Table of Contents

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 March 31, 2021

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	**98-0091805**
(State or other jurisdiction of incorporation or organization)	(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)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares, par value CHF 24.15 per share	CB	New York Stock Exchange
Guarantee of Chubb INA Holdings Inc. 0.30% Senior Notes due 2024	CB/24A	New York Stock Exchange
Guarantee of Chubb INA Holdings Inc. 0.875% Senior Notes due 2027	CB/27	New York Stock Exchange
Guarantee of Chubb INA Holdings Inc. 1.55% Senior Notes due 2028	CB/28	New York Stock Exchange
Guarantee of Chubb INA Holdings Inc. 0.875% Senior Notes due 2029	CB/29A	New York Stock Exchange
Guarantee of Chubb INA Holdings Inc. 1.40% Senior Notes due 2031	CB/31	New York Stock Exchange
Guarantee of Chubb INA Holdings Inc. 2.50% Senior Notes due 2038	CB/38A	New York Stock Exchange

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 every Interactive Data File required to be submitted 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 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	☐	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 April 16, 2021 was 449,690,575.

CHUBB LIMITED
INDEX TO FORM 10-Q

PART I FINANCIAL INFORMATION

ITEM 1. Financial Statements

CONSOLIDATED BALANCE SHEETS (Unaudited)
Chubb Limited and Subsidiaries

(in millions of U.S. dollars, except share and per share data)	March 31 2021	December 31 2020
Assets		
Investments		
Fixed maturities available for sale, at fair value, net of valuation allowance - $15 and $20 (amortized cost – $87,873 and $85,188)	**$ 91,071**	$ 90,699
Fixed maturities held to maturity, at amortized cost, net of valuation allowance - $43 and $44 (fair value – $11,752 and $12,510)	**11,132**	11,653
Equity securities, at fair value	**4,405**	4,027
Short-term investments, at fair value (amortized cost – $3,736 and $4,349)	**3,735**	4,345
Other investments, at fair value	**8,636**	7,945
Total investments	**118,979**	118,669
Cash	**1,684**	1,747
Restricted cash	**157**	89
Securities lending collateral	**2,076**	1,844
Accrued investment income	**857**	867
Insurance and reinsurance balances receivable, net of valuation allowance - $43 and $44	**10,573**	10,480
Reinsurance recoverable on losses and loss expenses, net of valuation allowance - $317 and $314	**15,914**	15,592
Reinsurance recoverable on policy benefits	**202**	206
Deferred policy acquisition costs	**5,443**	5,402
Value of business acquired	**258**	263
Goodwill	**15,412**	15,400
Other intangible assets	**5,749**	5,811
Prepaid reinsurance premiums	**2,835**	2,769
Investments in partially-owned insurance companies	**2,871**	2,813
Other assets	**8,967**	8,822
Total assets	**$ 191,977**	$ 190,774
Liabilities		
Unpaid losses and loss expenses	**$ 69,255**	$ 67,811
Unearned premiums	**18,040**	17,652
Future policy benefits	**5,839**	5,713
Insurance and reinsurance balances payable	**6,566**	6,708
Securities lending payable	**2,076**	1,844
Accounts payable, accrued expenses, and other liabilities	**14,051**	14,052
Deferred tax liabilities	**482**	892
Repurchase agreements	**1,405**	1,405
Long-term debt	**14,879**	14,948
Trust preferred securities	**308**	308
Total liabilities	**132,901**	131,333
Commitments and contingencies (refer to Note 7)		
Shareholders' equity		
Common Shares (CHF 24.15 par value; 477,605,264 shares issued; 449,676,959 and 450,732,625 shares outstanding)	**11,064**	11,064
Common Shares in treasury (27,928,305 and 26,872,639 shares)	**(3,901)**	(3,644)
Additional paid-in capital	**9,318**	9,815
Retained earnings	**41,637**	39,337
Accumulated other comprehensive income (AOCI)	**958**	2,869
Total shareholders' equity	**59,076**	59,441
Total liabilities and shareholders' equity	**$ 191,977**	$ 190,774

See accompanying notes to the consolidated financial statements

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (Unaudited)

Chubb Limited and Subsidiaries

	Three Months Ended March 31	
(in millions of U.S. dollars, except per share data)	**2021**	2020
Revenues		
Net premiums written	**$ 8,662**	$ 7,977
Increase in unearned premiums	**(441)**	(183)
Net premiums earned	**8,221**	7,794
Net investment income	**863**	861
Net realized gains (losses) (includes $24 and $(319) reclassified from AOCI)	**887**	(958)
Total revenues	**9,971**	7,697
Expenses		
Losses and loss expenses	**5,053**	4,485
Policy benefits	**167**	129
Policy acquisition costs	**1,665**	1,615
Administrative expenses	**744**	741
Interest expense	**122**	132
Other (income) expense	**(490)**	55
Amortization of purchased intangibles	**72**	73
Total expenses	**7,333**	7,230
Income before income tax	**2,638**	467
Income tax expense (benefit) (includes $4 and $(40) on unrealized gains and losses reclassified from AOCI)	**338**	215
Net income	**$ 2,300**	$ 252
Other comprehensive income (loss)		
Unrealized depreciation	**$ (2,293)**	$ (2,479)
Reclassification adjustment for net realized (gains) losses included in net income	**(24)**	319
	(2,317)	(2,160)
Change in:		
Cumulative foreign currency translation adjustment	**22**	(859)
Postretirement benefit liability adjustment	**(28)**	(14)
Other comprehensive loss, before income tax	**(2,323)**	(3,033)
Income tax benefit related to OCI items	**412**	321
Other comprehensive loss	**(1,911)**	(2,712)
Comprehensive income (loss)	**$ 389**	$ (2,460)
Earnings per share		
Basic earnings per share	**$ 5.10**	$ 0.56
Diluted earnings per share	**$ 5.07**	$ 0.55

See accompanying notes to the consolidated financial statements

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (Unaudited)

Chubb Limited and Subsidiaries

(in millions of U.S. dollars)	Three Months Ended March 31 2021	2020
Common Shares		
Balance – beginning and end of period	$ 11,064	$ 11,121
Common Shares in treasury		
Balance – beginning of period	(3,644)	(3,754)
Common Shares repurchased	(519)	(326)
Net shares issued under employee share-based compensation plans	262	208
Balance – end of period	(3,901)	(3,872)
Additional paid-in capital		
Balance – beginning of period	9,815	11,203
Net shares issued under employee share-based compensation plans	(187)	(196)
Exercise of stock options	(24)	(26)
Share-based compensation expense	66	69
Funding of dividends declared to Retained earnings	(352)	(340)
Balance – end of period	9,318	10,710
Retained earnings		
Balance – beginning of period	39,337	36,142
Cumulative effect of adoption of accounting guidance	—	(63)
Balance – beginning of period, as adjusted	39,337	36,079
Net income	2,300	252
Funding of dividends declared from Additional paid-in capital	352	340
Dividends declared on Common Shares	(352)	(340)
Balance – end of period	41,637	36,331
Accumulated other comprehensive income (loss)		
Net unrealized appreciation (depreciation) on investments		
Balance – beginning of period	4,673	2,543
Change in period, before reclassification from AOCI, net of income tax benefit of $401 and $324	(1,892)	(2,155)
Amounts reclassified from AOCI, net of income tax (expense) benefit of $4 and $(40)	(20)	279
Change in period, net of income tax benefit of $405 and $284	(1,912)	(1,876)
Balance – end of period	2,761	667
Cumulative foreign currency translation adjustment		
Balance – beginning of period	(1,637)	(1,939)
Change in period, net of income tax benefit of $2 and $34	24	(825)
Balance – end of period	(1,613)	(2,764)
Postretirement benefit liability adjustment		
Balance – beginning of period	(167)	15
Change in period, net of income tax benefit of $5 and $3	(23)	(11)
Balance – end of period	(190)	4
Accumulated other comprehensive income (loss)	958	(2,093)
Total shareholders' equity	$ 59,076	$ 52,197

See accompanying notes to the consolidated financial statements

CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

Chubb Limited and Subsidiaries

(in millions of U.S. dollars)	Three Months Ended March 31 2021	2020
Cash flows from operating activities		
Net income	**$ 2,300**	$ 252
Adjustments to reconcile net income to net cash flows from operating activities		
Net realized (gains) losses	**(887)**	958
Amortization of premiums/discounts on fixed maturities	**76**	87
Amortization of purchased intangibles	**72**	73
Deferred income taxes	**—**	(13)
Unpaid losses and loss expenses	**1,368**	228
Unearned premiums	**503**	192
Future policy benefits	**47**	31
Insurance and reinsurance balances payable	**(36)**	2
Accounts payable, accrued expenses, and other liabilities	**(663)**	(392)
Income taxes payable	**101**	109
Insurance and reinsurance balances receivable	**(209)**	(6)
Reinsurance recoverable	**(290)**	116
Deferred policy acquisition costs	**(81)**	(65)
Other	**(196)**	140
Net cash flows from operating activities	**2,105**	1,712
Cash flows from investing activities		
Purchases of fixed maturities available for sale	**(7,738)**	(6,474)
Purchases of fixed maturities held to maturity	**(102)**	(6)
Purchases of equity securities	**(351)**	(1,380)
Sales of fixed maturities available for sale	**1,343**	4,687
Sales of equity securities	**351**	131
Maturities and redemptions of fixed maturities available for sale	**4,289**	2,756
Maturities and redemptions of fixed maturities held to maturity	**604**	440
Net change in short-term investments	**595**	552
Net derivative instruments settlements	**87**	109
Private equity contributions	**(427)**	(361)
Private equity distributions	**206**	211
Payment, including deposit, for Huatai Group interest	**(65)**	(1,550)
Other	**(44)**	(125)
Net cash flows used for investing activities	**(1,252)**	(1,010)
Cash flows from financing activities		
Dividends paid on Common Shares	**(352)**	(339)
Common Shares repurchased	**(519)**	(323)
Proceeds from issuance of repurchase agreements	**450**	952
Repayment of repurchase agreements	**(450)**	(952)
Proceeds from share-based compensation plans	**115**	47
Policyholder contract deposits and other	**133**	135
Policyholder contract withdrawals and other	**(124)**	(162)
Other	**(65)**	(3)
Net cash flows used for financing activities	**(812)**	(645)
Effect of foreign currency rate changes on cash and restricted cash	**(36)**	(45)
Net increase in cash and restricted cash	**5**	12
Cash and restricted cash – beginning of period	**1,836**	1,646
Cash and restricted cash – end of period	**$ 1,841**	$ 1,658
Supplemental cash flow information		
Taxes paid	**$ 236**	$ 107
Interest paid	**$ 90**	$ 91

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. Our results are reported 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 11 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 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 2020 Form 10-K.

b) Restricted cash

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)		**March 31 2021**		December 31 2020
Cash	**$**	**1,684**	$	1,747
Restricted cash		**157**		89
Total cash and restricted cash shown in the Consolidated statements of cash flows	**$**	**1,841**	$	1,836

c) Goodwill

During the three months ended March 31, 2021, Goodwill increased $12 million, primarily reflecting the impact of foreign exchange.

d) Accounting guidance not yet adopted

Targeted Improvements to the Accounting for Long-Duration Contracts

In August 2018, the FASB issued guidance to improve the existing recognition, measurement, presentation, and disclosure requirements for long-duration contracts issued by an insurance entity. The amendments in this update require more frequent updating of assumptions and a standardized discount rate for the future policy benefit liability, a requirement to use the fair value measurement model for policies with market risk benefits, simplified amortization of deferred acquisition costs, and enhanced disclosures. This standard will be effective in the first quarter of 2023 with early adoption permitted. We are currently assessing the effect of adopting this guidance on our financial condition and results of operations. We will be better able to quantify the effect of adopting this standard as we progress in our implementation process and draw nearer to the date of adoption.

2. Acquisitions

Huatai Group

Chubb maintains a direct investment in Huatai Insurance Group Co., Ltd. (Huatai Group). Huatai Group is the parent company of, and owns 100 percent of, Huatai Property & Casualty Insurance Co., Ltd. (Huatai P&C), approximately 80 percent of Huatai Life Insurance Co., Ltd. (Huatai Life), and approximately 82 percent of Huatai Asset Management Co., Ltd. (collectively, Huatai). Huatai Group's insurance operations have more than 600 branches and 17 million customers in China. In November 2020, we completed the purchase of an incremental 0.9 percent ownership interest in Huatai Group for approximately $65 million, which was paid in January 2021.

As of March 31, 2021, Chubb's aggregate ownership interest in Huatai Group was approximately 47.1 percent. Chubb applies the equity method of accounting to its investment in Huatai Group by recording its share of net income or loss in Other (income) expense in the Consolidated statements of operations. In 2019, Chubb entered into an agreement to acquire an additional 7.1 percent ownership interest in Huatai Group. The purchase of the additional 7.1 percent ownership interest is contingent upon important conditions. Upon completion of the 7.1 percent purchase, Chubb is expected to obtain majority ownership of Huatai Group and control of Huatai. At that time, Chubb is expected to apply consolidation accounting and discontinue the application of the equity method of accounting.

3. Investments

a) Fixed maturities

March 31, 2021 (in millions of U.S. dollars)	Amortized Cost	Valuation Allowance	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value
Available for sale					
U.S. Treasury / Agency	$ 2,413	$ —	$ 121	$ (7)	$ 2,527
Non-U.S.	25,147	(6)	1,214	(189)	26,166
Corporate and asset-backed securities	35,224	(9)	1,474	(289)	36,400
Mortgage-backed securities	18,788	—	738	(89)	19,437
Municipal	6,301	—	254	(14)	6,541
	$ 87,873	$ (15)	$ 3,801	$ (588)	$ 91,071

	Amortized Cost	Valuation Allowance	Net Carrying Value	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value
Held to maturity						
U.S. Treasury / Agency	$ 1,158	$ —	$ 1,158	$ 39	$ —	$ 1,197
Non-U.S.	1,276	(6)	1,270	82	(1)	1,351
Corporate and asset-backed securities	2,163	(35)	2,128	183	—	2,311
Mortgage-backed securities	1,888	(1)	1,887	110	—	1,997
Municipal	4,690	(1)	4,689	207	—	4,896
	$ 11,175	$ (43)	$ 11,132	$ 621	$ (1)	$ 11,752

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)
Chubb Limited and Subsidiaries

December 31, 2020 (in millions of U.S. dollars)	Amortized Cost	Valuation Allowance	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value
Available for sale					
U.S. Treasury / Agency	$ 2,471	$ —	$ 199	$ —	$ 2,670
Non-U.S.	24,594	(6)	1,808	(42)	26,354
Corporate and asset-backed securities	34,095	(14)	2,322	(72)	36,331
Mortgage-backed securities	17,456	—	1,022	(8)	18,470
Municipal	6,572	—	304	(2)	6,874
	$ 85,188	$ (20)	$ 5,655	$ (124)	$ 90,699

	Amortized Cost	Valuation Allowance	Net Carrying Value	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value
Held to maturity						
U.S. Treasury / Agency	$ 1,392	$ —	$ 1,392	$ 60	$ —	$ 1,452
Non-U.S.	1,295	(7)	1,288	118	(1)	1,405
Corporate and asset-backed securities	2,185	(35)	2,150	288	—	2,438
Mortgage-backed securities	2,000	(1)	1,999	148	(1)	2,146
Municipal	4,825	(1)	4,824	245	—	5,069
	$ 11,697	$ (44)	$ 11,653	$ 859	$ (2)	$ 12,510

The following table presents the amortized cost of our HTM securities according to S&P rating:

	March 31, 2021		December 31, 2020	
(in millions of U.S. dollars, except for percentages)	**Amortized cost**	**% of Total**	Amortized cost	% of Total
AAA	**$ 2,404**	**22 %**	$ 2,511	22 %
AA	**5,815**	**52 %**	6,193	53 %
A	**2,109**	**19 %**	2,138	18 %
BBB	**818**	**7 %**	826	7 %
BB	**28**	**— %**	28	— %
Other	**1**	**— %**	1	— %
Total	**$ 11,175**	**100 %**	$ 11,697	100 %

The following table presents fixed maturities by contractual maturity:

