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CHUBB EUROPEAN HOLDINGS LIMITED

FINANCIAL STATEMENTS

31 DECEMBER 2020

COMPANY REGISTRATION NUMBER: 05073085

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CHUBB EUROPEAN HOLDINGS LIMITED

DIRECTORS' REPORT FOR THE YEAR ENDED 31 DECEMBER 2020

The directors are pleased to submit their report and the audited financial statements for the year to 31 December 2020.

It should be noted that the Company's financial statements have been prepared in compliance with Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' ("FRS102"), being applicable United Kingdom Generally Accepted Accounting Practice ("UK GAAP").

PRINCIPAL ACTIVITIES

The principal activity of the Company is that of an intermediate holding company within the Chubb Limited Group and it is expected to continue in this capacity for the foreseeable future. The Company is a private company limited by shares, incorporated in England and Wales in the United Kingdom.

PRINCIPAL RISKS AND UNCERTAINTIES

The principal risks and uncertainties affecting the Company are in relation to movements in the valuation of its investments in its principal subsidiary undertakings, Chubb Underwriting (DIFC) Limited ("DIFC") and Chubb European Group SE ("CEGSE"). This risk is mitigated by performing annual impairment reviews.

At 31 December 2020 the stated book cost of each of the Company's investments in DIFC (£809k) and CEGSE (£1,498,212k) is significantly lower than the individual value of each subsidiary's net assets. This is expected to be the case for at least the next 12 months, after taking into account developments around the Covid-19 pandemic and its potential impact on the financial position of the subsidiaries and therefore on the Company itself.

In response to the Covid-19 pandemic, CEGSE took swift actions to minimise risk to employees, including restricting travel and instituting extensive work from home protocols. With respect to clients and business partners, CEGSE sought to minimise any disruption and was able to continue to operate effectively throughout the pandemic and region-wide lockdown restrictions.

As part of the CEGSE annual planning process, including the process for this company, CEGSE conducts scenario analysis for major stress events such as a pandemic. CEGSE employs and monitors risk guidelines to ensure acceptable risk accumulations and CEGSE's capital, earnings and liquidity positions are robust. Although the economic repercussions of the pandemic resulted in adverse impacts to top line growth in some business lines during the year, this was accompanied by a reduction in exposure. CEGSE currently does not foresee any issues in timely satisfying its obligations, including payment of claims.

FUTURE DEVELOPMENTS

The Company continues to act as an intermediate holding company for subsidiary undertakings of the Chubb Limited Group and is expected to do so for the foreseeable future.

RESULTS AND DIVIDENDS

The results for the Company show a profit before taxation of £1,211k (2019: £Nil) and the total shareholders' funds of the Company total £1,516,160k (2019: £1,514,949k).

In 2020 the Company received a liquidation distribution of £1,211k from Chubb Insurance Investment Holdings Ltd (2019: £Nil).

The directors do not recommend the payment of a dividend.

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KEY PERFORMANCE INDICATORS (KPIs)

Given the nature of the business, the Company's directors are of the opinion that analysis using KPIs is not necessary for an understanding of the development, performance or position of the business.

DIRECTORS

The following have been directors from 1 January 2020 to the date of this report unless otherwise indicated:

M A Connole
D M A Furby
A C Mullins (resigned 30 November 2020)
D T Whelan (appointed 30 November 2020)

Qualifying third-party indemnity provisions (as defined by section 234 of the Companies Act 2006) are put in place for the benefit of the directors and, during the reporting period to the date of this report, are in force in relation to certain losses and liabilities which they may incur (or have incurred) in connection with their duties, powers or office.

The Company also has the benefit of a group insurance company management activities policy effected by Chubb Limited. No charge was made to the Company during the year for this policy.

STATEMENT OF DIRECTORS' RESPONSIBILITIES IN RESPECT OF THE FINANCIAL STATEMENTS

The directors are responsible for preparing the Directors' Report and the financial statements in accordance with applicable law and regulation.

Company law requires the directors to prepare financial statements for each financial year. Under that law directors have prepared the financial statements in accordance with United Kingdom Generally Accep Accounting Practice (United Kingdom Accounting Standards, comprising FRS 102 "The Financial Repor Standard applicable in the UK and Republic of Ireland", and applicable law). Under company law the direc must not approve the financial statements unless they are satisfied that they give a true and fair view of state of affairs of the Company and of the profit or loss of the Company for that period. In preparing the finan statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- state whether applicable United Kingdom Accounting Standards, comprising FRS 102, have been followed, subject to any material departures disclosed and explained in the financial statements;
- make judgements and accounting estimates that are reasonable and prudent; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The directors are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies Act 2006.

