which is renewed every three years. This allows us capital market access for refinancing as well as for unforeseen or opportunistic capital needs. Our current shelf registration on file with the SEC expires in October 2018.

#### Dividends

We have paid dividends each quarter since we became a public company in 1993. Under Swiss law, dividends must be stated in Swiss francs though dividend payments are made by Chubb in U.S. dollars. Refer to Note 7 to the Consolidated Financial Statements for a discussion of our dividend methodology.

At our May 2018 annual general meeting, our shareholders approved an annual dividend for the following year of up to \$2.92 per share, or CHF 2.92 per share, calculated using the USD/CHF exchange rate as published in the Wall Street Journal on May 17, 2018, expected to be paid in four quarterly installments of \$0.73 per share after the general meeting by way of a distribution from capital contribution reserves, transferred to free reserves for payment. The Board will determine the record and payment dates at which the annual dividend may be paid until the date of the 2019 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion. The annual dividend approved in May 2018 represented an \$0.08 per share increase (\$0.02 per quarter) over the prior year dividend.

The following table represents dividends paid per Common Share to shareholders of record on each of the following dates:

Shareholders of record as of:	Dividends paid as of:	
December 29, 2017	January 19, 2018	\$0.71 (CHF 0.70)
March 29, 2018	April 20, 2018	\$0.71 (CHF 0.66)
June 22, 2018	July 13, 2018	\$0.73 (CHF 0.73)

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

Refer to Item 7A included in our 2017 Form 10-K.

#### Foreign currency management

As a global company, Chubb entities transact business in multiple currencies. Our policy is to generally match assets, liabilities and required capital for each individual jurisdiction in local currency, which would include the use of derivatives. We do not hedge our net asset non-U.S. dollar capital positions; however, we do consider hedging for planned cross border transactions. For an estimated impact of foreign currency movement on our net assets denominated in non-U.S. currencies, refer to Item 7A in our 2017 Form 10-K. This information will be updated and disclosed in interim filings if our net assets in non-U.S. currencies change materially from the December 31, 2017 balances disclosed in the 2017 Form 10-K.

#### Reinsurance of GMDB and GLB guarantees

Chubb views its variable annuity reinsurance business as having a similar risk profile to that of catastrophe reinsurance with the probability of long-term economic loss relatively small, at the time of pricing. Adverse changes in market factors and policyholder behavior will have an impact on both Life insurance underwriting income and net income. When evaluating these risks, we expect to be compensated for taking both the risk of a cumulative long-term economic net loss, as well as the short-term accounting variations caused by these market movements. Therefore, we evaluate this business in terms of its long-term economic risk and reward.

Net income is directly impacted by changes in benefit reserves calculated in connection with reinsurance of variable annuity guarantees, primarily GMDB and GLB. In addition, net income is directly impacted by changes in the fair value of the GLB liability (FVL), which is classified as a derivative for accounting purposes. The FVL established for a GLB reinsurance contract represents the difference between the fair value of the contract and the benefit reserves. Benefit reserves and FVL calculations are directly affected by market factors, including equity levels, interest rate levels, credit risk, and implied volatilities, as well as policyholder behaviors, such as annuitization and lapse rates, and policyholder mortality.

The tables below are estimates of the sensitivities to instantaneous changes in economic inputs (e.g., equity shock, interest rate shock etc.) or actuarial assumptions at June 30, 2018 of the FVL and of the fair value of specific derivative instruments held (hedge value) to partially offset the risk in the variable annuity guarantee reinsurance portfolio. The following assumptions should be considered when using the below tables:

- No changes to the benefit ratio used to establish benefit reserves at June 30, 2018 .
- Equity shocks impact all global equity markets equally
  - Our liabilities are sensitive to global equity markets in the following proportions: 75 percent— 85 percent U.S. equity, and 15 percent— 25 percent international equity.
  - Our current hedge portfolio is sensitive to global equity markets in the following proportions: 100 percent U.S. equity.
  - We would suggest using the S&P 500 index as a proxy for U.S. equity, and the MSCI EAFE index as a proxy for international equity.
- Interest rate shocks assume a parallel shift in the U.S. yield curve
  - Our liabilities are also sensitive to global interest rates at various points on the yield curve, mainly the U.S. Treasury curve in the following proportions: up to 10 percent short-term rates (maturing in less than 5 years), 25 percent— 35 percent medium-term rates (maturing between 5 years and 10 years, inclusive), and 60 percent— 70 percent long-term rates (maturing beyond 10 years).
  - A change in AA-rated credit spreads (AA-rated credit spreads are a proxy for both our own credit spreads and the credit spreads of the ceding insurers) impacts the rate used to discount cash flows in the fair value model.
- The hedge sensitivity is from June 30, 2018 market levels.
- The sensitivities are not directly additive because changes in one factor will affect the sensitivity to changes in other factors. The sensitivities do not scale linearly and may be proportionally greater for larger movements in the market factors. The sensitivities may also vary due to foreign exchange rate fluctuations. The calculation of the FVL is based on internal models that include assumptions regarding future policyholder behavior, including lapse, annuitization, and asset allocation. These assumptions impact both the absolute level of the FVL as well as the sensitivities to changes in market factors shown below. Actual sensitivity of our net income may differ from those disclosed in the tables below due to differences between short-term market movements and management judgment regarding the long-term assumptions implicit in our benefit ratios.
- In addition, the tables below do not reflect the expected quarterly run rate of net income generated by the variable annuity guarantee reinsurance portfolio if markets remain unchanged during the period. All else equal, if markets remain unchanged during the period, the Gross FVL will increase, resulting in a realized loss. The Gross FVL increases primarily because future premiums are lower by the amount collected in the quarter, and also because future claims are discounted for a shorter period. We refer to this increase in Gross FVL as “timing effect”. The unfavorable impact of timing effect on our Gross FVL in a quarter is not reflected in the sensitivity tables below. For this reason, when using the tables below to estimate the sensitivity of Gross FVL in the third quarter to various changes, it is necessary to assume an additional \$5 million to \$45 million increase in Gross FVL and realized losses. The impact to Net income is partially mitigated because this realized loss is partially offset by the positive quarterly run rate of Life insurance underwriting income generated by the variable annuity guarantee reinsurance portfolio if markets remain unchanged during the period. Note that both the timing effect and the quarterly run rate of Life insurance underwriting income change over time as the book ages.

**Interest Rate Shock**

(in millions of U.S. dollars)		Worldwide Equity Shock					
		+10%	Flat	-10%	-20%	-30%	-40%
<b>+100 bps</b>	(Increase)/decrease in Gross FVL	\$ 195	\$ 121	\$ 8	\$ (162)	\$ (365)	\$ (602)
	Increase/(decrease) in hedge value	(160)	—	160	320	480	640
	Increase/(decrease) in net income	\$ 35	\$ 121	\$ 168	\$ 158	\$ 115	\$ 38
<b>Flat</b>	(Increase)/decrease in Gross FVL	\$ 104	\$ —	\$ (164)	\$ (360)	\$ (592)	\$ (856)
	Increase/(decrease) in hedge value	(160)	—	160	320	480	640
	Increase/(decrease) in net income	\$ (56)	\$ —	\$ (4)	\$ (40)	\$ (112)	\$ (216)
<b>-100 bps</b>	(Increase)/decrease in Gross FVL	\$ (46)	\$ (205)	\$ (394)	\$ (616)	\$ (872)	\$ (1,155)
	Increase/(decrease) in hedge value	(160)	—	160	320	480	640
	Increase/(decrease) in net income	\$ (206)	\$ (205)	\$ (234)	\$ (296)	\$ (392)	\$ (515)

**Sensitivities to Other Economic Variables**

(in millions of U.S. dollars)		AA-rated Credit Spreads		Interest Rate Volatility		Equity Volatility	
		+100 bps	-100 bps	+2%	-2%	+2%	-2%
(Increase)/decrease in Gross FVL		\$ 48	\$ (56)	\$ —	\$ —	\$ (8)	\$ 6
Increase/(decrease) in hedge value		—	—	—	—	—	—
Increase/(decrease) in net income		\$ 48	\$ (56)	\$ —	\$ —	\$ (8)	\$ 6