	March 31 2021		December 31 2020	
(in millions of U.S. dollars)	Net Carrying Value	Fair Value	Net Carrying Value	Fair Value
Available for sale				
Due in 1 year or less	$ 4,767	$ 4,767	$ 4,760	$ 4,760
Due after 1 year through 5 years	26,100	26,100	26,227	26,227
Due after 5 years through 10 years	27,394	27,394	27,232	27,232
Due after 10 years	13,373	13,373	14,010	14,010
	71,634	71,634	72,229	72,229
Mortgage-backed securities	19,437	19,437	18,470	18,470
	$ 91,071	$ 91,071	$ 90,699	$ 90,699
Held to maturity				
Due in 1 year or less	$ 1,099	$ 1,109	$ 1,231	$ 1,240
Due after 1 year through 5 years	3,471	3,613	3,592	3,760
Due after 5 years through 10 years	2,918	3,072	3,029	3,228
Due after 10 years	1,757	1,961	1,802	2,136
	9,245	9,755	9,654	10,364
Mortgage-backed securities	1,887	1,997	1,999	2,146
	$ 11,132	$ 11,752	$ 11,653	$ 12,510

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) Gross unrealized loss

Fixed maturities in an unrealized loss position at March 31, 2021 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 AFS fixed maturities in an unrealized loss position (including securities on loan) that are not deemed to have expected credit losses, the aggregate fair value and gross unrealized loss by length of time the security has continuously been in an unrealized loss position:

	0 – 12 Months		Over 12 Months		Total	
March 31, 2021 (in millions of U.S. dollars)	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss
U.S. Treasury / Agency	$ 220	$ (7)	$ —	$ —	$ 220	$ (7)
Non-U.S.	4,775	(161)	381	(19)	5,156	(180)
Corporate and asset-backed securities	6,753	(254)	737	(19)	7,490	(273)
Mortgage-backed securities	5,470	(87)	62	(2)	5,532	(89)
Municipal	367	(13)	14	(1)	381	(14)
Total AFS fixed maturities	$ 17,585	$ (522)	$ 1,194	$ (41)	$ 18,779	$ (563)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)
Chubb Limited and Subsidiaries

December 31, 2020 (in millions of U.S. dollars)	0 – 12 Months Fair Value	0 – 12 Months Gross Unrealized Loss	Over 12 Months Fair Value	Over 12 Months Gross Unrealized Loss	Total Fair Value	Total Gross Unrealized Loss
Non-U.S.	$ 1,628	$ (35)	$ 114	$ (5)	$ 1,742	$ (40)
Corporate and asset-backed securities	2,212	(33)	593	(14)	2,805	(47)
Mortgage-backed securities	875	(6)	35	(2)	910	(8)
Municipal	40	(1)	16	(1)	56	(2)
Total AFS fixed maturities	$ 4,755	$ (75)	$ 758	$ (22)	$ 5,513	$ (97)

c) Net realized gains (losses)

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

(in millions of U.S. dollars)	Three Months Ended March 31 **2021**	Three Months Ended March 31 2020
Fixed maturities:		
Gross realized gains	**$ 37**	$ 77
Gross realized losses	**(19)**	(125)
Net (provision for) recovery of expected credit losses	**6**	(150)
Impairment [(1)]	**—**	(121)
Total fixed maturities	**$ 24**	$ (319)
Equity securities	**367**	(29)
Other investments	**38**	5
Foreign exchange gains (losses)	**76**	(68)
Investment and embedded derivative instruments	**109**	15
Fair value adjustments on insurance derivative	**319**	(685)
S&P futures	**(44)**	125
Other derivative instruments	**(1)**	(2)
Other	**(1)**	—
Net realized gains (losses) (pre-tax)	**$ 887**	$ (958)

(1) Relates to certain securities we intended to sell and securities written to market entering default.

Realized gains and losses from Equity securities and Other investments from the table above include sales of securities and unrealized gains and losses from fair value changes as follows:

(in millions of U.S. dollars)	**2021** **Equity Securities**	**2021** **Other Investments**	**2021** **Total**	2020 Equity Securities	2020 Other Investments	2020 Total
Net gains (losses) recognized during the period	**$ 367**	**$ 38**	**$ 405**	$ (29)	$ 5	$ (24)
Less: Net gains (losses) recognized from sales of securities	**45**	**—**	**45**	(24)	—	(24)
Unrealized gains (losses) recognized for securities still held at reporting date	**$ 322**	**$ 38**	**$ 360**	$ (5)	$ 5	$ —

(Three Months Ended March 31)

The following table presents a roll-forward of valuation allowance for expected credit losses on fixed maturities:

(in millions of U.S. dollars)	Three Months Ended March 31 2021	2020
Available for sale		
Valuation allowance for expected credit losses - beginning of period	**$ 20**	$ —
Impact of adoption of new accounting guidance	**—**	25
Provision for expected credit loss	**4**	149
Initial allowance for purchased securities with credit deterioration	**—**	2
Recovery of expected credit loss	**(9)**	—
Valuation allowance for expected credit losses - end of period	**$ 15**	$ 176
Held to maturity		
Valuation allowance for expected credit losses - beginning of period	**$ 44**	$ —
Impact of adoption of new accounting guidance	**—**	44
Provision for expected credit loss	**—**	1
Recovery of expected credit loss	**(1)**	—
Valuation allowance for expected credit losses - end of period	**$ 43**	$ 45

d) Alternative investments

Alternative investments include partially-owned investment companies, investment funds, and limited partnerships measured at fair value using net asset value (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:

		March 31 2021		December 31 2020	
(in millions of U.S. dollars)	**Expected Liquidation Period of Underlying Assets**	**Fair Value**	**Maximum Future Funding Commitments**	Fair Value	Maximum Future Funding Commitments
Financial	**2 to 10 Years**	**$ 710**	**$ 270**	$ 673	$ 237
Real Assets	**2 to 11 Years**	**942**	**621**	805	598
Distressed	**2 to 8 Years**	**481**	**864**	358	970
Private Credit	**3 to 8 Years**	**86**	**276**	88	270
Traditional	**2 to 14 Years**	**4,912**	**1,039**	4,519	1,125
Vintage	**1 to 2 Years**	**72**	**—**	73	—
Investment funds	**Not Applicable**	**254**	**—**	254	—
		$ 7,457	**$ 3,070**	$ 6,770	$ 3,200

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.

Investment Category:	Consists of investments in private equity funds:
Financial	targeting financial services companies, such as financial institutions and insurance services worldwide
Real Assets	targeting investments related to hard, physical assets, such as real estate, infrastructure and natural resources
Distressed	targeting distressed 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	funds where the initial fund term has expired

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 are up to 270 days. Chubb can redeem its investment funds without consent from the investment fund managers.

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 repurchase agreements, which represent Chubb's agreement to sell securities and repurchase them at a future date for a predetermined price. We 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 have investments in segregated portfolios primarily to provide collateral or guarantees for LOC and derivative transactions. Included in restricted assets at March 31, 2021 and December 31, 2020 are investments, primarily fixed maturities, totaling $20.8 billion and $19.6 billion, respectively, and cash of $157 million and $89 million, respectively.

The following table presents the components of restricted assets:

(in millions of U.S. dollars)	**March 31 2021**	December 31 2020
Trust funds	**$ 13,553**	$ 12,305
Deposits with U.S. regulatory authorities	**2,424**	2,438
Deposits with non-U.S. regulatory authorities	**2,917**	2,905
Assets pledged under repurchase agreements	**1,458**	1,462
Other pledged assets	**638**	584
Total	**$ 20,990**	$ 19,694

4. 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.

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 or pricing models, which include available relevant market information, benchmark curves, benchmarking of like securities, sector groupings, and matrix pricing. Additional valuation factors that can be taken into account are nominal spreads, dollar basis, and liquidity adjustments. The pricing services evaluate each asset class based on relevant market and credit information, perceived market movements, and sector news. The market inputs used in the pricing evaluation, listed in the approximate order of priority include: benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, reference data, and industry and economic events. The extent of the use of each input is dependent on the asset class and the market conditions. Given the asset class, the priority of the use of inputs may change, or some market inputs may not be relevant. Additionally, fixed maturities valuation is more subjective when markets are less liquid due to the lack of market based inputs (i.e., stale pricing) and may require the use of models to be priced. The lack of market based inputs 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 supplemental retirement 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 and interest rate 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 maintain positions in exchange-traded equity futures contracts designed to limit exposure to a severe equity market decline, which would cause an increase in expected claims and, therefore, an increase in future policy benefit reserves for our guaranteed minimum death benefits (GMDB) and an increase in the fair value liability for our guaranteed living benefits (GLB) reinsurance business. Our positions in exchange-traded equity futures contracts are 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.

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 balance 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. GLB's are recorded in Accounts payable, accrued expenses, and other liabilities 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. Because of the significant use of unobservable inputs including policyholder behavior, GLB reinsurance is classified within Level 3.

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

March 31, 2021 (in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total
Assets:				
Fixed maturities available for sale				
U.S. Treasury / Agency	$ 2,044	$ 483	$ —	$ 2,527
Non-U.S.	—	25,516	650	26,166
Corporate and asset-backed securities	—	34,788	1,612	36,400
Mortgage-backed securities	—	19,386	51	19,437
Municipal	—	6,541	—	6,541
	2,044	86,714	2,313	91,071
Equity securities	4,330	—	75	4,405
Short-term investments	2,279	1,455	1	3,735
Other investments (1)	421	446	10	877
Securities lending collateral	—	2,076	—	2,076
Investment derivative instruments	69	—	—	69
Other derivative instruments	2	—	—	2
Separate account assets	4,493	115	—	4,608
Total assets measured at fair value (1)	$ 13,638	$ 90,806	$ 2,399	$ 106,843
Liabilities:				
Investment derivative instruments	$ 79	$ —	$ —	$ 79
Other derivative instruments	7	—	—	7
GLB (2)	—	—	760	760
Total liabilities measured at fair value	$ 86	$ —	$ 760	$ 846

(1) Excluded from the table above are partially-owned investments, investment funds, and limited partnerships of $7,457 million, policy loans of $232 million and other investments of $70 million at March 31, 2021 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.

December 31, 2020 (in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total
Assets:				
Fixed maturities available for sale				
U.S. Treasury / Agency	$ 2,148	$ 522	$ —	$ 2,670
Non-U.S.	—	25,808	546	26,354
Corporate and asset-backed securities	—	34,758	1,573	36,331
Mortgage-backed securities	—	18,410	60	18,470
Municipal	—	6,874	—	6,874
	2,148	86,372	2,179	90,699
Equity securities	3,954	—	73	4,027
Short-term investments	2,866	1,474	5	4,345
Other investments [(1)]	434	438	10	882
Securities lending collateral	—	1,844	—	1,844
Investment derivative instruments	35	—	—	35
Separate account assets	4,264	124	—	4,388
Total assets measured at fair value [(1)]	$ 13,701	$ 90,252	$ 2,267	$ 106,220
Liabilities:				
Investment derivative instruments	$ 52	$ —	$ —	$ 52
Other derivative instruments	17	—	—	17
GLB [(2)]	—	—	1,089	1,089
Total liabilities measured at fair value	$ 69	$ —	$ 1,089	$ 1,158

(1) Excluded from the table above are partially-owned investments, investment funds, and limited partnerships of $6,770 million, policy loans of $233 million and other investments of $60 million at December 31, 2020 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.

Level 3 financial instruments

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. The majority of our fixed maturities classified as Level 3 used external pricing when markets are less liquid due to the lack of market inputs (i.e., stale pricing, broker quotes).

(in millions of U.S. dollars, except for percentages)	Fair Value March 31, 2021	Fair Value December 31, 2020	Valuation Technique	Significant Unobservable Inputs	Ranges	Weighted Average [(1)]
GLB [(1)]	**$ 760**	$ 1,089	**Actuarial model**	**Lapse rate**	**3% – 34%**	**4.6 %**
				Annuitization rate	**0% – 100%**	**3.4 %**

(1) The weighted average lapse and annuitization rates are determined by weighting each treaty's rates by the GLB contracts fair value.

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. For the three months ended March 31, 2021 and 2020, no material refinements were made to the model. For detailed information on our lapse and annuitization rate assumptions, refer to Note 4 to the Consolidated Financial Statements of our 2020 Form 10-K.

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):

	Assets						Liabilities
	Available-for-Sale Debt Securities						
Three Months Ended March 31, 2021 (in millions of U.S. dollars)	Non-U.S.	Corporate and asset-backed securities	Mortgage-backed securities	Equity securities	Short-term investments	Other investments	GLB [1]
Balance, beginning of period	$ 546	$ 1,573	$ 60	$ 73	$ 5	$ 10	$ 1,089
Transfers into Level 3	—	17	—	—	—	—	—
Change in Net Unrealized Gains/Losses in OCI	8	6	—	—	—	—	—
Net Realized Gains/Losses	—	(3)	—	2	—	—	(319)
Purchases	121	169	—	3	1	—	—
Sales	(7)	(25)	—	(3)	—	—	—
Settlements	(18)	(125)	(9)	—	(5)	—	—
Other	—	—	—	—	—	—	(10)
Balance, end of period	$ 650	$ 1,612	$ 51	$ 75	$ 1	$ 10	$ 760
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	$ —	$ (3)	$ —	$ 2	$ —	$ —	$ (319)
Change in Net Unrealized Gains/Losses included in OCI at the Balance sheet date	$ 10	$ 11	$ —	$ —	$ —	$ —	$ —

(1) Our GLB reinsurance product meets the definition of a derivative instrument for accounting purposes and is accordingly carried at fair value.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)
Chubb Limited and Subsidiaries

	Assets						Liabilities
	Available-for-Sale Debt Securities						
Three Months Ended March 31, 2020 (in millions of U.S. dollars)	Non-U.S.	Corporate and asset-backed securities	Mortgage-backed securities	Equity securities	Short-term investments	Other investments	GLB [1]
Balance, beginning of period	$ 449	$ 1,451	$ 60	$ 69	$ 6	$ 10	$ 897
Transfers into Level 3	—	91	—	—	—	—	—
Transfers out of Level 3	(3)	(1)	—	—	—	—	—
Change in Net Unrealized Gains/ Losses in OCI	(14)	(45)	—	1	—	—	—
Net Realized Gains/Losses	(2)	(13)	—	(2)	—	—	685
Purchases	82	139	—	3	1	—	—
Sales	(46)	(19)	—	(4)	—	—	—
Settlements	(1)	(101)	—	—	(6)	—	—
Other	—	—	—	—	—	—	9
Balance, end of period	$ 465	$ 1,502	$ 60	$ 67	$ 1	$ 10	$ 1,591
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	$ —	$ (14)	$ —	$ (2)	$ —	$ —	$ 685
Change in Net Unrealized Gains/Losses included in OCI at the Balance sheet date	$ (15)	$ (44)	$ —	$ —	$ —	$ —	$ —

(1) Our GLB reinsurance product meets the definition of a derivative instrument for accounting purposes and is accordingly carried at fair value.

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 2020 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:

March 31, 2021 (in millions of U.S. dollars)	Level 1	Level 2	Level 3	Fair Value Total	Net Carrying Value
Assets:					
Fixed maturities held to maturity					
U.S. Treasury / Agency	$ 1,144	$ 53	$ —	$ 1,197	$ 1,158
Non-U.S.	—	1,351	—	1,351	1,270
Corporate and asset-backed securities	—	2,311	—	2,311	2,128
Mortgage-backed securities	—	1,997	—	1,997	1,887
Municipal	—	4,896	—	4,896	4,689
Total assets	$ 1,144	$ 10,608	$ —	$ 11,752	$ 11,132
Liabilities:					
Repurchase agreements	$ —	$ 1,405	$ —	$ 1,405	$ 1,405
Long-term debt	—	16,408	—	16,408	14,879
Trust preferred securities	—	470	—	470	308
Total liabilities	$ —	$ 18,283	$ —	$ 18,283	$ 16,592

December 31, 2020 (in millions of U.S. dollars)	Level 1	Level 2	Level 3	Fair Value Total	Net Carrying Value
Assets:					
Fixed maturities held to maturity					
U.S. Treasury / Agency	$ 1,395	$ 57	$ —	$ 1,452	$ 1,392
Non-U.S.	—	1,405	—	1,405	1,288
Corporate and asset-backed securities	—	2,438	—	2,438	2,150
Mortgage-backed securities	—	2,146	—	2,146	1,999
Municipal	—	5,069	—	5,069	4,824
Total assets	$ 1,395	$ 11,115	$ —	$ 12,510	$ 11,653
Liabilities:					
Repurchase agreements	$ —	$ 1,405	$ —	$ 1,405	$ 1,405
Long-term debt	—	17,487	—	17,487	14,948
Trust preferred securities	—	473	—	473	308
Total liabilities	$ —	$ 19,365	$ —	$ 19,365	$ 16,661

5. Reinsurance

Reinsurance recoverable on ceded reinsurance

(in millions of U.S. dollars)	March 31, 2021 Net Reinsurance Recoverable [1]	March 31, 2021 Valuation allowance	December 31, 2020 Net Reinsurance Recoverable [1]	December 31, 2020 Valuation allowance
Reinsurance recoverable on unpaid losses and loss expenses	$ 14,860	$ 258	$ 14,647	$ 257
Reinsurance recoverable on paid losses and loss expenses	1,054	59	945	57
Reinsurance recoverable on losses and loss expenses	$ 15,914	$ 317	$ 15,592	$ 314
Reinsurance recoverable on policy benefits	$ 202	$ 4	$ 206	$ 5

(1) Net of valuation allowance for uncollectible reinsurance.