CHUBB EUROPEAN HOLDINGS LIMITED

DIRECTORS' REPORT FOR THE YEAR ENDED 31 DECEMBER 2020 - continued

STATEMENT AS TO DISCLOSURE OF INFORMATION TO AUDITORS

Each of the persons who is a director at the date of this report confirms that:

1. So far as each of them is aware, there is no information relevant to the audit of the Company's financial statements for the year ended 31 December 2020 of which the auditors are unaware, and;

2. The director has taken all steps that he/she ought to have taken in his/her duty as a director in order to make him/herself aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

INDEPENDENT AUDITORS

The Company's independent auditors, PricewaterhouseCoopers LLP, have indicated their willingness to continue in office.

By Order of the Board

DocuSigned by:
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A E Amana

for and on behalf of
Chubb London Services Limited
Secretary

8 September 2021

100 Leadenhall Street
London
EC3A 3BP

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Independent auditors' report to the members of Chubb European Holdings Limited

Report on the audit of the financial statements

Opinion

In our opinion, Chubb European Holdings Limited's financial statements:

- give a true and fair view of the state of the company's affairs as at 31 December 2020 and of its profit for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland", and applicable law); and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Financial Statements (the "Annual Report"), which comprise: the Balance Sheet as at 31 December 2020; the Profit and Loss Account, and the Statement of Changes in Equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Conclusions relating to going concern

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

However, because not all future events or conditions can be predicted, this conclusion is not a guarantee as to the company's ability to continue as a going concern.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude

that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on our work undertaken in the course of the audit, the Companies Act 2006 requires us also to report certain opinions and matters as described below.

Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Directors' Report for the year ended 31 December 2020 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we did not identify any material misstatements in the Directors' Report.

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Statement of Directors' Responsibilities in Respect of the Financial Statements, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

Based on our understanding of the company and industry, we identified that the principal risks of non-compliance with laws and regulations related to the Companies Act 2006 and UK tax legislation, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the financial statements such as the Companies Act 2006. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting inappropriate journal entries that may impact the financial performance and position of the company, and management bias in accounting estimates and judgemental areas of the financial statements. Audit procedures performed by the engagement team included:

- discussions with senior management involved in the Legal and Internal Audit functions, including consideration of known or suspected instances of non-compliance with laws and regulation and fraud;
- assessment of any matters reported on the company's whistleblowing helpline and the results of management's investigation of such matters;
- reviewing relevant meeting minutes including the Board meetings;
- reviewing financial statement disclosures and testing to supporting documentation to assess compliance with applicable laws and regulations;
- designing audit procedures to incorporate unpredictability around the nature, timing or extent of our testing; and
- auditing the risk of management override of controls, including through testing journal entries and other adjustments for appropriateness, testing accounting estimates (because of the risk of management bias), and evaluating the business rationale of significant transactions outside the normal course of business.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not obtained all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the financial statements are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Entitlement to exemptions

Under the Companies Act 2006 we are required to report to you if, in our opinion, the directors were not entitled to: take advantage of the small companies exemption from preparing a strategic report. We have no exceptions to report arising from this responsibility.

Siobhan Byrne (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
8 September 2021

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CHUBB EUROPEAN HOLDINGS LIMITED

PROFIT AND LOSS ACCOUNT
FOR THE YEAR ENDED 31 DECEMBER 2020

	Note	2020 £'000	2019 £'000
Turnover	2	1,211	-
PROFIT BEFORE TAXATION		1,211	-
Tax on profit	5	-	-
PROFIT FOR THE FINANCIAL YEAR		1,211	-

All of the above results derive from continuing operations.

The Company has no other income in the current or prior year than that presented and hence no separate Statement of Other Comprehensive Income is presented.

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CHUBB EUROPEAN HOLDINGS LIMITED

BALANCE SHEET AS AT 31 DECEMBER 2020

	Note	2020 £'000	2019 £'000
FIXED ASSETS			
Investments	6	1,499,021	1,499,021
DEBTORS: AMOUNTS FALLING DUE WITHIN ONE YEAR			
Debtors	7	16,982	19,128
Cash at bank and in hand		1,270	64
TOTAL CURRENT ASSETS		18,252	19,192
CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR			
Other Creditors including taxation and Social Security	8	(1,113)	(3,264)
NET CURRENT ASSETS		17,139	15,928
TOTAL ASSETS LESS CURRENT LIABILITIES		1,516,160	1,514,949
NET ASSETS		1,516,160	1,514,949
CAPITAL AND RESERVES			
Called up share capital	9	321,157	321,157
Profit and loss account		1,195,003	1,193,792
TOTAL SHAREHOLDERS' FUNDS		1,516,160	1,514,949

The notes on pages 10 to 14 are an integral part of these financial statements.