**Sensitivities to Actuarial Assumptions**

(in millions of U.S. dollars)		Mortality			
		+20%	+10%	-10%	-20%
(Increase)/decrease in Gross FVL		\$ 17	\$ 8	\$ (9)	\$ (18)
Increase/(decrease) in hedge value		—	—	—	—
Increase/(decrease) in net income		\$ 17	\$ 8	\$ (9)	\$ (18)

(in millions of U.S. dollars)		Lapses			
		+50%	+25%	-25%	-50%
(Increase)/decrease in Gross FVL		\$ 59	\$ 31	\$ (41)	\$ (86)
Increase/(decrease) in hedge value		—	—	—	—
Increase/(decrease) in net income		\$ 59	\$ 31	\$ (41)	\$ (86)

(in millions of U.S. dollars)		Annuitization			
		+50%	+25%	-25%	-50%
(Increase)/decrease in Gross FVL		\$ (362)	\$ (192)	\$ 153	\$ 310
Increase/(decrease) in hedge value		—	—	—	—
Increase/(decrease) in net income		\$ (362)	\$ (192)	\$ 153	\$ 310

**ITEM 4. Controls and Procedures**

Chubb's management, with the participation of Chubb's Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of Chubb's disclosure controls and procedures as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934 as of June 30, 2018. Based upon that evaluation, Chubb's Chief Executive Officer and Chief Financial Officer concluded that Chubb's disclosure controls and procedures are effective in allowing information required to be disclosed in reports filed under the Securities and Exchange Act of 1934 to be recorded, processed, summarized, and reported within time periods specified in the rules and forms of the SEC, and that such information is accumulated and communicated to Chubb's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

In 2016, Chubb completed the acquisition of The Chubb Corporation. During the three months ended June 30, 2018, we continued to integrate the information technology environments of the two companies.

There were no other changes to Chubb's internal controls over financial reporting during the three months ended June 30, 2018 that have materially affected, or are reasonably likely to materially affect, Chubb's internal controls over financial reporting.

**PART II OTHER INFORMATION****ITEM 1. Legal Proceedings**

The information required with respect to this item is included in Note 6 g) to the Consolidated Financial Statements which is hereby incorporated by reference.

**ITEM 1A. Risk Factors**

Refer to "Risk Factors" under Item 1A of Part I of our 2017 Form 10-K. There have been no material changes to the risk factors disclosed in Item 1A of Part I of our 2017 Form 10-K.

**ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds and Issuer Repurchases of Equity Securities****Issuer's Repurchases of Equity Securities**

The following table provides information with respect to purchases by Chubb of its Common Shares during the three months ended June 30, 2018 :

Period	Total Number of Shares Purchased <sup>(1)</sup>	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan <sup>(2)</sup>	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan <sup>(3)</sup>
April 1 through April 30	2,958	\$ 139.30	—	\$ 1.0 billion
May 1 through May 31	2,015,058	\$ 133.80	1,896,737	\$ 746 million
June 1 through June 30	551,339	\$ 129.04	547,118	\$ 676 million
<b>Total</b>	<b>2,569,355</b>	<b>\$ 132.78</b>	<b>2,443,855</b>	

(1) This column represents open market share repurchases and the surrender to Chubb of Common Shares to satisfy tax withholding obligations in connection with the vesting of restricted stock issued to employees and the exercising of options by employees.

(2) The aggregate value of shares repurchased in the three months ended June 30, 2018 as part of the publicly announced plan was \$324 million.

(3) Refer to Note 7 to the Consolidated Financial Statements for more information on the Chubb Limited securities repurchase authorization. In December 2017, our Board authorized the repurchase of up to \$1.0 billion of Chubb's Common Shares from January 1, 2018 through December 31, 2018. For the period July 1, 2018 through July 31, 2018, we repurchased 740,869 Common Shares for a total of \$100 million in a series of open market transactions. At July 31, 2018, \$576 million in share repurchase authorization remained through December 31, 2018.