The increase in reinsurance recoverable on losses and loss expenses was primarily due to unfavorable prior period development in certain lines and catastrophe losses in the quarter.

The following table presents a roll-forward of valuation allowance for uncollectible reinsurance related to Reinsurance recoverable on loss and loss expenses:

(in millions of U.S. dollars)	Three Months Ended March 31 2021	Three Months Ended March 31 2020
Valuation allowance for uncollectible reinsurance - beginning of period	$ 314	$ 316
Provision for uncollectible reinsurance	3	2
Write-offs charged against the valuation allowance	—	(13)
Valuation allowance for uncollectible reinsurance - end of period	$ 317	$ 305

For additional information, refer to Note 1 d) to the Consolidated Financial Statements of our 2020 Form 10-K.

6. 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)	Three Months Ended March 31 2021	2020
Gross unpaid losses and loss expenses – beginning of period	**$ 67,811**	$ 62,690
Reinsurance recoverable on unpaid losses – beginning of period [(1)]	**(14,647)**	(14,181)
Net unpaid losses and loss expenses – beginning of period	**53,164**	48,509
Net losses and loss expenses incurred in respect of losses occurring in:		
Current year	**5,249**	4,605
Prior years [(2)]	**(196)**	(120)
Total	**5,053**	4,485
Net losses and loss expenses paid in respect of losses occurring in:		
Current year	**732**	920
Prior years	**3,161**	3,335
Total	**3,893**	4,255
Foreign currency revaluation and other	**71**	(565)
Net unpaid losses and loss expenses – end of period	**54,395**	48,174
Reinsurance recoverable on unpaid losses [(1)]	**14,860**	14,040
Gross unpaid losses and loss expenses – end of period	**$ 69,255**	$ 62,214

(1) Net of valuation allowance for uncollectible reinsurance.

(2) Relates to prior period loss reserve development only and excludes prior period development related to reinstatement premiums, expense adjustments and earned premiums totaling $4 million and $2 million for the three months ended March 31, 2021 and 2020, respectively.

Gross and net unpaid losses and loss expenses increased $1,444 million and $1,231 million, respectively, for the three months ended March 31, 2021, reflecting an increase in underlying exposure due to premium growth and catastrophe losses incurred, partially offset by favorable prior period development.

Prior Period Development

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. 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.

The following table summarizes (favorable) and adverse PPD by segment.

	Three Months Ended March 31		
(in millions of U.S. dollars)	**Long-tail**	**Short-tail**	**Total**
2021			
North America Commercial P&C Insurance	**$ (46)**	**$ (81)**	**$ (127)**
North America Personal P&C Insurance	**—**	**(40)**	**(40)**
North America Agricultural Insurance	**—**	**(2)**	**(2)**
Overseas General Insurance	**—**	**(25)**	**(25)**
Global Reinsurance	**—**	**(7)**	**(7)**
Corporate	**9**	**—**	**9**
Total	**$ (37)**	**$ (155)**	**$ (192)**
2020			
North America Commercial P&C Insurance	$ (43)	$ (62)	$ (105)
North America Personal P&C Insurance	—	1	1
North America Agricultural Insurance	—	(14)	(14)
Overseas General Insurance	—	(4)	(4)
Global Reinsurance	—	(7)	(7)
Corporate	11	—	11
Total	$ (32)	$ (86)	$ (118)

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.

North America Commercial P&C Insurance
2021
For the three months ended March 31, 2021, net favorable PPD was $127 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 $46 million in long-tail business, primarily from:
  - Net favorable development of $51 million in professional liability (errors & omissions and third-party cyber risk), driven by accident years 2016 and 2017, which saw lower than expected loss emergence, partly offset by higher than expected development in accident year 2019;
  - Net favorable development of $35 million in voluntary environmental lines, driven by accident years 2017 and prior, which saw lower than expected loss emergence, partly offset by higher than expected development in accident year 2019; and
  - Net adverse development of $57 million in excess and umbrella portfolios, with accident years 2015 through 2019 continuing to experience higher than expected loss development, partly offset by favorable development in accident years 2014 and prior.
- Net favorable development of $81 million in short-tail business, primarily from:
  - Net favorable development of $49 million in surety, mainly in accident years 2018 and 2019, driven by lower than expected loss emergence;
  - Net favorable development of $48 million in accident & health, driven by accident years 2019 and 2020, where loss emergence was lower than expected;

- Net favorable development of $25 million in property and marine coverages in accident year 2020, driven by lower than expected non-catastrophe loss development; and

- Net adverse development of $41 million in first-party cyber risk, driven by accident years 2019 and 2020, which experienced higher than expected loss development as well as heightened frequency and severity.

2020
For the three months ended March 31, 2020, net favorable PPD was $105 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 $43 million in long-tail business, primarily from:

  - Net favorable development of $66 million in professional liability (errors & omissions and third-party cyber risk), driven by accident years 2016 and prior, which saw lower than expected emergence;

  - Net favorable development of $43 million in voluntary environmental lines, driven by accident years 2016 and prior, which saw lower than expected emergence and a favorable revision to loss development patterns;

  - Net favorable development of $28 million in construction workers’ compensation, mainly in accident years 2016 and prior, which saw lower than expected reported loss emergence and a favorable revision to loss development patterns;

  - Net adverse development of $49 million in excess and umbrella portfolios, with accident years 2015 through 2019 experiencing higher than expected reported development, partially offset by lower than expected emergence in accident years 2014 and prior; and

  - Net adverse development of $23 million in wholesale general liability coverages, driven by higher than expected reported loss emergence in accident years 2014 through 2019.

- Net favorable development of $62 million in short-tail business, primarily from:

  - Net favorable development of $36 million, in accident & health, mainly in accident years 2018 and 2019, driven by lower than expected paid loss emergence; and

  - Net favorable development of $31 million in surety, driven by accident year 2018, where loss emergence was lower than expected.

North America Personal P&C Insurance
2021
For the three months ended March 31, 2021, net favorable PPD was $40 million, driven by accident year 2020, which experienced better than expected non-catastrophe loss development in homeowners and valuables.

Overseas General Insurance
2021
For the three months ended March 31, 2021, net favorable PPD was $25 million, which reflects favorable loss experience across several lines, mainly in accident year 2020, none of which were significant individually or in the aggregate.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)
Chubb Limited and Subsidiaries

7. 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.

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 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 and 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 book 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:

		March 31, 2021			December 31, 2020		
		Fair Value			Fair Value		
(in millions of U.S. dollars)	**Consolidated Balance Sheet Location**	**Derivative Asset**	**Derivative (Liability)**	**Notional Value/ Payment Provision**	Derivative Asset	Derivative (Liability)	Notional Value/ Payment Provision
Investment and embedded derivative instruments:							
Foreign currency forward contracts	**OA / (AP)**	**$ 21**	**$ (69)**	**$ 3,657**	$ 22	$ (49)	$ 2,807
Options/Futures contracts on notes, bonds, and equities	**OA / (AP)**	**48**	**(10)**	**2,063**	13	(3)	1,749
Convertible securities [1]	**FM AFS / ES**	**11**	**—**	**13**	9	—	11
		$ 80	**$ (79)**	**$ 5,733**	$ 44	$ (52)	$ 4,567
Other derivative instruments:							
Futures contracts on equities [2]	**OA / (AP)**	**$ —**	**$ (7)**	**$ 761**	$ —	$ (17)	$ 709
Other	**OA / (AP)**	**2**	**—**	**52**	—	—	16
		$ 2	**$ (7)**	**$ 813**	$ —	$ (17)	$ 725
GLB [3]	**(AP)**	**$ —**	**$ (760)**	**$ 1,506**	$ —	$ (1,089)	$ 1,658

(1) Includes fair value of embedded derivatives.
(2) Related to GMDB and GLB book of business.
(3) 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 March 31, 2021 and December 31, 2020, net derivative liabilities of $12 million and $30 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.

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

	Three Months Ended March 31	
(in millions of U.S. dollars)	**2021**	2020
Investment and embedded derivative instruments:		
Foreign currency forward contracts	**$ (16)**	$ 43
All other futures contracts, options, and equities	**125**	(27)
Convertible securities [(1)]	**—**	(1)
Total investment and embedded derivative instruments	**$ 109**	$ 15
GLB and other derivative instruments:		
GLB	**$ 319**	$ (685)
Futures contracts on equities [(2)]	**(44)**	125
Other	**(1)**	(2)
Total GLB and other derivative instruments	**$ 274**	$ (562)
	$ 383	$ (547)

(1) Includes embedded derivatives.
(2) Related to GMDB and GLB book 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 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 future policy benefit reserves for GMDB and an increase in the fair value liability for 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 our 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.

Interest rate swaps
An interest rate swap is a contract between two counterparties in which interest payments are made based on a notional principal amount, which itself is never paid or received. Under the terms of an interest rate swap, one counterparty makes interest payments based on a fixed interest rate and the other counterparty's payments are based on a floating rate. Interest rate swap contracts are used occasionally in our investment portfolio as protection against unexpected shifts in interest rates, which would affect the fair value of the fixed maturity portfolio. By using interest rate swaps in the portfolio, the overall duration or interest rate sensitivity of the portfolio can be impacted.

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 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. The GLB is accounted for as a derivative and is recorded at fair value. 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 U.S. and/or international 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.

To mitigate adverse changes in the capital markets, we maintain positions in exchange-traded equity futures contracts, as noted under section "(ii) Futures" above. These futures increase in fair value when the S&P 500 index decreases (and decrease in fair value when the S&P 500 index increases). The net impact of gains or losses related to changes in fair value of the GLB liability and the exchange-traded equity futures are included in Net realized gains (losses).

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.

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:

	Remaining contractual maturity	
	March 31, 2021	December 31, 2020
(in millions of U.S. dollars)	Overnight and Continuous	
Collateral held under securities lending agreements:		
Cash	**$ 732**	$ 551
U.S. Treasury / Agency	**116**	148
Non-U.S.	**1,068**	1,032
Corporate and asset-backed securities	**21**	30
Mortgage-backed securities	**1**	4
Equity securities	**138**	79
	$ 2,076	$ 1,844
Gross amount of recognized liability for securities lending payable	**$ 2,076**	$ 1,844

At March 31, 2021 and December 31, 2020, our repurchase agreement obligations of $1,405 million 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:

	Remaining contractual maturity					
	March 31, 2021			December 31, 2020		
(in millions of U.S. dollars)	**30-90 Days**	**Greater than 90 Days**	**Total**	30-90 Days	Greater than 90 Days	Total
Collateral pledged under repurchase agreements:						
Cash	**$ —**	**$ 10**	**$ 10**	$ —	$ 4	$ 4
U.S. Treasury / Agency	**102**	**4**	**106**	—	106	106
Mortgage-backed securities	**—**	**1,342**	**1,342**	481	871	1,352
	$ 102	**$ 1,356**	**$ 1,458**	$ 481	$ 981	$ 1,462
Gross amount of recognized liabilities for repurchase agreements			**$ 1,405**			$ 1,405
Difference [(1)]			**$ 53**			$ 57

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

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.

d) Fixed maturities

At March 31, 2021, we have commitments to purchase fixed income securities of $591 million over the next several years.

e) Other investments
At March 31, 2021, included in Other investments in the Consolidated balance sheet are investments in limited partnerships and partially-owned investment companies with a carrying value of $7.2 billion. In connection with these investments, we have commitments that may require funding of up to $3.1 billion over the next several years. At December 31, 2020, these investments had a carrying value of $6.5 billion with a commitment that may require funding of up to $3.2 billion.

f) Income taxes
At March 31, 2021, $62 million of unrecognized tax benefits remain outstanding. It is reasonably possible that over the next twelve months, that the amount of unrecognized tax benefits may change resulting from the re-evaluation of unrecognized tax benefits arising from examinations by taxing authorities, settlements and the lapses of statutes of limitations. With few exceptions, Chubb is no longer subject to income tax examinations for years before 2012.

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.

h) Leases
At March 31, 2021 and December 31, 2020, the right-of-use asset was $448 million and $473 million, respectively, recorded within Other assets on the Consolidated balance sheets and the lease liability was $490 million and $517 million, respectively, which was recorded within Accounts payable, accrued expenses, and other liabilities on the Consolidated balance sheets. These leases consist principally of real estate operating leases that are amortized on a straight-line basis over the term of the lease, which expire at various dates.

8. 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 the 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 March 31, 2021, our Common Shares had a par value of CHF 24.15 per share.

At our May 2020 and 2019 annual general meetings, our shareholders approved annual dividends for the following year of up to $3.12 per share and $3.00 per share, respectively, which were paid in four quarterly installments of $0.78 per share and $0.75 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.

Dividend distributions per Common Share for the three months ended March 31, 2021 and 2020 were $0.78 (CHF 0.70) and $0.75 (CHF 0.72), respectively.

Increases in Common Shares in treasury are due to open market repurchases of Common Shares and the surrender of Common Shares to satisfy tax withholding obligations in connection with the vesting of restricted stock and the forfeiture of unvested restricted stock. Decreases in Common Shares in treasury are principally due to grants of restricted stock, exercises of stock options, purchases under the Employee Stock Purchase Plan (ESPP), and share cancellations. At March 31, 2021, 27,928,305 Common Shares remain in treasury after share repurchases and 2,054,334 net shares issued under employee share-based compensation plans.

Chubb Limited securities repurchase authorizations
In November 2019, the Board authorized the repurchase of up to $1.5 billion of Chubb's Common Shares from November 21, 2019 through December 31, 2020. In November 2020, the Board authorized the repurchase of up to $1.5 billion of Chubb's Common Shares from November 19, 2020 through December 31, 2021. The $1.5 billion November 2019 Board authorization remained effective through December 31, 2020. Repurchases through December 31, 2020 were made under this authorization. In February 2021, the Board approved an increase to the November 2020 share repurchase program of $1.0 billion to a total of $2.5 billion, effective through December 31, 2021.

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

	Three Months Ended March 31		April 1, 2021 through April 29, 2021
(in millions of U.S. dollars, except share data)	**2021**	2020	
Number of shares repurchased	**3,110,000**	2,266,150	**450,000**
Cost of shares repurchased	**$ 519**	$ 326	**$ 76**
Repurchase authorization remaining at end of period	**$ 1,982**	$ 1,124	**$ 1,906**

9. 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 respective vesting period, which is also the requisite service period. On February 25, 2021, Chubb granted 1,790,056 stock options with a weighted-average grant date fair value of $33.05 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 restricted stock awards granted comprise target awards and premium awards that cliff vest at the end of a 3-year performance period based on both 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 awards are subject to 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 25, 2021, Chubb granted 848,762 service-based restricted stock awards, 324,142 service-based restricted stock units, and 284,766 performance-based stock awards to employees and officers with a grant date fair value of $164.94 each. Each restricted stock unit represents our obligation to deliver to the holder one Common Share upon vesting.