The financial statements on pages 7 to 14 were approved by the board of directors on 8 September 2021 and were signed on its behalf by:

DocuSigned by:
[redacted]

Director
8 September 2021

COMPANY REGISTRATION NUMBER: 05073085

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CHUBB EUROPEAN HOLDINGS LIMITED

STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBER 2020

	Called-up share capital	Profit and loss account	Total shareholders' funds
	£'000	£'000	£'000
AT 1 JANUARY 2019	321,157	1,193,792	1,514,949
Profit for the financial year	-	-	-
Dividends paid	-	-	-
AT 31 DECEMBER 2019	321,157	1,193,792	1,514,949
Profit for the financial year	-	1,211	1,211
Dividends paid	-	-	-
AT 31 DECEMBER 2020	321,157	1,195,003	1,516,160

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CHUBB EUROPEAN HOLDINGS LIMITED

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2020

1. ACCOUNTING POLICIES

Basis of preparation

Chubb European Holdings Limited is a private limited company incorporated in England and Wales, United Kingdom. The financial statements have been prepared on a going concern basis, under the historical cost convention and in accordance with the Companies Act 2006 and applicable accounting standards in the United Kingdom, being Financial Reporting Standard FRS 102 ("The Financial Reporting Standard applicable in the United Kingdom and the Republic of Ireland" ("FRS 102")). The Company is a wholly owned subsidiary within the Chubb Limited Group and is included in the consolidated financial statements of Chubb Limited, which are publicly available. Consequently, the Company has taken advantage of the exemption from preparing a cash flow statement and disclosing details of key management personnel and related party transactions under the terms of FRS102.

The Company has taken advantage of the exemption under Section 401 of the Companies Act 2006 from the requirement to prepare and deliver consolidated financial statements as it and its subsidiary undertakings are wholly-owned subsidiaries within the Chubb Limited Group and are included within the consolidated financial statements of Chubb Limited.

The Company has also taken advantage of the exemption under Section 414A of the Companies Act 2006 from the requirement to present a Strategic Report in the financial statements as the Company meets the criteria to prepare accounts in accordance with the small companies regime for the current accounting period.

The principal accounting policies, which have been applied consistently throughout the year, are set out below:

Dividends

Interim dividends payable are recognised when paid and final dividends when declared.

Interest receivable and similar income

Interest receivable is accounted for on an accruals basis.

Interest payable

Interest payable is accounted for on an accruals basis.

Debtors

Short term debtors are measured at transaction price, less any impairment.

Creditors

Short term creditors are measured at the transaction price.

Intercompany balances

Intercompany balances are stated by entity with the right to offset debtor and creditor balances within the same legal entity.

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Investments

Investments in group undertakings are measured at cost less accumulated impairments.

Foreign currencies

Foreign currency transactions are accounted for, in functional currency, at the exchange rates prevailing at the date of the transactions. Gains and losses resulting from the settlement of such transactions, from translating such transactions into the functional currency of the entity, and from the revaluation to year end exchange rates of monetary assets and liabilities, are recognised in the profit and loss account.

At each period end foreign currency monetary items are translated using the closing rate. Non-monetary items measured at historical cost are translated using the exchange rate at the date of the transaction and non-monetary items measured at fair value are measured using the exchange rate when fair value was determined.

2. TURNOVER

Turnover consists of liquidation distributions from subsidiary companies that have been liquidated during the year.

3. DIRECTORS AND EMPLOYEES

The Company has no employees (2019: None) and no emoluments were paid by the Company to any of its directors during the year (2019: £Nil). The emoluments of the directors are paid by an associated company. The services of the directors and other key management personnel to the Company are incidental and their emoluments are deemed to be wholly attributable to their services to other group companies. Accordingly, no disclosures of emoluments have been made in these financial statements.

4. ADMINISTRATIVE EXPENSES

The following fees are payable to the Company's auditors for the audit and other services provided to the Company and its associates and are borne by Chubb Services UK Limited:

	2020	2019
	£'000	£'000
Audit fees:		
Fees payable to the Company's auditors for the audit of the Company's financial statements	7	6
Fees payable to the Company's auditors for other services:		
Audit related assurance services	-	-
Tax compliance services	-	-
Tax advisory services	-	-
Other non-audit services	-	-
Total	7	6

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5 TAX ON PROFIT

(a) Analysis of tax charge in year

	2020	2019
	£'000	£'000
Current Tax	-	-
Total tax (note 5(b))	-	-

(b) Factors affecting tax charge for year

The tax assessed for the year is lower (2019: lower) than the standard rate of corporation tax in the UK of 19% (2019: 19%). The differences are explained below:

	2020 £'000	2019 £'000
Profit before taxation	1,211	-
Profit multiplied by standard rate of corporation tax in the UK of 19% (2019: 19%)	230	-
Effects of: Liquidation distribution	(230)	-
Total tax charge for year (note 5(a))	-	-

Finance Bill 2021 sets out that the main rate of Corporation Tax is to increase from 10% to 25% effective 1 April 2023. This was substantively enacted on 24 May 2021, which is after the accounting period and therefore the change is not reflected in these financial statements. However, this change will increase the company's future tax charge (or benefit) accordingly.