## **ITEM 5. Other Information**

### **Disclosure of Certain Activities Under Section 13(r) of the Securities Exchange Act of 1934**

Section 13(r) of the Securities Exchange Act of 1934, as amended, requires an issuer to disclose in its annual or quarterly reports whether it or an affiliate knowingly engaged in certain activities described in that section, including certain activities related to Iran during the period covered by the report.

Chubb, through certain of its non-U.S. subsidiaries, provides insurance and reinsurance coverage relating to marine risks for policyholders with global operations. As a result of the modification of U.S. and European sanctions on Iran in 2016, several marine policyholders have informed us that they are shipping cargo to and from Iran, including transporting crude oil, petrochemicals and refined petroleum products. As the activities of our insureds and reinsureds are permitted under applicable laws and regulations, including U. S. Department of Treasury General License H, Chubb intends for its non-U.S. subsidiaries to continue providing such coverage to its insureds and reinsureds to the extent permitted by applicable law. Since these policies insure multiple voyages and fleets containing multiple ships, we are unable to attribute gross revenues and net profits from such marine policies to these activities involving Iran.

**ITEM 6. Exhibits**

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
<a href="#">3.1</a>	<a href="#">Articles of Association of the Company, as amended</a>	8-K	3.1	May 18, 2018	
<a href="#">3.2</a>	<a href="#">Organizational Regulations of the Company, as amended</a>	8-K	3.1	November 21, 2016	
<a href="#">4.1</a>	<a href="#">Articles of Association of the Company, as amended</a>	8-K	4.1	May 18, 2018	
<a href="#">4.2</a>	<a href="#">Organizational Regulations of the Company, as amended</a>	8-K	3.1	November 21, 2016	
<a href="#">31.1</a>	<a href="#">Certification Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002</a>				X
<a href="#">31.2</a>	<a href="#">Certification Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002</a>				X
<a href="#">32.1</a>	<a href="#">Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of The Sarbanes-Oxley Act of 2002</a>				X
<a href="#">32.2</a>	<a href="#">Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of The Sarbanes-Oxley Act of 2002</a>				X
101.1	The following financial information from Chubb Limited's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 formatted in XBRL: (i) Consolidated Balance Sheets at June 30, 2018, and December 31, 2017; (ii) Consolidated Statements of Operations and Comprehensive Income for the three and six months ended June 30, 2018 and 2017; (iii) Consolidated Statements of Shareholders' Equity for the six months ended June 30, 2018 and 2017; (iv) Consolidated Statements of Cash Flows for the six months ended June 30, 2018 and 2017; and (v) Notes to Consolidated Financial Statements				X

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

**CHUBB LIMITED  
(Registrant)**

August 1, 2018

*/s/ Evan G. Greenberg*

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**Evan G. Greenberg**  
**Chairman, President and Chief Executive Officer**

August 1, 2018

*/s/ Philip V. Bancroft*

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**Philip V. Bancroft**  
**Executive Vice President and Chief Financial Officer**

CERTIFICATION PURSUANT TO  
SECTION 302 OF  
THE SARBANES-OXLEY ACT OF 2002

I, Evan G. Greenberg, certify that:

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

Date: August 1, 2018

/s/ Evan G. Greenberg

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Evan G. Greenberg

Chairman, President and Chief Executive Officer

CERTIFICATION PURSUANT TO  
SECTION 302 OF  
THE SARBANES-OXLEY ACT OF 2002

I, Philip V. Bancroft, certify that:

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

Date: August 1, 2018

/s/ Philip V. Bancroft

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Philip V. Bancroft

Executive Vice President and Chief Financial Officer

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

The undersigned officer of Chubb Limited (the Corporation) hereby certifies that the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, fully complies with the applicable reporting requirements of Section 13(a) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a)) and that the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

Dated: August 1, 2018

/s/ Evan G. Greenberg

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Evan G. Greenberg

Chairman, President and Chief Executive Officer

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

The undersigned officer of Chubb Limited (the Corporation) hereby certifies that the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, fully complies with the applicable reporting requirements of Section 13(a) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a)) and that the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

Dated: August 1, 2018

/s/ Philip V. Bancroft

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Philip V. Bancroft

Executive Vice President and Chief Financial Officer