10. 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:

	Pension Benefit Plans				Other Postretirement Benefit Plans	
	2021		2020		**2021**	2020
Three Months Ended March 31 (in millions of U.S. dollars)	**U.S. Plans**	**Non-U.S. Plans**	U.S. Plans	Non-U.S. Plans		
Service cost	**$ —**	**$ 1**	$ —	$ 1	**$ —**	$ —
Non-service cost (benefit):						
Interest cost	**18**	**5**	25	6	**—**	1
Expected return on plan assets	**(64)**	**(11)**	(56)	(10)	**—**	(1)
Amortization of net actuarial loss	**—**	**1**	—	—	**—**	—
Amortization of prior service cost	**—**	**—**	—	—	**(20)**	(20)
Settlements	**—**	**—**	1	—	**—**	—
Total non-service cost (benefit)	**(46)**	**(5)**	(30)	(4)	**(20)**	(20)
Net periodic benefit cost (benefit)	**$ (46)**	**$ (4)**	$ (30)	$ (3)	**$ (20)**	$ (20)

The line items in which the service cost and non-service cost (benefit) components of net periodic benefit cost (benefit) are included in the Consolidated statements of operations were as follows:

	Pension Benefit Plans		Other Postretirement Benefit Plans	
Three Months Ended March 31 (in millions of U.S. dollars)	**2021**	2020	**2021**	2020
Service cost:				
Losses and loss expenses	**$ —**	$ —	**$ —**	$ —
Administrative expenses	**1**	1	**—**	—
Total service cost	**1**	1	**—**	—
Non-service cost (benefit):				
Losses and loss expenses	**(5)**	(3)	**(2)**	(2)
Administrative expenses	**(46)**	(31)	**(18)**	(18)
Total non-service cost (benefit)	**(51)**	(34)	**(20)**	(20)
Net periodic benefit cost (benefit)	**$ (50)**	$ (33)	**$ (20)**	$ (20)

11. 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 losses and loss expenses of asbestos and environmental (A&E) liabilities and certain other non-A&E run-off exposures.

Management uses underwriting income (loss) as the basis for 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. Our main measure of segment performance is Segment income (loss), which also includes Net investment income (loss), Other (income) expense, and Amortization of purchased intangibles acquired by the segment. We determined that this definition of segment income (loss) is appropriate and aligns with how the business is managed. We continue to evaluate our segments as our business continues to evolve and may further refine our segments and segment income (loss) measures. Certain items are presented in a different manner for segment reporting purposes than in the Consolidated Financial Statements. These items are reconciled to the consolidated presentation in the Segment measure reclass column below and include:

- Losses and loss expenses include 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 impacts underwriting results. We view gains and losses on these derivatives as part of the results of our underwriting operations, and therefore realized gains (losses) from these derivatives are reclassified to losses and loss expenses.

- Policy benefits include gains and losses from fair value changes in separate account assets, as well as the offsetting movement in separate account liabilities. The gains and 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. We view gains and losses from fair value changes in both separate account assets and liabilities as part of the results of our underwriting operations, and therefore these gains and losses are reclassified to policy benefits.

- Net investment income includes investment income reclassified from Other (income) expense related to partially-owned investment companies (private equity partnerships) where our ownership interest is in excess of three percent. We view investment income from these equity-method private equity partnerships as net investment income.

The following tables present the Statement of Operations by segment:

For the Three Months Ended March 31, 2021 (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	Segment Measure Reclass	Chubb Consolidated
Net premiums written	$ 3,664	$ 1,098	$ 183	$ 2,890	$ 207	$ 620	$ —	$ —	$ 8,662
Net premiums earned	3,674	1,184	110	2,478	180	595	—	—	8,221
Losses and loss expenses	2,560	819	85	1,263	120	198	9	(1)	5,053
Policy benefits	—	—	—	—	—	163	—	4	167
Policy acquisition costs	514	247	12	668	45	179	—	—	1,665
Administrative expenses	254	60	3	266	8	82	71	—	744
Underwriting income (loss)	346	58	10	281	7	(27)	(80)	(3)	592
Net investment income (loss)	540	65	7	141	70	98	(17)	(41)	863
Other (income) expense	2	1	—	1	—	(34)	(415)	(45)	(490)
Amortization expense of purchased intangibles	—	3	7	12	—	1	49	—	72
Segment income	$ 884	$ 119	$ 10	$ 409	$ 77	$ 104	$ 269	$ 1	$ 1,873
Net realized gains (losses)							888	(1)	887
Interest expense							122	—	122
Income tax expense							338	—	338
Net income							$ 697	$ —	$ 2,300

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – continued (Unaudited)
Chubb Limited and Subsidiaries

For the Three Months Ended March 31, 2020 (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	Segment Measure Reclass	Chubb Consolidated
Net premiums written	$ 3,252	$ 1,107	$ 157	$ 2,598	$ 218	$ 645	$ —	$ —	$ 7,977
Net premiums earned	3,376	1,200	94	2,307	186	631	—	—	7,794
Losses and loss expenses	2,181	683	65	1,258	87	202	11	(2)	4,485
Policy benefits	—	—	—	—	—	185	—	(56)	129
Policy acquisition costs	492	245	11	642	45	180	—	—	1,615
Administrative expenses	259	68	4	258	10	76	66	—	741
Underwriting income (loss)	444	204	14	149	44	(12)	(77)	58	824
Net investment income (loss)	525	66	9	145	69	95	(24)	(24)	861
Other (income) expense	6	2	—	4	—	(12)	23	32	55
Amortization expense of purchased intangibles	—	3	7	12	—	1	50	—	73
Segment income (loss)	$ 963	$ 265	$ 16	$ 278	$ 113	$ 94	$ (174)	$ 2	$ 1,557
Net realized gains (losses)							(956)	(2)	(958)
Interest expense							132	—	132
Income tax expense							215	—	215
Net income (loss)							$ (1,477)	$ —	$ 252

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

12. Earnings per share

(in millions of U.S. dollars, except share and per share data)	Three Months Ended March 31 2021	2020
Numerator:		
Net income	**$ 2,300**	$ 252
Denominator:		
Denominator for basic earnings per share:		
Weighted-average shares outstanding	**450,539,568**	451,868,658
Denominator for diluted earnings per share:		
Share-based compensation plans	**2,795,971**	2,651,610
Weighted-average shares outstanding and assumed conversions	**453,335,539**	454,520,268
Basic earnings per share	**$ 5.10**	$ 0.56
Diluted earnings per share	**$ 5.07**	$ 0.55
Potential anti-dilutive share conversions	**1,952,612**	3,154,406

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

13. Information provided in connection with outstanding debt of subsidiaries

Chubb INA Holdings Inc. (Subsidiary Issuer) is an indirect 100 percent-owned and consolidated subsidiary of Chubb Limited (Parent Guarantor). The Parent Guarantor fully and unconditionally guarantees certain of the debt of the Subsidiary Issuer. Certain information included relates to our compliance with our debt covenants.

The following table presents the condensed balance sheets of Chubb Limited and Chubb INA Holdings Inc.:

	Chubb Limited (Parent Guarantor) [1]		Chubb INA Holdings Inc. (Subsidiary Issuer)	
(in millions of U.S. dollars)	**March 31, 2021**	December 31, 2020	**March 31, 2021**	December 31, 2020
Assets				
Investments	**$ —**	$ —	**$ 206**	$ 197
Cash	**23**	84	**1**	1
Due from subsidiaries and affiliates, net	**3,510**	3,522	**—**	—
Other assets	**8**	10	**415**	463
Total assets	**$ 3,541**	$ 3,616	**$ 622**	$ 661
Liabilities				
Due to subsidiaries and affiliates, net	**$ —**	$ —	**$ 3,079**	$ 3,008
Affiliated notional cash pooling programs	**—**	—	**361**	272
Long-term debt	**—**	—	**14,879**	14,948
Trust preferred securities	**—**	—	**308**	308
Other liabilities	**337**	323	**1,281**	1,418
Total liabilities	**337**	323	**19,908**	19,954
Total shareholders' equity [2]	**3,204**	3,293	**(19,286)**	(19,293)
Total liabilities and shareholders' equity	**$ 3,541**	$ 3,616	**$ 622**	$ 661

(1) Excludes investment in subsidiary issuer (presented separately).
(2) Total shareholders' equity of Parent Guarantor excludes $55.9 billion and $56.1 billion of investment in subsidiaries, including Subsidiary Issuer, at March 31, 2021 and December 31, 2020, respectively. Total shareholders' equity of Subsidiary Issuer excludes $54.5 billion and $55.2 billion of investment in subsidiaries at March 31, 2021 and December 31, 2020, respectively.

The following table presents the condensed statements of operations and comprehensive income of Chubb Limited and Chubb INA Holdings Inc.:

	Chubb Limited (Parent Guarantor) [1]		Chubb INA Holdings Inc. (Subsidiary Issuer)	
Three Months Ended March 31				
(in millions of U.S. dollars)	**2021**	2020	**2021**	2020
Net investment income (loss)	**$ 1**	$ (2)	**$ 1**	$ 4
Net realized gains (loss)	**13**	(21)	**67**	113
Administrative expenses	**22**	24	**(52)**	(38)
Interest (income) expense	**(34)**	(34)	**145**	148
Other (income) expense	**(13)**	(9)	**(5)**	8
Income tax expense (benefit)	**11**	—	**(22)**	7
Net income (loss) [2]	**$ 28**	$ (4)	**$ 2**	$ (8)
Comprehensive income (loss)	**$ 28**	$ (4)	**$ 1**	$ (38)

(1) Excludes investment in subsidiary issuer (presented separately).
(2) Net income of Parent Guarantor excludes equity in earnings from investment in subsidiaries, including Subsidiary Issuer, of $2,272 million and $256 million for the three months ended March 31, 2021 and 2020, respectively. Net income of Subsidiary Issuer excludes equity in earnings from investment in subsidiaries of $1,031 million and $593 million for the three months ended March 31, 2021 and 2020, respectively.

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 months ended March 31, 2021.

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, 2020 (2020 Form 10-K).

Other Information
We routinely post important information for investors on our website (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.

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. The words “believe,” “anticipate,” “estimate,” “project,” “should,” “plan,” “expect,” “intend,” “hope,” “feel,” “foresee,” “will likely result,” “will continue,” and variations thereof and similar expressions, identify forward-looking statements. 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:

- actual amount of new and renewal business, premium rates, underwriting margins, market acceptance of our products, and risks associated with the introduction of new products and services and entering new markets; 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;
- losses arising out of natural or man-made catastrophes; 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;
- infection rates and severity of COVID-19 and related risks, and their effects on our business operations and claims activity, and any adverse impact to our insureds, brokers, agents, and employees; actual claims may exceed our best estimate of ultimate insurance losses incurred through March 31, 2021 which could change including as a result of, among other things, the impact of legislative or regulatory actions taken in response to COVID-19;
- 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 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;
- uncertainties relating to governmental, legislative and regulatory policies, developments, actions, investigations, and treaties; judicial decisions and rulings, new theories of liability, legal tactics, and settlement terms; the effects of data privacy or cyber laws or regulation; global political conditions and possible business disruption or economic contraction that may result from such events;
- 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; changing rates of inflation; and other general economic and business conditions, including the depth and duration of potential recession;
- the availability of borrowings and letters of credit under our credit facilities; the adequacy of collateral supporting funded high deductible programs; the amount of dividends received from subsidiaries;
- changes to our assessment as to whether it is more likely that not that we will be required to sell, or have the intent to sell, available for sale fixed maturity investments before their anticipated recovery;
- 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 effects of public company bankruptcies and accounting restatements, as well as disclosures by and investigations of public companies relating to possible accounting irregularities, and other corporate governance issues;
- acquisitions made 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 and uncertainties relating to our planned purchases of additional interests in Huatai Insurance Group Co., Ltd. (Huatai Group), including our ability to receive Chinese insurance regulatory approval and complete the purchases;
- 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; share repurchase plans and share cancellations;
- 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).

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.

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 March 31, 2021, we had total assets of $192 billion and shareholders’ equity of $59 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 2020 Form 10-K.

Financial Highlights for the Three Months Ended March 31, 2021

- Net income was $2.3 billion compared with $252 million in the prior year period.
- Total P&C pre-tax and after-tax catastrophe losses were $700 million (9.1 percentage points of the combined ratio) and $570 million, respectively, compared with $237 million (3.3 percentage points of the combined ratio) and $199 million, respectively, in the prior year period. The current quarter included $657 million of winter storm losses in the U.S.
- Total pre-tax and after-tax favorable prior period development were $192 million (2.5 percentage points of the combined ratio) and $156 million, respectively, compared with $118 million (1.7 percentage points of the combined ratio) and $94 million, respectively, in the prior year period.
- The P&C combined ratio was 91.8 percent compared with 89.1 percent in the prior year period. P&C current accident year combined ratio excluding catastrophe losses was 85.2 percent compared with 87.5 percent in the prior year period.
- Consolidated net premiums written were $8.7 billion, up 8.6 percent, or 7.0 percent in constant dollars. P&C net premiums written were $8.0 billion, up 9.7 percent, or up 8.1 percent in constant dollars, comprising 15.6 percent positive growth in commercial P&C lines and 2.5 percent negative growth in consumer lines.
- Consolidated net premiums earned were $8.2 billion, up 5.5 percent, or 4.2 percent in constant dollars. P&C net premiums earned increased 6.5 percent, comprising positive growth of 11.3 percent in commercial P&C lines and negative growth of 2.8 percent in consumer lines.
- Operating cash flow was $2,105 million compared with $1,712 million in the prior year period. Refer to the Liquidity section for additional information on our cash flows.
- Net investment income was $863 million compared with $861 million in the prior year period.
- Share repurchases totaled $519 million during the quarter at an average purchase price of $166.75 per share.

Consolidated Operating Results – Three Months Ended March 31, 2021 and 2020

(in millions of U.S. dollars, except for percentages)	Three Months Ended March 31 2021	2020	% Change Q-21 vs. Q-20
Net premiums written	$ **8,662**	$ 7,977	8.6 %
Net premiums written - constant dollars [(1)]			7.0 %
Net premiums earned	**8,221**	7,794	5.5 %
Net investment income	**863**	861	0.2 %
Net realized gains (losses)	**887**	(958)	NM
Total revenues	**9,971**	7,697	29.5 %
Losses and loss expenses	**5,053**	4,485	12.7 %
Policy benefits	**167**	129	29.3 %
Policy acquisition costs	**1,665**	1,615	3.1 %
Administrative expenses	**744**	741	0.4 %
Interest expense	**122**	132	(7.6) %
Other (income) expense	**(490)**	55	NM
Amortization of purchased intangibles	**72**	73	(1.4) %
Total expenses	**7,333**	7,230	1.4 %
Income before income tax	**2,638**	467	NM
Income tax expense	**338**	215	57.0 %
Net income	$ **2,300**	$ 252	NM

NM – not meaningful

(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.

Table of Contents

Net Premiums Written	Three Months Ended March 31		% Change	
(in millions of U.S. dollars, except for percentages)	**2021**	2020	Q-21 vs. Q-20	C$ Q-21 vs. Q-20
Commercial casualty	**$ 1,649**	$ 1,341	23.0 %	21.4 %
Workers' compensation	**563**	586	(4.0)%	(4.0)%
Professional liability	**1,090**	912	19.6 %	17.4 %
Surety	**158**	150	5.5 %	7.8 %
Commercial multiple peril [(1)]	**263**	241	9.4 %	9.4 %
Property and other short-tail lines	**1,594**	1,334	19.5 %	16.1 %
Total Commercial P&C lines	**5,317**	4,564	16.5 %	14.8 %
Agriculture	**183**	157	16.5 %	16.5 %
Personal automobile	**387**	441	(12.4)%	(10.6)%
Personal homeowners	**775**	773	0.3 %	(0.1)%
Personal other	**468**	418	11.9 %	8.1 %
Total Personal lines	**1,630**	1,632	(0.1)%	(0.7)%
Total Property and Casualty lines	**7,130**	6,353	12.2 %	10.9 %
Global A&H lines [(2)]	**982**	1,067	(8.0)%	(10.4)%
Reinsurance lines	**207**	218	(5.1)%	(6.2)%
Life	**343**	339	1.3 %	(0.1)%
Total consolidated	**$ 8,662**	$ 7,977	8.6 %	7.0 %

(1) Commercial multiple peril represents retail package business (property and general liability).
(2) 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 for the three months ended March 31, 2021 reflects growth across most lines of business, partially offset by the adverse impact of the economic contraction resulting from the COVID-19 pandemic.