6. INVESTMENTS

	2020	2019
	£'000	£'000
Investment in Chubb European Group SE	1,498,212	1,498,212
Investment in Chubb Underwriting (DIFC) Limited	809	809
	1,499,021	1,499,021

7. DEBTORS

	2020	2019
	£'000	£'000
Amounts owed by group undertakings	16,982	19,128
	16,982	19,128

Amounts owed by group undertakings are unsecured, interest free, have no fixed date of repayment and are repayable on demand.

8. OTHER CREDITORS INCLUDING TAXATION AND SOCIAL SECURITY

	2020 £'000	2019 £'000
Taxation and social security	-	(1)
Amounts owed to group undertakings	(1,113)	(3,263)
	(1,113)	(3,264)

Amounts owed to group undertakings are unsecured, interest free, have no fixed date of repayment and are repayable on demand.

9. CALLED UP SHARE CAPITAL

	2020 £'000	2019 £'000
Allotted, issued and fully paid:		
321,157,323 (2019: 321,157,323) Ordinary £1 shares		
	321,157	321,157

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10. ADDITIONAL INFORMATION IN RELATION TO NOTE 6 TO THE FINANCIAL STATEMENTS

Subsidiary undertakings as at 31 December 2020 were as follows:

Subsidiaries	Key activity	Country of Incorporation	Percentage of nominal value held by the Company
Chubb FIJ Holdings Limited	Holding company	England and Wales	100% Direct
Chubb Insurance Investment Holdings Limited*	Holding company	England and Wales	100% Direct
ACE European Holdings No.2 Limited**	Holding company	England and Wales	100% Direct
Chubb Underwriting (DIFC) Limited	Managing General Agent	Dubai	100% Direct
Chubb Pension Trustee Limited	Corporate Trustee	England and Wales	100% Direct
Chubb European Group SE	Insurance company	France	99.99% Direct 00.01% Indirect

The group is the beneficial owner of all of the share capital and voting rights of all of the above undertakings.

* This entity was formally liquidated on 3 May 2021.
** This enity was formally liquidated on 2 May 2021.

CEGSE re-domiciled from the United Kingdom to France on 1 January 2019. Guarantees in place for the Chubb Insurance Company of Europe UK Pension and Life Assurance Plan, the ACE London Pension Scheme, the ACE London Services Limited Retirement Benefits Scheme, the ACE INA UK Retirement Savings Plan and the Combined Britons Pension Plan with CEGSE as guarantor are governed by the laws of England and Wales. In March 2019 the Company entered into an agreement with Chubb Pension Trustee Limited substituting the Company as the guarantor in place of CEGSE and Chubb Services UK Limited as the principal employer in place of CEGSE.

11. TRANSACTIONS WITH RELATED PARTIES

Advantage has been taken of the exemption provided in FRS 102 from disclosing details of transactions with Chubb Limited and its wholly-owned subsidiary undertakings.

12. ULTIMATE PARENT UNDERTAKING AND CONTROLLING PARTY

The immediate holding company is Chubb INA Overseas Holdings, Inc. The ultimate holding company is Chubb Limited, a company which is registered in Zurich, Switzerland and quoted on the New York Stock Exchange. Copies of the ultimate holding company's consolidated financial statements can be obtained from Investor Relations at Chubb's executive offices at 17 Woodbourne Avenue, Hamilton HM08, Bermuda.

COMPANY REGISTRATION NUMBER: 05073085

Financial Summary

In millions of U.S. dollars except per share data and ratios	Year Ended Dec. 31, 2020	Year Ended Dec. 31, 2019	Percentage Change	Percentage Change Constant Dollars
Gross premiums written	$41,261	$40,124	2.8%	3.4%
Net premiums written	33,820	32,275	4.8%	5.5%
Net premiums earned	33,117	31,290	5.8%	6.5%
P&C combined ratio	96.1%	90.6%	NM	
Current accident year P&C combined ratio excluding catastrophe losses	86.7%	89.2%	NM	
Net income	3,533	4,454	-20.7%	
Core operating income	3,313	4,641	-28.6%	
Diluted earnings per share – net income	7.79	9.71	-19.8%	
Diluted earnings per share – core operating income	7.31	10.11	-27.7%	
Total investments	118,669	109,234	8.6%	
Total assets	190,774	176,943	7.8%	
Shareholders' equity	59,441	55,331	7.4%	
Book value per share	131.88	122.42	7.7%	
Tangible book value per share	87.69	78.14	12.2%	
Return on equity	6.2%	8.4%	NM	
Core operating return on equity	6.2%	9.0%	NM	
Core operating return on tangible equity	9.8%	14.6%	NM	

This document contains non-GAAP financial measures. Refer to pages 40-42 for reconciliations to the most directly comparable GAAP measures.

NM–not meaningful

Evan G. Greenberg
Chairman and Chief Executive Officer
Chubb Group

To My Fellow Shareholders

This was an unprecedented year. Over the last 12 months, Chubb withstood a global pandemic, a recession and a record run of natural catastrophes. Our 31,000-strong workforce in 54 countries performed substantially as normal despite working from home for much of the year. We never stopped writing insurance contracts, paying claims, offering risk engineering and protection services, and marketing our capabilities. I am proud of my colleagues: because of their efforts we concluded the year stronger than we started, with momentum, earning power and optimism for the future.

COVID-19 impacted us financially and operationally. We kept moving forward though, even as others pulled back. Our fundamentals are very strong, and we continued to invest and advance our strategy. Our digital transformation accelerated, both because of the substantial investments we have made over the years and the way shelter-in-place orders forced our employees to work digitally from home. We capitalized on improved market conditions in our commercial insurance businesses, propelling revenue growth and expanding margins. Our global footprint expanded, notably in Asia. We ended the year with a stronger balance sheet than we began. And we distinguished ourselves as industry leaders, both in our response to commercial insurance market conditions and on the issues impacting our industry caused by the pandemic.

I want to use this year's shareholder letter to explain why 2020 renewed my optimism about Chubb's future, despite the challenges of COVID. I also want to reflect on the many other challenges we faced that remain across the commercial, social and geopolitical landscape. The last year has been difficult in all parts of the world. The United States has faced particular upheavals having mishandled the healthcare response to the pandemic. We have watched widespread protests on our streets, drawing attention to problems of racial justice. Most shocking was the display of demagoguery in our nation's capital in January, scenes the likes of which we have not witnessed in our 240-year history. They left our country shaken and our international image tarnished. Make no mistake: I remain optimistic about the future of our country. But *nothing is guaranteed if the U.S. does* not step up its game.

We will continue to feel the health, economic and social impact of the pandemic – perhaps endemic is now a better description – despite vaccines and therapeutics. COVID is accelerating many global trends, from our reliance on new technologies to rising income inequality and political populism. Inside and outside our borders, support for economic globalization remained under pressure, with trade facing multiple headwinds. Relations between the U.S. and China sank to their lowest ebb in decades. And extreme weather showed the climate crisis looming more urgently than ever. The environment faced by a global company like Chubb is ever-more complex, and there are important lessons to draw from the last 12 months, both for our business and our country, as we move forward confidently into a new period of shareholder wealth creation.

Strong financial performance in the face of adversity

Chubb is a leading global insurance company and the world's largest publicly traded property and casualty (P&C) insurer, providing a wide range of products and services to individuals, families and businesses of all sizes. This year's pandemic hit our industry hard. Our company's published results were impacted both by the pandemic and how we chose prudently to recognize our ultimate exposures to it, as well as natural catastrophes. But Chubb's underlying financial results were very strong. I would draw your attention to *four points in particular.*

First, we produced core operating income of $3.3 billion, or $7.31 per share, down 28%, a noteworthy performance in the context of a quarter of earnings lost due to COVID. Our total net catastrophe losses for the year, which included our sizable COVID charge, were $6.12 per share, compared to $2.11 in the prior year and our five-year average of $3.51. But no handwringing: We are in the risk business, and we are paid to accept volatility.

Second, we delivered an underwriting profit, despite the year's events. Our published P&C combined ratio was 96.1%, a result that for many insurers would represent a normal or even good year. But hardly for us – our combined ratio has averaged 91.2% over the last 10 years, outperforming our competitors by nearly 7.7 percentage points. Our underlying combined ratio last year, which excludes CAT losses, told a very positive story that speaks to our earning power – more on that later.

Third, considering global economic conditions, Chubb produced strong top-line premium revenue growth. P&C net premiums written were $31.3 billion, up 5.4% in constant dollars. Within that our commercial lines grew over 9%, benefiting from improved underwriting conditions, while our consumer lines were down 2.5%, impacted by the pandemic's effects on economic activity. I'll go into more detail on that later, too.

Finally, Chubb is a balance sheet business. Our book and tangible book value grew, respectively, by 7.7% and 12.2% on a per share basis. At the same time, the strength of our loss reserves, the most important part of the balance sheet, improved throughout the year.