- The growth in commercial casualty was due to new business and positive rate increases across all regions.
- Workers' compensation experienced lower renewal business in North America reflecting reduced exposures primarily from the COVID-19 pandemic.
- The increase in professional liability was due to new business and positive rate increases primarily in North America and Europe.
- Commercial multiple peril increased due to higher renewal business and positive rate increases in North America.
- Property and other short-tail lines increased due to positive rate increases in Asia, North America and Europe, as well as new business in North America and Europe.
- Personal lines was unfavorably impacted by a decline in automobile lines in North America and Latin America reflecting reduced exposures from the impact of the COVID-19 pandemic and in homeowners lines from reinstatement premiums related to the 2021 winter storm losses in the U.S. Excluding the reinstatement premiums, personal lines increased globally reflecting strong renewal retention in homeowners and recreational marine lines, primarily in the U.S., and in specialty lines, primarily outside the U.S.
- Global A&H lines decreased due to declines in Asia and Latin America, principally from less travel volume due to the COVID-19 pandemic, and in our North American Combined Insurance supplemental A&H program.
- Life insurance reflects growth in our international life operations, principally from new business written in Taiwan, Vietnam and Chile, which was offset by the Chubb Life Re business that has no new business written.

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 was 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. For the three months ended March 31, 2021, net premiums earned increased $427 million, or $330 million on a constant-dollar basis, comprising 10.1 percent positive growth in commercial P&C lines and 4.7 percent negative growth in consumer lines on a constant-dollar basis.

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 losses and affects a significant number of insureds. For events outside of the U.S. and Canada, we generally use a similar definition. We also define losses from certain pandemics, such as COVID-19, as a catastrophe loss.

Prior period development includes adjustments relating to either profit commission reserves or policyholder dividend reserves based on actual claim experience that develops after the policy period ends. The expense adjustments correlate to the prior period loss development on these same policies. Refer to the Non-GAAP Reconciliation section for further information on reinstatement premiums on catastrophe losses and adjustments to prior period development.

	Three Months Ended March 31	
(in millions of U.S. dollars)	**2021**	2020
Catastrophe losses	**$ 700**	$ 237
Favorable prior period development	**$ 192**	$ 118

Catastrophe losses through March 31, 2021 and 2020 were primarily from the following events:

- 2021: Winter storm losses in the U.S. and other severe weather-related events in the U.S. and internationally.
- 2020: Global weather-related events of $224 million (including Tornado in Nashville, Tennessee and other severe weather-related events in the U.S., storms in Australia, Australia wildfires, and other international weather-related events); and COVID-19 pandemic claims of $13 million.

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.

Pre-tax net favorable PPD for the three months ended March 31, 2021 was $192 million, with 19 percent in long-tail lines, principally from accident years 2017 and prior, and 81 percent in short-tail lines, primarily in accident and health, surety, and homeowners lines.

Pre-tax net favorable PPD for the three months ended March 31, 2020 was $118 million, with 28 percent in long-tail lines, principally from accident years 2016 and prior, and 72 percent in short-tail lines. Favorable development for the three months ended March 31, 2020 included a $14 million benefit from crop insurance.

Refer to the prior period development discussion in Footnote 6 to the Consolidated Financial Statements for additional information.

P&C Combined Ratio

In evaluating our segments excluding Life Insurance financial performance, we use the P&C combined ratio. We calculate this ratio by dividing the respective expense amounts by net premiums earned. We do not calculate this ratio for the Life Insurance segment as we do not use this measure to monitor or manage that segment. A P&C combined ratio under 100 percent indicates underwriting income, and a combined ratio exceeding 100 percent indicates underwriting loss.

	Three Months Ended March 31	
	2021	2020
Loss and loss expense ratio		
CAY loss ratio excluding catastrophe losses	**57.2 %**	58.2 %
Catastrophe losses	**9.1 %**	3.3 %
Prior period development	**(2.6)%**	(1.7)%
Loss and loss expense ratio	**63.7 %**	59.8 %
Policy acquisition cost ratio	**19.5 %**	20.0 %
Administrative expense ratio	**8.6 %**	9.3 %
P&C Combined ratio	**91.8 %**	89.1 %

The loss and loss expense ratio increased 3.9 percentage points for the three months ended March 31, 2021 due to higher catastrophe losses, partially offset by higher favorable prior period development.

The CAY loss ratio excluding catastrophe losses decreased 1.0 percentage point for the three months ended March 31, 2021 due to margin improvements coming from earned rate exceeding loss cost trends.

The policy acquisition cost ratio decreased 0.5 percentage points for the three months ended March 31, 2021 primarily due to a change in the mix of business, including less premiums earned from consumer A&H lines that have a higher acquisition cost ratio and higher premiums earned from commercial P&C lines that have a lower acquisition cost ratio.

The administrative expense ratio decreased 0.7 percentage points for the three months ended March 31, 2021 primarily due to lower expenses during the COVID-19 pandemic, reduced pension obligations reflecting favorable market conditions, and the favorable impact of higher net premiums earned.

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 Insurance segment operating results section for further discussion.

For the three months ended March 31, 2021 and 2020, Policy benefits were $167 million and $129 million, respectively, which included separate account liabilities (gains) losses of $4 million and $(56) million, respectively. The offsetting movements of these liabilities are recorded in Other (income) expense on the Consolidated statements of operations. Excluding the separate account gains and losses, Policy benefits were $163 million and $185 million for the three months ended March 31, 2021 and 2020, respectively, reflecting a decline in our North America Combined Insurance and Chubb Life Re business, partially offset by growth in International Life operations.

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

Segment Operating Results – Three Months Ended March 31, 2021 and 2020

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 2020 Form 10-K.

North America Commercial P&C Insurance

The North America Commercial P&C Insurance segment comprises operations that provide property and casualty (P&C) and accident & health (A&H) 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 (large corporate accounts and wholesale business), and the North America Commercial Insurance division (principally middle market and small commercial accounts).

	Three Months Ended March 31		% Change
(in millions of U.S. dollars, except for percentages)	**2021**	2020	Q-21 vs. Q-20
Net premiums written	**$ 3,664**	$ 3,252	12.7 %
Net premiums earned	**3,674**	3,376	8.8 %
Losses and loss expenses	**2,560**	2,181	17.4 %
Policy acquisition costs	**514**	492	4.4 %
Administrative expenses	**254**	259	(1.5) %
Underwriting income	**346**	444	(22.1) %
Net investment income	**540**	525	2.9 %
Other (income) expense	**2**	6	(52.2) %
Segment income	**$ 884**	$ 963	(8.3) %
Loss and loss expense ratio:			
CAY loss ratio excluding catastrophe losses	**63.4 %**	64.2 %	(0.8) pts
Catastrophe losses	**9.9 %**	3.5 %	6.4 pts
Prior period development	**(3.6)%**	(3.1)%	(0.5) pts
Loss and loss expense ratio	**69.7 %**	64.6 %	5.1 pts
Policy acquisition cost ratio	**14.0 %**	14.6 %	(0.6) pts
Administrative expense ratio	**6.9 %**	7.6 %	(0.7) pts
Combined ratio	**90.6 %**	86.8 %	3.8 pts

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	Three Months Ended March 31 2021	2020
Catastrophe losses	**$ 362**	$ 118
Favorable prior period development	**$ 127**	$ 105

Catastrophe losses through March 31, 2021 and 2020 were primarily from the following events:

- 2021: Winter storm losses and other severe weather-related events in the U.S.
- 2020: Nashville, Tennessee tornado and other severe weather-related events in the U.S.

Refer to the prior period development discussion in Note 6 to the Consolidated Financial Statements for additional information.

Premiums

Net premiums written increased $412 million, or 12.7 percent, for the three months ended March 31, 2021 comprising positive growth of 14.7 percent in commercial P&C lines and negative growth of 18.5 percent in consumer lines. The growth in commercial P&C lines reflects positive rate increases, net of exposure declines, and growth in new business written across a number of retail and wholesale lines, including financial lines, property, excess casualty, and large risk casualty. This was partially offset by lower new business and exposure declines in A&H, impacting our consumer lines.

Net premiums earned increased $298 million, or 8.8 percent, for the three months ended March 31, 2021, reflecting the growth in net premiums written described above.

Combined Ratio

The loss and loss expense ratio increased 5.1 percentage points for the three months ended March 31, 2021, primarily due to higher catastrophe losses, partially offset by higher favorable prior period development. The CAY loss ratio excluding catastrophe losses decreased 0.8 percentage points for the three months ended March 31, 2021 primarily due to margin improvements coming from earned rate exceeding loss cost trends.

The policy acquisition cost ratio decreased 0.6 percentage points for the three months ended March 31, 2021 primarily due to a change in mix of business towards lines that have a lower acquisition cost ratio.

The administrative expense ratio decreased 0.7 percentage points for the three months ended March 31, 2021, primarily due to continued expense management and the shutdown associated with the COVID-19 pandemic, as well as reduced pension obligations reflecting favorable market conditions.

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.

(in millions of U.S. dollars, except for percentages)	Three Months Ended March 31 2021	2020	% Change Q-21 vs. Q-20
Net premiums written	**$ 1,098**	$ 1,107	(0.8) %
Net premiums earned	**1,184**	1,200	(1.3) %
Losses and loss expenses	**819**	683	19.8 %
Policy acquisition costs	**247**	245	1.0 %
Administrative expenses	**60**	68	(12.0) %
Underwriting income	**58**	204	(71.6) %
Net investment income	**65**	66	(2.4) %
Other (income) expense	**1**	2	(49.4) %
Amortization of purchased intangibles	**3**	3	—
Segment income	**$ 119**	$ 265	(55.2) %
Loss and loss expense ratio:			
CAY loss ratio excluding catastrophe losses	**53.2 %**	55.1 %	(1.9) pts
Catastrophe losses	**19.3 %**	1.8 %	17.5 pts
Prior period development	**(3.3)%**	0.1 %	(3.4) pts
Loss and loss expense ratio	**69.2 %**	57.0 %	12.2 pts
Policy acquisition cost ratio	**20.9 %**	20.4 %	0.5 pts
Administrative expense ratio	**5.0 %**	5.6 %	(0.6) pts
Combined ratio	**95.1 %**	83.0 %	12.1 pts

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	Three Months Ended March 31 2021	2020
Catastrophe losses	**$ 240**	$ 21
Favorable (unfavorable) prior period development	**$ 40**	$ (1)

Catastrophe losses through March 31, 2021 were primarily from winter storm losses and other severe weather-related events in the U.S.

Refer to the prior period development discussion in Note 6 to the Consolidated Financial Statements for additional information.

Premiums

Net premiums written decreased $9 million, or 0.8 percent, for the three months ended March 31, 2021, primarily due to the unfavorable impact of reinstatement premiums of $23 million related to 2021 winter storm losses and automobile return premiums as mandated by certain states due to the slowdown in miles driven as a result of the COVID-19 pandemic. This decrease was partially offset by strong renewal retention, principally in homeowners and recreational marine lines.

Net premiums earned decreased $16 million, or 1.3 percent, for the three months ended March 31, 2021, reflecting the decline in net premiums written described above.

Combined Ratio
The loss and loss expense ratio increased 12.2 percentage points for the three months ended March 31, 2021, primarily due to higher catastrophe losses, partially offset by favorable prior period development. The CAY loss ratio excluding catastrophe losses decreased 1.9 percentage points reflecting a favorable year-over-year loss ratio improvement in automobile, due to lower claim frequency, and in homeowners as earned rate exceeded loss cost trends.

The policy acquisition cost ratio increased 0.5 percentage points for the three months ended March 31, 2021, primarily due to the unfavorable impact of reinstatement premiums on net premiums earned.

The administrative expense ratio decreased 0.6 percentage points for the three months ended March 31, 2021, primarily due to continued expense management and the shutdown associated with the COVID-19 pandemic, as well as reduced pension obligations reflecting favorable market conditions.

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.

	Three Months Ended March 31		% Change
(in millions of U.S. dollars, except for percentages)	**2021**	2020	Q-21 vs. Q-20
Net premiums written	**$ 183**	$ 157	16.5 %
Net premiums earned	**110**	94	16.7 %
Losses and loss expenses	**85**	65	30.0 %
Policy acquisition costs	**12**	11	12.4 %
Administrative expenses	**3**	4	(23.8) %
Underwriting income	**10**	14	(30.2) %
Net investment income	**7**	9	(18.5) %
Amortization of purchased intangibles	**7**	7	—
Segment income	**$ 10**	$ 16	(36.0) %
Loss and loss expense ratio:			
CAY loss ratio excluding catastrophe losses	**71.2 %**	76.2 %	(5.0) pts
Catastrophe losses	**7.4 %**	8.9 %	(1.5) pts
Prior period development	**(1.1)%**	(15.5)%	14.4 pts
Loss and loss expense ratio	**77.5 %**	69.6 %	7.9 pts
Policy acquisition cost ratio	**10.7 %**	11.1 %	(0.4) pts
Administrative expense ratio	**2.7 %**	4.1 %	(1.4) pts
Combined ratio	**90.9 %**	84.8 %	6.1 pts

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)		Three Months Ended March 31 2021		2020
Catastrophe losses	**$**	**8**	$	8
Favorable prior period development	**$**	**2**	$	14

Catastrophe losses through March 31, 2021 and 2020 were primarily from severe weather-related events in the U.S. in Chubb Agribusiness.

Refer to the prior period development discussion in Note 6 to the Consolidated Financial Statements for additional information.

For the three months ended March 31, 2021, net favorable prior period development comprised a $2 million increase in net premiums earned related to the MPCI profit and loss calculation formula. For the three months ended March 31, 2020, net favorable prior period development was $14 million which included $17 million of favorable incurred losses due to lower than expected MPCI losses for the 2019 crop year, partially offset by a $3 million decrease in net premiums earned related to the MPCI profit and loss calculation formula.

Premiums
Net premiums written increased $26 million, or 16.5 percent, for the three months ended March 31, 2021, due to policy count growth and higher commodity prices in our MPCI business, and strong new business growth in Chubb Agribusiness.

Net premiums earned increased $16 million, or 16.7 percent, for the three months ended March 31, 2021, reflecting the growth in net premiums written described above.

Combined Ratio
The loss and loss expense ratio increased 7.9 percentage points for the three months ended March 31, 2021, primarily due to lower favorable prior period development. The CAY loss ratio excluding catastrophe losses decreased 5.0 percentage points due to higher premiums earned from Chubb Agribusiness, which has a lower loss ratio, the favorable year-over-year impact of our crop derivatives, and lower underlying losses in Chubb Agribusiness.

The policy acquisition cost ratio decreased 0.4 percentage points for the three months ended March 31, 2021, primarily due to the favorable impact of higher net premiums earned.

The administrative expense ratio decreased 1.4 percentage points for the three months ended March 31, 2021, primarily due to continued expense management and the shutdown associated with the COVID-19 pandemic and the favorable impact of higher net premiums earned.

Overseas General Insurance

Overseas General Insurance segment comprises Chubb International and Chubb Global Markets (CGM). Chubb International comprises our international 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.

	Three Months Ended March 31		% Change
(in millions of U.S. dollars, except for percentages)	**2021**	2020	Q-21 vs. Q-20
Net premiums written	**$ 2,890**	$ 2,598	11.2 %
Net premiums written - constant dollars			7.1 %
Net premiums earned	**2,478**	2,307	7.4 %
Losses and loss expenses	**1,263**	1,258	0.4 %
Policy acquisition costs	**668**	642	4.1 %
Administrative expenses	**266**	258	3.0 %
Underwriting income	**281**	149	88.3 %
Net investment income	**141**	145	(2.6) %
Other (income) expense	**1**	4	(78.8) %
Amortization of purchased intangibles	**12**	12	—
Segment income	**$ 409**	$ 278	47.0 %
Loss and loss expense ratio:			
CAY loss ratio excluding catastrophe losses	**49.9 %**	50.8 %	(0.9) pts
Catastrophe losses	**2.1 %**	3.8 %	(1.7) pts
Prior period development	**(1.0)%**	(0.1)%	(0.9) pts
Loss and loss expense ratio	**51.0 %**	54.5 %	(3.5) pts
Policy acquisition cost ratio	**27.0 %**	27.8 %	(0.8) pts
Administrative expense ratio	**10.7 %**	11.2 %	(0.5) pts
Combined ratio	**88.7 %**	93.5 %	(4.8) pts

Catastrophe Losses and Prior Period Development

	Three Months Ended March 31	
(in millions of U.S. dollars)	**2021**	2020
Catastrophe losses	**$ 50**	$ 90
Favorable prior period development	**$ 25**	$ 4

Catastrophe losses through March 31, 2021 and 2020 were primarily from the following events:

- 2021: Winter storm losses in the U.S. and International weather-related events
- 2020: Storms in Australia, Australia wildfires, and other international weather-related events; and COVID-19 pandemic claims of $13 million.