Growth and underlying profitability improved in most of our commercial P&C insurance businesses as a result of hardening markets globally. Chubb has long shown underwriting discipline and a willingness to trade market share for underwriting profitability. With nearly 70% of our portfolio in commercial lines, these favorable conditions represent a major opportunity for further growth. Our geographic presence, broad product portfolio, disciplined underwriting and expense management, consistency of risk appetite and strong financial position are all helping us push forward, despite the pandemic – increasing premium revenues and margins across our commercial businesses.

COVID-19 meant our consumer businesses faced more challenging times, particularly our sizable global personal accident and supplemental health (A&H) business and our international personal lines business that insures, for example, autos and household contents. Shutdowns reduced demand for personal insurance, though we expect these businesses to bounce back as the pandemic begins to recede and economies recover.

Due to pandemic-related exposures, we took a sizable charge in the second quarter. We estimated that our ultimate COVID-related losses would approximate $1.4 billion. Our decision to reserve as closely as we could to ultimate means we have now accounted for emerging pandemic-related losses, rather than taking the pay- or recognize-as-you-go approach many seem to be adopting – a mark of confidence in our risk management. On the other side of the coin, we have also been extremely cautious in recognizing the reduction in frequency of losses because of the economic shutdown.

We ended the year with a strong capital and liquidity position as measured by some $75 billion in total capital, $59 billion in equity, and record cash flow of $9.8 billion. Our AA ratings by S&P and A++ by AM Best are solid. We continue to maintain capital flexibility and we will keep investing in critical areas like our digital transformation and international expansion. We entered '21 in a stronger position financially, operationally and strategically, and this gives me confidence about our ability to manage the future.

Understanding the pandemic and our response

The ongoing pandemic is a unique catastrophe for insurers. Unlike a wildfire or a hurricane, which occurs in a specific place and then stops, the pandemic has no geographic boundary and no time limit. The COVID health crisis was exacerbated by shelter-in-place and travel restrictions, and consequent broad economic shutdowns. Simply to illustrate the magnitude, my guess is that, taken together, this combined health and economic crisis is likely over time to produce an industry insured loss in the region of $80 billion globally.

Our and the industry's COVID-related claims come from a broad range of exposures, principally in four areas. The first occurred as people suffered from ill health or death, from front-line workers to ordinary employees, affecting everything from life and health insurance to workers compensation. The second source of exposures come from liability-related insurance, including employment practices, directors and officers (D&O) and medical malpractice. Next are business interruption losses, from businesses that had coverage and were shut down during the pandemic. And finally, there are credit-related exposures, such as surety and trade credit.

Each year Chubb undertakes a catastrophe-type risk scenario planning exercise related to our risk management practices. To help us assess possible future claims, we modeled a global pandemic using the 1918 Spanish Flu as our template. We got the scale of financial impact on our business about right. But we missed two important points. First, we got wrong where the impact would be felt. We assumed most claims would come from health and loss-of-life exposures. In reality, more will come from the other exposures. Second, our operational disaster management process contemplated single geographic events with local or regional impacts, like an earthquake

or a hurricane. In the future such exercises will be conducted on a global basis as well.

Chubb's revenues were also impacted. Reduced business activity and closures decreased the premiums our insureds pay us, restrictions on travel meant less need for travel insurance, while recessions lead to fewer consumer purchases of everything from homes to cars.

Our initial COVID response focused on continuing to operate and keeping our people safe. We learned from our operations in China and around Asia, helping us prepare for when COVID arrived in the Western hemisphere. Our investments in technology paid dividends, allowing us to function almost normally when our global staff shifted to working at home – and we didn't miss a beat. We endeavored to help relieve our customers' suffering, providing premium discounts and extending payment terms, especially for many smaller businesses that needed breathing space. We took care of our workers, instituting a no-layoff policy during the acute phase of the lockdown. We also committed millions to pandemic relief efforts globally, in particular to feed people who have been going hungry in the tens of millions.

We moved quickly from playing defense to playing offense. We kept investing in digital innovations and foundational technologies, in people and in our businesses. We pushed ahead globally. Finally, we introduced important management changes, creating new leadership roles that reflected organizational priorities and recognized excellent performance.

In short, the pandemic did little to hinder our current performance as well as transformations underway in our company that will prove beneficial for years to come.

Industry conditions: a hard market

Property and casualty insurance is a cyclical business driven by supply and demand. Many of our competitors chase volume at the expense of good underwriting, underpricing risks and providing overly broad coverage to win business. Many also do not have good data, or do not use their data well, so they lack insight into a changing risk environment. Eventually those who undercharge get found out, paying the price in rising losses and disappearing margins. They become more risk averse or simply exit markets altogether. After years of underpricing, conditions began to improve two or three years ago, and accelerated in '20 – meaning the rates we are paid are rising and terms of cover are becoming more sensible.