Refer to the prior period development discussion in Note 6 to the Consolidated Financial Statements for additional information.

Net Premiums Written by Region (in millions of U.S. dollars, except for percentages) *Region*	**2021**	**2021 % of Total**	2020	2020 % of Total	C$ 2020	Q-21 vs. Q-20	C$ Q-21 vs. Q-20
	Three months ended March 31						
Europe	**$ 1,516**	**52 %**	$ 1,228	47 %	$ 1,313	23.4 %	15.4 %
Latin America	**537**	**19 %**	583	22 %	557	(8.0)%	(3.7)%
Asia	**761**	**26 %**	688	27 %	727	10.6 %	4.6 %
Other (1)	**76**	**3 %**	99	4 %	100	(22.5)%	(23.2)%
Net premiums written	**$ 2,890**	**100 %**	$ 2,598	100 %	$ 2,697	11.2 %	7.1 %

(1) Comprises Combined International, Eurasia and Africa region, and other international.

Premiums

Net premiums written increased $292 million, or $193 million on a constant-dollar basis, for the three months ended March 31, 2021, reflecting growth in commercial P&C lines of 15.2 percent, primarily in Europe and Asia, most notably in casualty, resulting from new business and positive rate increases. Net premiums written also reflected a decline in consumer lines of 4.2 percent, primarily automobile in Latin America, and A&H in Asia, resulting from less travel volume and lower exposures, partially offset by personal lines growth in Europe, principally in specialty personal lines.

Net premiums earned increased $171 million, or $89 million on a constant-dollar basis, for the three months ended March 31, 2021, reflecting the increase in net premiums written described above.

Combined Ratio

The loss and loss expense ratio decreased 3.5 percentage points for the three months ended March 31, 2021, primarily due to lower catastrophe losses and higher favorable prior period development. The CAY loss ratio excluding catastrophe losses decreased 0.9 percentage points primarily due to margin improvements coming from earned rates exceeding loss cost trends and a benefit from lower current accident year losses resulting from a decrease in exposures due to the COVID-19 pandemic. The decrease was partially offset by lower premiums earned from A&H lines which have a lower loss ratio.

The policy acquisition cost ratio decreased 0.8 percentage points for the three months ended March 31, 2021, primarily due to a change in the mix of business, including less premiums earned from consumer A&H lines that have a higher acquisition cost ratio and higher premiums earned from commercial P&C lines that have a lower acquisition cost ratio.

The administrative expense ratio decreased 0.5 percentage points for the three months ended March 31, 2021, primarily due to the favorable impact of higher net premiums earned.

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 primarily through reinsurance brokers under the Chubb Tempest Re brand name and provides a broad range of traditional and non-traditional reinsurance coverage to a diverse array of primary P&C companies.

	Three Months Ended March 31		% Change
(in millions of U.S. dollars, except for percentages)	**2021**	2020	Q-21 vs. Q-20
Net premiums written	**$ 207**	$ 218	(5.1) %
Net premiums written - constant dollars			(6.2) %
Net premiums earned	**180**	186	(3.3) %
Losses and loss expenses	**120**	87	39.2 %
Policy acquisition costs	**45**	45	—
Administrative expenses	**8**	10	(14.8) %
Underwriting income	**7**	44	(85.3) %
Net investment income	**70**	69	2.0 %
Segment income	**$ 77**	$ 113	(32.2) %
Loss and loss expense ratio:			
CAY loss ratio excluding catastrophe losses	**48.3 %**	50.4 %	(2.1) pts
Catastrophe losses	**23.8 %**	—	23.8 pts
Prior period development	**(5.2)%**	(3.9)%	(1.3) pts
Loss and loss expense ratio	**66.9 %**	46.5 %	20.4 pts
Policy acquisition cost ratio	**24.9 %**	24.5 %	0.4 pts
Administrative expense ratio	**4.6 %**	5.1 %	(0.5) pts
Combined ratio	**96.4 %**	76.1 %	20.3 pts

Catastrophe Losses and Prior Period Development

	Three Months Ended March 31	
(in millions of U.S dollars)	**2021**	2020
Catastrophe losses	**$ 40**	$ —
Favorable prior period development	**$ 7**	$ 7

Catastrophe losses through March 31, 2021 were primarily from winter storm losses in the U.S.

Refer to the prior period development discussion in Note 6 to the Consolidated Financial Statements for additional information.

Premiums
More new business was written in the three months ended March 31, 2021 compared to the prior year. However, net premiums written decreased $11 million for the three months ended March 31, 2021, mainly from timing of premium recognition associated with a change in the mix of business. Some treaties written in the prior year, for which premiums were recognized at the effective date, were not renewed and were offset by new business, for which premiums are recognized over the treaty term.

For the three months ended March 31, 2021, net premiums earned decreased $6 million, reflecting the change in mix of business and the timing of premium recognition, as described above.

Combined Ratio
The loss and loss expense ratio increased 20.4 percentage points for the three months ended March 31, 2021, primarily due to higher catastrophe losses. The CAY loss ratio excluding catastrophe losses decreased by 2.1 percentage points primarily from a shift in mix of business towards lines which have a lower loss ratio.

The policy acquisition cost ratio increased 0.4 percentage points for the three months ended March 31, 2021, primarily due to higher commissions paid on proportional business.

The administrative expense ratio decreased 0.5 percentage points for the three months ended March 31, 2021, primarily due to lower employee benefit-related expenses.

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.

	Three Months Ended March 31		% Change
(in millions of U.S. dollars, except for percentages)	**2021**	2020	Q-21 vs. Q-20
Net premiums written	**$ 620**	$ 645	(3.8) %
Net premiums written - constant dollars			(4.7) %
Net premiums earned	**595**	631	(5.7) %
Losses and loss expenses	**198**	202	(1.7) %
Policy benefits	**163**	185	(12.3) %
Policy acquisition costs	**179**	180	(0.5) %
Administrative expenses	**82**	76	7.7 %
Net investment income	**98**	95	3.3 %
Life Insurance underwriting income	**71**	83	(14.3) %
Other (income) expense	**(34)**	(12)	190.3 %
Amortization of purchased intangibles	**1**	1	—
Segment income	**$ 104**	$ 94	11.2 %

Premiums
Net premiums written decreased $25 million, or $31 million on a constant-dollar basis for the three months ended March 31, 2021. This decrease reflects the adverse impact of the COVID-19 pandemic on our North America Combined Insurance business of 9.4 percent, and a decline in our Chubb Life Re business which continues to decline as no new life reinsurance business is currently being written. These decreases were partially offset by growth in our International Life operations of 9.8 percent, principally in Asia, from new business in Taiwan and Vietnam, and Chile.

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

	Three Months Ended March 31			% Change	
(in millions of U.S. dollars, except for percentages)	**2021**	2020	C$ 2020	Q-21 vs. Q-20	C$ Q-21 vs. Q-20
Deposits collected on Universal life and investment contracts	**$ 551**	$ 443	$ 470	24.4 %	17.3 %

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 $108 million for the three months ended March 31, 2021, primarily due to growth in Taiwan.

Life Insurance underwriting income and Segment income
Life Insurance underwriting income decreased $12 million for the three months ended March 31, 2021, primarily due to a one-time employee related benefit of $7 million in the prior year. Segment income increased $10 million for the three months ended March 31, 2021, as the decline in life insurance underwriting income was offset by higher other income, principally due to our share of net income from our investment in Huatai, our partially-owned insurance entity in China.

Corporate

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

(in millions of U.S. dollars, except for percentages)	Three Months Ended March 31 2021	2020	% Change Q-21 vs. Q-20
Losses and loss expenses	**$ 9**	$ 11	(22.9) %
Administrative expenses	**71**	66	5.2 %
Underwriting loss	**80**	77	1.2 %
Net investment income (loss)	**(17)**	(24)	(25.9) %
Interest expense	**122**	132	(7.6) %
Net realized gains (losses)	**888**	(956)	NM
Other (income) expense	**(415)**	23	NM
Amortization of purchased intangibles	**49**	50	(3.0) %
Income tax expense	**338**	215	57.0 %
Net income (loss)	**$ 697**	$ (1,477)	NM

NM - not meaningful

Administrative expenses increased $5 million for the three months ended March 31, 2021, primarily due to increased spending to support digital growth initiatives.

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

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, net of valuation allowance.

The effect of market movements on our fixed maturities portfolio impacts Net income (through Net realized gains (losses)) when securities are sold, when we write down an asset, or when we record a change to the valuation allowance for expected credit losses. For a further discussion related to how we assess the valuation allowance for expected credit losses and the related impact on Net income, refer to Note 1 e) to the Consolidated Financial Statements in our 2020 Form 10-K. Additionally, Net income is impacted through the reporting of changes in the fair value of equity securities, private equity funds where we own less than three percent, and 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 obligations 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):

	Three Months Ended March 31					
	2021			2020		
(in millions of U.S. dollars)	**Net Realized Gains (Losses)**	**Net Unrealized Gains (Losses)**	**Net Impact**	Net Realized Gains (Losses)	Net Unrealized Gains (Losses)	Net Impact
Fixed maturities	**$ 24**	**$ (2,317)**	**$ (2,293)**	$ (319)	$ (2,160)	$ (2,479)
Fixed income and equity derivatives	**109**	**—**	**109**	15	—	15
Public equity						
Sales	**45**	**—**	**45**	(24)	—	(24)
Mark-to-market	**322**	**—**	**322**	(5)	—	(5)
Private equity (less than 3 percent ownership)						
Mark-to-market	**38**	**—**	**38**	5	—	5
Total investment portfolio	**538**	**(2,317)**	**(1,779)**	(328)	(2,160)	(2,488)
Variable annuity reinsurance derivative transactions, net of applicable hedges	**275**	**—**	**275**	(560)	—	(560)
Other derivatives	**(1)**	**—**	**(1)**	(2)	—	(2)
Foreign exchange	**76**	**22**	**98**	(68)	(859)	(927)
Other	**(1)**	**(28)**	**(29)**	—	(14)	(14)
Net gains (losses), pre-tax	**$ 887**	**$ (2,323)**	**$ (1,436)**	$ (958)	$ (3,033)	$ (3,991)

The $1,779 million loss in our investment portfolio was principally a result of a rise in fixed income yields during the quarter, partially offset by positive global equity returns.

The variable annuity reinsurance derivative transactions consist of changes in the fair value of GLB liabilities and gain or losses on other derivative instruments we maintain that decrease in fair value when the S&P 500 index increases. The variable annuity reinsurance derivative transactions resulted in realized gains of $275 million for the three months ended March 31, 2021, reflecting a net decrease in the fair value of the GLB liabilities of $319 million due to higher interest rates and higher global equity markets, partially offset by a net realized loss of $44 million related to these other derivatives.

For the three months ended March 31, 2020, the variable annuity reinsurance derivative transactions resulted in realized losses of $560 million, reflecting a net increase in the fair value of GLB liabilities of $685 million and a net realized gain of $125 million related to these other derivative instruments. The net increase in the fair value of GLB liabilities was principally due to lower global equity market levels.

Effective Income Tax Rate

Our effective tax rate for the three months ended March 31, 2021 was 12.8 percent compared to 46.0 percent in the prior year period. Our effective income tax rate reflects a mix of income or losses in jurisdictions with a wide range of tax rates, permanent differences between U.S. GAAP and local tax laws, and the impact of discrete items. A change in the geographic mix of earnings could impact our effective tax rate. The effective tax rate in the current year was lower compared to the prior year primarily due to the impact of realized gains generated in lower tax jurisdictions and a higher discrete tax benefit on employee benefit programs compared to the prior year that had realized losses.

Non-GAAP Reconciliation

In presenting our results, we included and discussed certain non-GAAP measures. These non-GAAP measures, which may be defined differently by other companies, are important for an understanding of our overall results of operations and financial condition. However, they should not be viewed as a substitute for measures determined in accordance with generally accepted accounting principles (GAAP).

Book value per common share, is shareholders' equity divided by the shares outstanding. Tangible book value per common share, is shareholders' equity less goodwill and other intangible assets, net of tax, divided by the shares outstanding. We believe that goodwill and other intangible assets are not indicative of our underlying insurance results or trends and make book value comparisons to less acquisitive peer companies less meaningful. The calculation of tangible book value per share does not consider the embedded goodwill attributable to our investments in partially-owned insurance companies until we attain majority ownership and consolidate.

We provide financial measures, including net premiums written, net premiums earned, and underwriting income on a constant-dollar basis. We believe it is useful to evaluate the trends in our results exclusive of the effect of fluctuations in exchange rates between the U.S. dollar and the currencies in which our international business is transacted, as these exchange rates could fluctuate significantly between periods and distort the analysis of trends. The impact is determined by assuming constant foreign exchange rates between periods by translating prior period results using the same local currency exchange rates as the comparable current period.

P&C performance metrics 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.

P&C combined ratio is the sum of the loss and loss expense ratio, policy acquisition cost ratio and the administrative expense ratio excluding the life business and including the realized gains and losses on the 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 impacts 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 catastrophe losses (CATs) excludes CATs and prior period development (PPD) from the P&C combined ratio. We exclude CATs 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. The combined ratio numerator is adjusted to exclude CATs, net premiums earned adjustments on PPD, prior period expense adjustments and reinstatement premiums on PPD, and the denominator is adjusted to exclude net premiums earned adjustments on PPD and reinstatement premiums on CATs and PPD. 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 believe this measure provides a better evaluation of our underwriting performance and enhances the understanding of the trends in our P&C business that may be obscured by these items. This measure is commonly reported among our peer companies and allows for a better comparison.

Reinstatement premiums are additional premiums paid on certain reinsurance agreements in order to reinstate coverage that had been exhausted by loss occurrences. The reinstatement premium amount is typically a pro rata portion of the original ceded premium paid based on how much of the reinsurance limit had been exhausted.

Net premiums earned adjustments within PPD are adjustments to the initial premium earned on retrospectively rated policies based on actual claim experience that develops after the policy period ends. The premium adjustments correlate to the prior period loss development on these same policies and are fully earned in the period the adjustments are recorded.

Prior period expense adjustments typically relate to adjustable commission reserves or policyholder dividend reserves based on actual claim experience that develops after the policy period ends. The expense adjustments correlate to the prior period loss development on these same policies.