At the same time, insurers face a more hostile loss environment. The average amount paid for a given claim in most classes of insurance is rising each year. The frequency of claims, meaning the number of claims per unit of exposure, is also rising in many classes of insurance, driven in part by rising costs from natural catastrophes and excessive litigation – trends that are likely to endure. This means loss costs have been rising while prices, until recently, have not kept pace. These rising costs also mean more insurers have been pulling back from risk. Chubb, with our culture of excellent underwriting and risk management, has not. And then to complete the picture, record low interest rates limit the ability of insurers to earn income from our invested assets.

"We moved quickly from playing defense to playing offense. We kept investing in digital innovations and foundational technologies, in people and in our businesses. We pushed ahead globally."

This is our kind of underwriting market. Chubb is increasing risk exposure because we can earn an improved risk-adjusted return. We are growing revenue and expanding our underwriting margins. You can see this emerging in our results. The current accident year combined ratio excluding catastrophes is a measure preferred by industry investors because it is a gauge of the underlying health of an insurer's current business, without the volatility of catastrophe losses. Last year, ours was 86.7%, compared with 89.2% prior year, an improvement of 2.5 points; 1.6 points of the margin improvement were loss ratio-related, with the balance expense ratio-related. If we were to include anticipated or expected CAT losses, which I believe is a still better measure, our combined ratio last year was 90.3% compared with 92.6% prior year. All things being equal – and we are in the risk business – I expect underwriting margins will continue to expand while our growth improves.

Chubb's growth priorities

We are a company of builders and we are relentless, even while in work-from-home mode. Let me highlight the growth engines of our company as well as the investments and innovations we are making to build on our capabilities.

Our commercial P&C businesses globally benefited from what I would describe as a flight to capability, predictability, consistency and professionalism that altogether equals quality. We offer clients our broad range of products and services, predictability in terms of capacity and underwriting approach, and rational and transparent pricing, terms and conditions. We have been consistent in our strategy. In previous soft market years, we shrank major businesses to maintain underwriting discipline. Now, as conditions allow for a reasonable return, we are increasing our exposure and winning market share. The result of this strategy is plain to see across our company's $21.8 billion global commercial lines, which grew 9.3% last year and had strong performance in a number of our multibillion-dollar commercial P&C divisions.

Our $21.2 billion North America Insurance franchise is Chubb's largest division with substantial presence in the United States, Canada and Bermuda. Its portfolio balance is 74% commercial lines, which grew 9.6% excluding agriculture, and 26% consumer lines, which grew 0.4%.

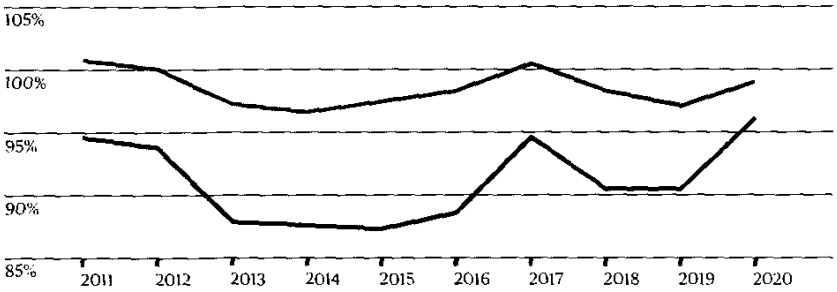
Chubb is the leading commercial P&C insurer in the United States, focused on large, medium and smaller business clients. Our $8.7 billion Major Accounts and Specialty division grew commercial lines premiums by 12%. In the U.S., Chubb serves 94% of the Fortune 1000 – an impressive market penetration. Yet, we have plenty of room for growth with those blue-chip clients, many of which place only a fraction of their insurance with us. We have two excess and surplus lines (E&S) businesses in North America: Westchester, our

P&C Combined Ratio versus Peers

The company's underwriting results have outperformed the average of its peers over the last 10 years.

[1] Includes AIG, Allianz, AXA, CNA, HIG, QBE, RSA, TRV, Zurich.

Source: SNL and company disclosures



Averages:	1 year	3 year	5 year	10 year
Peers[1]	98.9%	98.0%	98.5%	98.4%
Chubb	96.1%	92.4%	92.1%	91.2%

U.S. wholesale business, and Chubb Bermuda, which specializes in high excess, low frequency coverage for casualty, property, financial lines and political risks. Growth began to accelerate in 2019, and really took off last year – propelling Chubb to become the fourth largest E&S writer in the market, when Westchester and Chubb Bermuda are combined. Net premiums grew nearly 18% last year.