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 March 31, 2021 (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
Numerator								
Losses and loss expenses	**A**	**$ 2,560**	**$ 819**	**$ 85**	**$ 1,263**	**$ 120**	**$ 9**	**$ 4,856**
Catastrophe losses and related adjustments								
Catastrophe losses, net of related adjustments		**(362)**	**(240)**	**(8)**	**(50)**	**(40)**	**—**	**(700)**
Reinstatement premiums collected (expensed) on catastrophe losses		**—**	**(23)**	**—**	**—**	**5**	**—**	**(18)**
Catastrophe losses, gross of related adjustments		**(362)**	**(217)**	**(8)**	**(50)**	**(45)**	**—**	**(682)**
PPD and related adjustments								
PPD, net of related adjustments - favorable (unfavorable)		**127**	**40**	**2**	**25**	**7**	**(9)**	**192**
Net premiums earned adjustments on PPD - unfavorable (favorable)		**—**	**—**	**(2)**	**—**	**—**	**—**	**(2)**
Expense adjustments - unfavorable (favorable)		**3**	**—**	**—**	**—**	**—**	**—**	**3**
PPD reinstatement premiums - unfavorable (favorable)		**—**	**—**	**—**	**—**	**3**	**—**	**3**
PPD, gross of related adjustments - favorable (unfavorable)		**130**	**40**	**—**	**25**	**10**	**(9)**	**196**
CAY loss and loss expense ex CATs	**B**	**$ 2,328**	**$ 642**	**$ 77**	**$ 1,238**	**$ 85**	**$ —**	**$ 4,370**
Policy acquisition costs and administrative expenses								
Policy acquisition costs and administrative expenses	**C**	**$ 768**	**$ 307**	**$ 15**	**$ 934**	**$ 53**	**$ 71**	**$ 2,148**
Expense adjustments - favorable (unfavorable)		**(3)**	**—**	**—**	**—**	**—**	**—**	**(3)**
Policy acquisition costs and administrative expenses, adjusted	**D**	**$ 765**	**$ 307**	**$ 15**	**$ 934**	**$ 53**	**$ 71**	**$ 2,145**
Denominator								
Net premiums earned	**E**	**$ 3,674**	**$ 1,184**	**$ 110**	**$ 2,478**	**$ 180**		**$ 7,626**
Reinstatement premiums (collected) expensed on catastrophe losses		**—**	**23**	**—**	**—**	**(5)**		**18**
Net premiums earned adjustments on PPD - unfavorable (favorable)		**—**	**—**	**(2)**	**—**	**—**		**(2)**
PPD reinstatement premiums - unfavorable (favorable)		**—**	**—**	**—**	**—**	**3**		**3**
Net premiums earned excluding adjustments	**F**	**$ 3,674**	**$ 1,207**	**$ 108**	**$ 2,478**	**$ 178**		**$ 7,645**
P&C Combined ratio								
Loss and loss expense ratio	**A/E**	**69.7 %**	**69.2 %**	**77.5 %**	**51.0 %**	**66.9 %**		**63.7 %**
Policy acquisition cost and administrative expense ratio	**C/E**	**20.9 %**	**25.9 %**	**13.4 %**	**37.7 %**	**29.5 %**		**28.1 %**
P&C Combined ratio		**90.6 %**	**95.1 %**	**90.9 %**	**88.7 %**	**96.4 %**		**91.8 %**
CAY P&C Combined ratio ex CATs								
Loss and loss expense ratio, adjusted	**B/F**	**63.4 %**	**53.2 %**	**71.2 %**	**49.9 %**	**48.3 %**		**57.2 %**
Policy acquisition cost and administrative expense ratio, adjusted	**D/F**	**20.8 %**	**25.4 %**	**13.5 %**	**37.7 %**	**29.7 %**		**28.0 %**
CAY P&C Combined ratio ex CATs		**84.2 %**	**78.6 %**	**84.7 %**	**87.6 %**	**78.0 %**		**85.2 %**
Combined ratio								
Combined ratio								**91.8 %**
Add: impact of gains and losses on crop derivatives								**—**
P&C Combined ratio								**91.8 %**

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.

Three Months Ended March 31, 2020 (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
Numerator								
Losses and loss expenses	**A**	$ 2,181	$ 683	$ 65	$ 1,258	$ 87	$ 11	$ 4,285
Catastrophe losses and related adjustments								
Catastrophe losses, net of related adjustments		(118)	(21)	(8)	(90)	—	—	(237)
Reinstatement premiums collected (expensed) on catastrophe losses		—	—	—	—	—	—	—
Catastrophe losses, gross of related adjustments		(118)	(21)	(8)	(90)	—	—	(237)
PPD and related adjustments								
PPD, net of related adjustments - favorable (unfavorable)		105	(1)	14	4	7	(11)	118
Net premiums earned adjustments on PPD - unfavorable (favorable)		—	—	3	—	—	—	3
Expense adjustments - unfavorable (favorable)		(1)	—	—	—	—	—	(1)
PPD, gross of related adjustments - favorable (unfavorable)		104	(1)	17	4	7	(11)	120
CAY loss and loss expense ex CATs	**B**	$ 2,167	$ 661	$ 74	$ 1,172	$ 94	$ —	$ 4,168
Policy acquisition costs and administrative expenses								
Policy acquisition costs and administrative expenses	**C**	$ 751	$ 313	$ 15	$ 900	$ 55	$ 66	$ 2,100
Expense adjustments - favorable (unfavorable)		1	—	—	—	—	—	1
Policy acquisition costs and administrative expenses, adjusted	**D**	$ 752	$ 313	$ 15	$ 900	$ 55	$ 66	$ 2,101
Denominator								
Net premiums earned	**E**	$ 3,376	$ 1,200	$ 94	$ 2,307	$ 186		$ 7,163
Net premiums earned adjustments on PPD - unfavorable (favorable)		—	—	3	—	—		3
Net premiums earned excluding adjustments	**F**	$ 3,376	$ 1,200	$ 97	$ 2,307	$ 186		$ 7,166
P&C Combined ratio								
Loss and loss expense ratio	**A/E**	64.6 %	57.0 %	69.6 %	54.5 %	46.5 %		59.8 %
Policy acquisition cost and administrative expense ratio	**C/E**	22.2 %	26.0 %	15.2 %	39.0 %	29.6 %		29.3 %
P&C Combined ratio		86.8 %	83.0 %	84.8 %	93.5 %	76.1 %		89.1 %
CAY P&C Combined ratio ex CATs								
Loss and loss expense ratio, adjusted	**B/F**	64.2 %	55.1 %	76.2 %	50.8 %	50.4 %		58.2 %
Policy acquisition cost and administrative expense ratio, adjusted	**D/F**	22.3 %	26.1 %	14.7 %	39.0 %	29.6 %		29.3 %
CAY P&C Combined ratio ex CATs		86.5 %	81.2 %	90.9 %	89.8 %	80.0 %		87.5 %
Combined ratio								
Combined ratio								89.1 %
Add: impact of gains and losses on crop derivatives								—
P&C Combined ratio								89.1 %

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

(in millions of U.S. dollars)	Three Months Ended March 31 2021	2020
Equity in net income of partially-owned entities (1)	**$ 497**	$ 29
Gains (losses) from fair value changes in separate account assets (2)	**4**	(56)
Federal excise and capital taxes	**(5)**	(6)
Other	**(6)**	(22)
Total	**$ 490**	$ (55)

(1) Equity in net income of partially-owned entities includes $49 million and $18 million attributable to our investments in Huatai for the three months ended March 31, 2021 and 2020, respectively.
(2) Related to gains (losses) from fair value changes in separate account assets that do not qualify for separate account reporting under GAAP.

Other income and expense includes equity in net income of partially-owned entities, which includes our share of net income or loss, both underlying operating income and mark-to-market movement, related to partially-owned investment companies (private equity) and partially-owned insurance companies. Also included in Other income and 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 and expense as these are considered capital transactions and are excluded from underwriting results.

Amortization of purchased intangibles and Other amortization

Amortization expense of purchased intangibles was $72 million and $73 million for the three months ended March 31, 2021 and 2020, respectively, and principally relates to the Chubb Corp acquisition.

The following table presents, as of March 31, 2021, the estimated pre-tax amortization expense (benefit) of purchased intangibles, at current foreign currency exchange rates, for the second through fourth quarters of 2021 and the next five years:

	Associated with the Chubb Corp Acquisition				
For the Years Ending December 31 (in millions of U.S. dollars)	Agency distribution relationships and renewal rights	Fair value adjustment on Unpaid losses and loss expenses	Total (1)	Other intangible assets (2)	Total Amortization of purchased intangibles
Second quarter of 2021	$ 54	$ (5)	$ 49	$ 21	$ 70
Third quarter of 2021	54	(5)	49	23	72
Fourth quarter of 2021	54	(5)	49	23	72
2022	198	(14)	184	103	287
2023	179	(7)	172	97	269
2024	160	(6)	154	91	245
2025	145	(6)	139	89	228
2026	131	(6)	125	87	212
Total	$ 975	$ (54)	$ 921	$ 534	$ 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 March 31, 2021, the deferred tax liability associated with Other intangible assets (excluding the fair value adjustment on Unpaid losses and loss expense) was $1,280 million.

The following table presents, as of March 31, 2021, the expected reduction of the deferred tax liability associated with Other intangible assets (which reduces as agency distribution relationships and renewal rights, and other intangible assets amortize), at current foreign currency exchange rates, for the second through fourth quarters of 2021 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
Second quarter of 2021	$ 17
Third quarter of 2021	17
Fourth quarter of 2021	17
2022	67
2023	62
2024	56
2025	52
2026	48
Total	$ 336

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

The following table presents at March 31, 2021, 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 fair value adjustment on assumed long-term debt for the second through fourth quarters of 2021 and for the next five years:

	Amortization (expense) benefit of the fair value adjustment on	
For the Years Ending December 31 (in millions of U.S. dollars)	Acquired invested assets (1)	Assumed long-term debt (2)
Second quarter of 2021	$ (30)	$ 5
Third quarter of 2021	(28)	5
Fourth quarter of 2021	(27)	6
2022	(103)	21
2023	—	21
2024	—	21
2025	—	21
2026	—	21
Total	$ (188)	$ 121

(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.

Net Investment Income

(in millions of U.S. dollars)		Three Months Ended March 31 2021		2020
Fixed maturities (1)	$	**840**	$	851
Short-term investments		**9**		17
Other interest income		**2**		9
Equity securities		**36**		9
Other investments		**23**		20
Gross investment income (1)		**910**		906
Investment expenses		**(47)**		(45)
Net investment income (1)	$	**863**	$	861
(1) Includes amortization expense related to fair value adjustment of acquired invested assets related to the Chubb Corp acquisition	$	**(26)**	$	(32)

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 remained flat for the three months ended March 31, 2021 primarily as higher dividends on public equities were offset by lower interest received due to lower reinvestment rates on new and reinvested assets.

For private equities where we own less than three percent, investment income is included within Net investment income in the table above. For private equities where we own more than three percent, investment income is included within Other income (expense) in the Consolidated statements of operations. Excluded from Net investment income is the mark-to-market movement for private equities, which is recorded within either Other income (expense) or Net realized gains (losses) based on our percentage of ownership. The total mark-to-market movement for private equities excluded from Net investment income was as follows:

(in millions of U.S. dollars)		Three Months Ended March 31 2021		2020
Total mark-to-market gain (loss) on private equity, pre-tax	$	**438**	$	(7)

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 4.3 years and 4.0 years at March 31, 2021 and December 31, 2020, respectively. We estimate that a 100 basis point (bps) increase in interest rates would reduce the valuation of our fixed income portfolio by approximately $4.6 billion at March 31, 2021.

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

(in millions of U.S. dollars)	March 31, 2021 Fair Value	March 31, 2021 Cost/ Amortized Cost, Net	December 31, 2020 Fair Value	December 31, 2020 Cost/ Amortized Cost, Net
Fixed maturities available for sale	$ 91,071	$ 87,858	$ 90,699	$ 85,168
Fixed maturities held to maturity	11,752	11,132	12,510	11,653
Short-term investments	3,735	3,736	4,345	4,349
Fixed income securities	106,558	102,726	107,554	101,170
Equity securities	4,405	4,405	4,027	4,027
Other investments	8,636	8,636	7,945	7,945
Total investments	$ 119,599	$ 115,767	$ 119,526	$ 113,142

The fair value of our total investments increased $73 million during the three months ended March 31, 2021 due to strong operating cash flow, positive equity market returns, and favorable foreign currency movement. This increase was partially offset by unrealized losses on fixed maturities due to an increase in interest rates during the quarter, payment of dividends on our Common Shares, and share repurchases.

The following tables present the fair value of our fixed maturities and short-term investments at March 31, 2021 and December 31, 2020. 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)	March 31, 2021 Fair Value	March 31, 2021 % of Total	December 31, 2020 Fair Value	December 31, 2020 % of Total
U.S. Treasury / Agency	$ 3,724	3 %	$ 4,122	4 %
Corporate and asset-backed securities	38,711	36 %	38,769	36 %
Mortgage-backed securities	21,434	20 %	20,616	19 %
Municipal	11,437	11 %	11,943	11 %
Non-U.S.	27,517	26 %	27,759	26 %
Short-term investments	3,735	4 %	4,345	4 %
Total	$ 106,558	100 %	$ 107,554	100 %
AAA	$ 15,462	15 %	$ 15,622	15 %
AA	35,930	33 %	36,125	33 %
A	19,420	18 %	19,712	18 %
BBB	17,214	16 %	17,542	16 %
BB	9,308	9 %	9,699	9 %
B	8,646	8 %	8,267	8 %
Other	578	1 %	587	1 %
Total	$ 106,558	100 %	$ 107,554	100 %

Corporate and asset-backed securities

The following table presents our 10 largest global exposures to corporate bonds by fair value at March 31, 2021:

(in millions of U.S. dollars)	Fair Value
Wells Fargo & Co	$ 713
Bank of America Corp	646
JP Morgan Chase & Co	617
Verizon Communications Inc	532
Comcast Corp	508
Morgan Stanley	444
AT&T Inc	419
Citigroup Inc	412
Goldman Sachs Group Inc	394
HSBC Holdings Plc	367

Mortgage-backed securities

The following table shows the fair value and amortized cost, net of valuation allowance, of our mortgage-backed securities:

	S&P Credit Rating					Fair Value	Amortized Cost, Net
March 31, 2021 (in millions of U.S. dollars)	AAA	AA	A	BBB	BB and below	Total	Total
Agency residential mortgage-backed securities (RMBS)	$ 118	$ 17,668	$ —	$ —	$ —	$ 17,786	$ 17,156
Non-agency RMBS	193	38	98	34	8	371	368
Commercial mortgage-backed securities	2,862	280	130	2	3	3,277	3,151
Total mortgage-backed securities	$ 3,173	$ 17,986	$ 228	$ 36	$ 11	$ 21,434	$ 20,675

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 SE which is headquartered in France 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 48 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. 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 fair value and amortized cost, net of valuation allowance, of our non-U.S. fixed income portfolio by country/sovereign for non-U.S. government securities at March 31, 2021:

(in millions of U.S. dollars)	Fair Value	Amortized Cost, Net
Republic of Korea	$ 1,019	$ 941
Canada	1,019	1,001
United Kingdom	901	888
Province of Ontario	732	712
Kingdom of Thailand	593	543
United Mexican States	563	558
Province of Quebec	483	465
Federative Republic of Brazil	461	462
Commonwealth of Australia	461	447
Socialist Republic of Vietnam	407	279
Other Non-U.S. Government Securities	5,698	5,516
Total	$ 12,337	$ 11,812

The following table summarizes the fair value and amortized cost, net of valuation allowance, of our non-U.S. fixed income portfolio by country/sovereign for non-U.S. corporate securities at March 31, 2021:

(in millions of U.S. dollars)	Fair Value	Amortized Cost, Net
United Kingdom	$ 2,474	$ 2,377
Canada	1,876	1,806
United States [(1)]	1,218	1,168
France	1,177	1,122
Australia	875	837
Japan	667	652
Germany	623	597
Netherlands	580	556
Switzerland	565	539
China	433	419
Other Non-U.S. Corporate Securities	4,692	4,526
Total	$ 15,180	$ 14,599

(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 March 31, 2021, our corporate fixed income investment portfolio included below-investment grade and non-rated securities which, in total, comprised approximately 15 percent of our fixed income portfolio. Our below-investment grade and non-rated portfolio includes over 1,500 issuers, with the greatest single exposure being $172 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. Fourteen 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 March 31, 2021, 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 2020 Form 10-K.

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, 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)	Gross Losses	Reinsurance Recoverable [(1)]	Net Losses
Balance at December 31, 2020	$ 67,811	$ 14,647	$ 53,164
Losses and loss expenses incurred	6,467	1,414	5,053
Losses and loss expenses paid	(5,100)	(1,207)	(3,893)
Other (including foreign exchange translation)	77	6	71
Balance at March 31, 2021	**$ 69,255**	**$ 14,860**	**$ 54,395**

(1) Net of valuation allowance for uncollectible reinsurance.

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 6 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 months ended March 31, 2021. A&E reserves are included in Corporate. Refer to our 2020 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 4 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, including setting risk limits based on probable maximum loss (PML) and purchasing catastrophe reinsurance. The table below presents our modeled pre-tax estimates of natural catastrophe PML, net of reinsurance, at March 31, 2021, for Worldwide, U.S. hurricane and California earthquake events, based on our in-force portfolio at January 1, 2021 and reflecting the April 1, 2021 reinsurance program (see Natural Catastrophe Property Reinsurance Program section) as well as inuring reinsurance protection coverages. According to the model, for the 1-in-100 return period scenario, there is a one percent chance that our pre-tax annual aggregate losses incurred in any year from U.S. hurricane events could be in excess of $2,707 million (or 4.6 percent of our total shareholders' equity at March 31, 2021). These estimates assume that reinsurance recoverable is fully collectible.

	Modeled Net Probable Maximum Loss (PML) Pre-tax					
	Worldwide [1] Annual Aggregate		U.S. Hurricane [2] Annual Aggregate		California Earthquake [3] Single Occurrence	
(in millions of U.S. dollars, except for percentages)	**Chubb**	**% of Total Shareholders' Equity**	**Chubb**	**% of Total Shareholders' Equity**	**Chubb**	**% of Total Shareholders' Equity**
1-in-10	$ 1,879	3.2 %	$ 1,092	1.8 %	$ 140	0.2 %
1-in-100	$ 3,988	6.8 %	$ 2,707	4.6 %	$ 1,297	2.2 %
1-in-250	$ 6,655	11.3 %	$ 4,905	8.3 %	$ 1,469	2.5 %

(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.
(2) U.S. Hurricane losses include losses from wind and storm-surge and exclude rainfall.
(3) California earthquakes include fire-following perils.

The above estimates of Chubb's loss profile are inherently uncertain for many reasons, including the following:
- 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;
- 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;
- The potential effects of climate change add to modeling complexity; and
- Changing climate conditions could impact our exposure to natural catastrophe risks, including U.S. hurricane. Published studies by leading government, academic and professional organizations predict an increase in the expected annual frequency of Atlantic-basin hurricanes and sea level rise through the end of the century over observed historical averages. These studies contemplate expected multi-decadal impacts of climate change on sea surface temperatures, sea levels and other factors contributing to the frequency and intensity of hurricanes. Based on preliminary stress tests conducted against the Chubb portfolio, the impacts of climate change are not expected to materially impact our reported U.S. hurricane PML over the next 12 months. These tests reflect current exposures only and exclude potential mitigating factors, such as changes to building codes, public or private risk mitigation, regulation and public policy.

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, 2021 through March 31, 2022, with an additional $100 million of limit for international loss occurrences compared to the expiring program. The program consists of three layers in excess of losses retained by Chubb on a per occurrence basis. 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, 2021 through March 31, 2022 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 – $1.15 billion	All natural perils and terrorism	(b)
United States (excluding Alaska and Hawaii)	$1.15 billion – $2.25 billion	All natural perils and terrorism	(c)
United States (excluding Alaska and Hawaii)	$2.25 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 – $1.275 billion	All natural perils and terrorism	(c)
Alaska, Hawaii, and Canada	$1.275 billion – $2.525 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 partially placed with Reinsurers.

(c) These coverages are both part of the same Second layer within the Global Catastrophe Program and are fully placed with Reinsurers.

(d) These coverages are both part of the same Third layer within the Global Catastrophe Program and are fully placed with Reinsurers.

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 to credit facilities with letter of credit capacity of $3.7 billion with a sub-limit of $1.9 billion for revolving credit. At March 31, 2021, our usage under these facilities was $1.4 billion in letters of credit. Our access to credit under these facilities is dependent on the ability of the banks that are a party to the facilities to meet their funding commitments. The facilities require that we maintain certain financial covenants, all of which we met at March 31, 2021. Should the existing credit providers on these facilities 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 facilities.

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 three months ended March 31, 2021, we were able to meet all 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 $740 million and nil from its Bermuda subsidiaries during the three months ended March 31, 2021 and 2020, 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 three months ended March 31, 2021 and 2020. 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 no dividends from its subsidiaries during the three months ended March 31, 2021 and 2020.

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 three months ended March 31, 2021 and 2020.

Operating cash flows were $2.1 billion in the three months ended March 31, 2021, compared to $1.7 billion in the prior year period, an increase of $393 million, principally reflecting higher premiums collected and reduced payment activity, partially offset by higher catastrophe loss payments.

Cash used for investing was $1.3 billion in the three months ended March 31, 2021, compared to $1.0 billion in the prior year period. Cash used in the current year related to net investments purchased, principally fixed maturities. Cash used in the prior year principally related to the incremental purchase of Huatai Group ownership interest of $1.6 billion, partially offset by net proceeds from sales of fixed maturities.

Cash used for financing was $812 million in the three months ended March 31, 2021, compared to $645 million in the prior year period, an increase of $167 million principally from more shares repurchased in the current year.

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.

We use repurchase agreements as a low-cost funding alternative. At March 31, 2021, there were $1.4 billion in repurchase agreements outstanding with various maturities over the next eight months.

Capital Resources

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

(in millions of U.S. dollars, except for ratios)	March 31 2021	December 31 2020
Long-term debt	$ 14,879	$ 14,948
Trust preferred securities	308	308
Total shareholders' equity	59,076	59,441
Total capitalization	$ 74,263	$ 74,697
Ratio of financial debt to total capitalization	20.0 %	20.0 %
Ratio of financial debt plus trust preferred securities to total capitalization	20.4 %	20.4 %

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.

For the three months ended March 31, 2021, we repurchased $519 million of Common Shares in a series of open market transactions under the Board of Directors (Board) share repurchase authorization. At March 31, 2021, there were 27,928,305 Common Shares in treasury with a weighted average cost of $139.68 per share, and $1.98 billion in share repurchase authorization remained through December 31, 2021. For the period April 1, 2021 through April 29, 2021, we repurchased 450,000 Common Shares for a total of $76 million in a series of open market transactions. At April 29, 2021, $1.91 billion in share repurchase authorization remained through December 31, 2021.

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.

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 8 to the Consolidated Financial Statements for a discussion of our dividend methodology.

At our May 2020 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.12 per share, or CHF 3.01 per share, calculated using the USD/CHF exchange rate as published in the Wall Street Journal on May 20, 2020, expected to be paid in four quarterly installments of $0.78 per share after the general meeting by way of a distribution from capital contribution reserves, transferred to free reserves for payment. The Board determines the record and payment dates at which the annual dividend may be paid until the date of the 2021 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion. The four quarterly installments each of $0.78 per share were distributed by the Board as expected. The annual dividend approved in May 2020 represented a $0.12 per share increase ($0.03 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 18, 2020	January 8, 2021	$0.78 (CHF 0.71)
March 19, 2021	April 9, 2021	$0.78 (CHF 0.70)

ITEM 3. Quantitative and Qualitative Disclosures about Market Risk

Refer to Item 7A included in our 2020 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. We occasionally engage in hedging activity 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 2020 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, 2020 balances disclosed in the 2020 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 realized gains (losses) and net income for GLB and both Life Insurance underwriting income and net income for GMDB. 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.

For the GMDB reinsurance business, net income is directly impacted by changes in future policy benefit reserves. For the GLB reinsurance business, 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 calculation is 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 March 31, 2021 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:

- Equity shocks impact all global equity markets equally
  - Our liabilities are sensitive to global equity markets in the following proportions: 80 percent—90 percent U.S. equity, and 10 percent—20 percent international equity.
  - Our current hedge portfolio is sensitive only to U.S. equity markets.
  - 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: 5 percent—15 percent short-term rates (maturing in less than 5 years), 15 percent—25 percent medium-term rates (maturing between 5 years and 10 years, inclusive), and 65 percent—75 percent long-term rates (maturing beyond 10 years).
  - A change in AA-rated credit spreads impacts the rate used to discount cash flows in the fair value model. AA-rated credit spreads are a proxy for both our own credit spreads and the credit spreads of the ceding insurers.

- The hedge sensitivity is from March 31, 2021 market levels and only applicable to the equity and interest rate sensitivities table below.

- 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 fluctuations in short-term market movements.

- 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 FVL will increase, resulting in a realized loss. This realized loss occurs primarily because the guarantees provided in the underlying contracts continue to become more valuable even when markets remain unchanged. We refer to this increase in FVL as “timing effect”. The unfavorable impact of timing effect on our 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 FVL in the second quarter of 2021 to various changes, it is necessary to assume an additional $5 million to $45 million increase in FVL and realized losses. Note that both the timing effect and the quarterly run rate impact to net income change over time as the book ages.

Sensitivities to equity and interest rate movements

(in millions of U.S. dollars)		Worldwide Equity Shock					
Interest Rate Shock		+10%	Flat	-10%	-20%	-30%	-40%
+100 bps	(Increase)/decrease in FVL	$ 331	$ 225	$ 95	$ (71)	$ (275)	$ (530)
	Increase/(decrease) in hedge value	(77)	—	77	154	230	307
	Increase/(decrease) in net income	$ 254	$ 225	$ 172	$ 83	$ (45)	$ (223)
Flat	(Increase)/decrease in FVL	$ 135	$ —	$ (164)	$ (360)	$ (598)	$ (892)
	Increase/(decrease) in hedge value	(77)	—	77	154	230	307
	Increase/(decrease) in net income	$ 58	$ —	$ (87)	$ (206)	$ (368)	$ (585)
-100 bps	(Increase)/decrease in FVL	$ (102)	$ (261)	$ (450)	$ (672)	$ (943)	$ (1,272)
	Increase/(decrease) in hedge value	(77)	—	77	154	230	307
	Increase/(decrease) in net income	$ (179)	$ (261)	$ (373)	$ (518)	$ (713)	$ (965)

Sensitivities to Other Economic Variables

	AA-rated Credit Spreads		Interest Rate Volatility		Equity Volatility	
(in millions of U.S. dollars)	+100 bps	-100 bps	+2%	-2%	+2%	-2%
(Increase)/decrease in FVL	$ 60	$ (68)	$ (1)	$ 1	$ (15)	$ 15
Increase/(decrease) in net income	$ 60	$ (68)	$ (1)	$ 1	$ (15)	$ 15

Sensitivities to Actuarial Assumptions

	Mortality			
(in millions of U.S. dollars)	+20%	+10%	-10%	-20%
(Increase)/decrease in FVL	$ 18	$ 9	$ (9)	$ (18)
Increase/(decrease) in net income	$ 18	$ 9	$ (9)	$ (18)

	Lapses			
(in millions of U.S. dollars)	+50%	+25%	-25%	-50%
(Increase)/decrease in FVL	$ 86	$ 47	$ (52)	$ (110)
Increase/(decrease) in net income	$ 86	$ 47	$ (52)	$ (110)

	Annuitization			
(in millions of U.S. dollars)	+50%	+25%	-25%	-50%
(Increase)/decrease in FVL	$ (393)	$ (208)	$ 229	$ 463
Increase/(decrease) in net income	$ (393)	$ (208)	$ 229	$ 463

Variable Annuity Net Amount at Risk

All our VA reinsurance treaties include annual or aggregate claim limits and many include an aggregate deductible which limit the net amount at risk under these programs. The tables below present the net amount at risk at March 31, 2021 following an immediate change in equity market levels, assuming all global equity markets are impacted equally.

a) Reinsurance covering the GMDB risk only

	Equity Shock					
(in millions of U.S. dollars)	+20 %	Flat	-20 %	-40 %	-60 %	-80 %
GMDB net amount at risk	$ 304	$ 287	$ 382	$ 782	$ 893	$ 760
Claims at 100% immediate mortality	156	165	177	166	148	128

The treaty claim limits function as a ceiling as equity markets fall. As the shocks in the table above become incrementally more negative, the impact on the NAR and claims at 100 percent mortality begin to drop due to the specific nature of these claim limits, many of which are annual claim limits calculated as a percentage of the reinsured account value. There is also some impact due to a small portion of the GMDB reinsurance under which claims are positively correlated to equity markets (claims decrease as equity markets fall).

b) Reinsurance covering the GLB risk only

	Equity Shock					
(in millions of U.S. dollars)	+20 %	Flat	-20 %	-40 %	-60 %	-80 %
GLB net amount at risk	$ 767	$ 1,094	$ 1,666	$ 2,419	$ 2,990	$ 3,373

The treaty claim limits cause the net amount at risk to increase at a declining rate as equity markets fall.

c) Reinsurance covering both the GMDB and GLB risks on the same underlying policyholders

	Equity Shock					
(in millions of U.S. dollars)	+20 %	Flat	-20 %	-40 %	-60 %	-80 %
GMDB net amount at risk	$ 39	$ 47	$ 58	$ 72	$ 86	$ 96
GLB net amount at risk	313	412	550	723	904	1,027
Claims at 100% immediate mortality	37	36	36	36	36	35

The treaty limits control the increase in the GMDB net amount at risk as equity markets fall. The GMDB net amount at risk continues to increase as equity markets fall because most of these reinsurance treaties do not have annual claim limits calculated as a percentage of the underlying account value. The treaty limits cause the GLB net amount at risk to increase at a declining rate as equity markets fall.

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 March 31, 2021. 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 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.

There have been no changes in Chubb's internal controls over financial reporting during the three months ended March 31, 2021 that have materially affected, or are reasonably likely to materially affect, Chubb's internal controls over financial reporting.

ITEM 1. Legal Proceedings

The information required with respect to this item is included in Note 7 g) to the Consolidated Financial Statements, which is hereby incorporated herein by reference.

ITEM 1A. Risk Factors

There have been no material changes to the risk factors described under "Risk Factors" under Item 1A of Part I of our 2020 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 March 31, 2021:

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan (2)	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan (3)
January 1 through January 31	2,503	$ 154.44	—	$ 2.50 billion
February 1 through February 28	2,390,214	$ 165.83	2,208,000	$ 2.14 billion
March 1 through March 31	1,116,522	$ 168.26	902,000	$ 1.98 billion
Total	3,509,239	$ 166.59	3,110,000	

(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 to cover the cost of the exercise of options by employees through stock swaps.

(2) The aggregate value of shares purchased in the three months ended March 31, 2021 as part of the publicly announced plan was $519 million.

(3) In November 2020, the Board authorized the repurchase of up to $1.5 billion of Chubb's Common Shares from November 19, 2020 through December 31, 2021. In February 2021, the Board approved an increase to the November 2020 share repurchase program of $1.0 billion to a total of $2.5 billion, effective through December 31, 2021. For the period April 1, 2021 through April 29, 2021, we repurchased 450,000 Common Shares for a total of $76 million in a series of open market transactions. At April 29, 2021, $1.91 billion in share repurchase authorization remained through December 31, 2021. Refer to Note 8 to the Consolidated Financial Statements for more information on the Chubb Limited securities repurchase authorization.

ITEM 6. Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference Form	Original Number	Date Filed	Filed Herewith
3.1	Articles of Association of the Company, as amended	8-K	3.1	August 4, 2020	
3.2	Organizational Regulations of the Company, as amended	8-K	3.1	November 21, 2016	
4.1	Articles of Association of the Company, as amended	8-K	4.1	August 4, 2020	
4.2	Organizational Regulations of the Company, as amended	8-K	3.1	November 21, 2016	
10.1*	Form of Performance Based Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.82	February 25, 2021	
10.2*	Form of Performance Based Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers	10-K	10.83	February 25, 2021	
22.1	Guaranteed Securities	10-K	22.1	February 25, 2021	
31.1	Certification Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002				X
31.2	Certification Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002				X
32.1	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of The Sarbanes-Oxley Act of 2002				X
32.2	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of The Sarbanes-Oxley Act of 2002				X
101.1	The following financial information from Chubb Limited's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 formatted in Inline XBRL: (i) Consolidated Balance Sheets at March 31, 2021, and December 31, 2020; (ii) Consolidated Statements of Operations and Comprehensive Income for the three months ended March 31, 2021 and 2020; (iii) Consolidated Statements of Shareholders' Equity for the three months ended March 31, 2021 and 2020; (iv) Consolidated Statements of Cash Flows for the three months ended March 31, 2021 and 2020; and (v) Notes to Consolidated Financial Statements				X
104.1	The Cover Page Interactive Data File formatted in Inline XBRL (The cover page XBRL tags are embedded in the Inline XBRL document and included in Exhibit 101.1)				

* Management contract, compensatory plan or arrangement

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)
April 30, 2021	/s/ Evan G. Greenberg
	Evan G. Greenberg
	Chairman and Chief Executive Officer
April 30, 2021	/s/ Philip V. Bancroft
	Philip V. Bancroft
	Executive Vice President and Chief Financial Officer

Exhibit 31.1

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: April 30, 2021

/s/ Evan G. Greenberg

Evan G. Greenberg

Chairman and Chief Executive Officer

Exhibit 31.2

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: April 30, 2021

/s/ Philip V. Bancroft

Philip V. Bancroft
Executive Vice President and Chief Financial Officer

Exhibit 32.1

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

The undersigned officer of Chubb Limited (the Corporation) hereby certifies that the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, fully complies with the applicable reporting requirements of Section 13(a) or Section 15(d) 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.

Date: April 30, 2021	/s/ Evan G. Greenberg
	Evan G. Greenberg
	Chairman and Chief Executive Officer

Exhibit 32.2

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 March 31, 2021, fully complies with the applicable reporting requirements of Section 13(a) or Section 15(d) 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.

Date: April 30, 2021	/s/ Philip V. Bancroft
	Philip V. Bancroft
	Executive Vice President and Chief Financial Officer