Our $5.7 billion North America middle-market and small commercial division also prospered in '20 as market conditions improved, but also because of the deep strength of our distribution network, with nearly 50 branches serving over 4,500 independent agents, making us the number three middle-market insurer. Net premiums written for commercial coverages grew 6.6%, the fastest since the ACE-Chubb merger in 2016. Against the backdrop of the pandemic, performance was boosted in particular by the breadth of our product range and industry specialization. While some sectors we serve struggled – entertainment and aerospace, for instance – demand in others was stronger, such as pharmaceuticals and healthcare.

Outside North America, our $9.3 billion Overseas General Insurance division operates in 51 global markets split into five international regions: Europe, Middle East & Africa, Asia Pacific, Latin America and Far East (Japan). Our portfolio balance is about 60% commercial lines, which grew 10.8% last year, and 40% consumer lines, which shrank 6.4%.

Last year, our $2 billion retail commercial P&C business in the United Kingdom, Ireland and Continental Europe, collectively called the Chubb European Group, experienced its best growth in years, with net premiums written up over 12%. Driven by the hard market, as well as the same business strengths I mentioned earlier, our European group is serving businesses of all sizes, from large domestic and multinational corporations to mid-size and small commercial businesses. I expect the current favorable market conditions to continue to benefit this large part of our company.

Elsewhere, some of our best commercial P&C results in 2020 came from international territories like Australia and a number of emerging markets. Our international retail commercial P&C business is benefiting from the same insurance market trends that boosted our North American performance. Even better were the results of our $940 million London market-based E&S wholesale business, which has a presence on the Lloyd's trading floor. Called Chubb Global Markets, this unit produced the single-fastest growth in the company last year with net premiums up 22%.

Our $9.5 billion global consumer P&C operations, which represents about 30% of the company, were heavily affected by the pandemic, shrinking 2.5% during the year. Our consumer franchise includes our $4.9 billion U.S. high net worth division, where we are the clear market leader; our $2.7 billion global A&H business; and our $1.9 billion international personal lines division.

As I have explained, the pandemic limited the kind of consumer activities that lead to insurance purchases. For example, sales activity in our North America-based Combined Insurance agency business, which specializes in face-to-face selling, slowed to a crawl, as did our worksite marketing business, where insurance is sold to employees at their place of work. Our travel insurance business outside the U.S. was

"Our commercial P&C businesses globally benefited from what I would describe as a flight to capability, predictability, consistency and professionalism that altogether equals quality."

grounded, while our automobile and cell-phone insurance lines also slowed. Response rates in our direct marketing operations in Asia and Latin America, such as telemarketing personal accident and health insurance to financial institutions' customers, were severely curtailed. Many consumer purchases simply declined so our consumer businesses everywhere – in Asia, Latin America, Europe and the United States – suffered.

Our North America high net worth business, Chubb Personal Risk Services, which serves the insurance needs of affluent individuals and families in the U.S. and Canada, was one notable exception. High net worth consumers were relatively less affected by the pandemic, and they were more likely to turn to a provider with a trusted, quality reputation. As a result, our business continued to expand. True high net worth clients, whom we call our Premier and Signature clients, are a major focus because they appreciate the coverages and services we provide. These segments grew 7.7%, whereas our mass affluent segment, which is more influenced by price, shrank 5.2%.

Our Asia-focused life insurance business was another exception. Operating in eight Asian countries, the business grew net premiums and deposits 11.4% to $2.8 billion. Segment income was up almost 10% year-on-year, triple what it was just three years ago. We also have life insurance operations in various South American countries led by Chile, where we recently completed the acquisition of Banco de Chile's life operations. Our life business continues to grow steadily, helped in part by Asia's relatively stronger recovery from the pandemic, and its earnings contribution to the company is becoming meaningful.

While their growth may have been subdued last year, our international consumer P&C businesses have been and remain critical engines of our growth, where they are well placed to serve the rising middle classes of developing Asia and Latin America. We continued to invest last year in

Long-Term Operational & Financial Outperformance (10 Years)

Chubb has delivered on its financial goals and outperformed its peers across most metrics

	Premium & Earnings Growth		Underwriting Profit	Book Value Growth		Average Return on Equity & Return on Tangible Equity		Valuation
	Net Premiums Written ('10-'20)	Operating Earnings ('10-'20)[1]	P&C Combined Ratio ('11-'20 Avg.)	Book Value per Share (12/10-12/20)[2]	Tangible Book Value per Share (12/10-12/20)[2]	Average Return on Equity ('11-'20)	Average Return on Tangible Equity ('11-'20)	Market Cap Growth (12/10-12/20)[3]
Chubb	147%	25%	91.2%	93%	62%	10.0%	13.9%	233%
Avg Peers[4]	6%	11%	98.9%	50%	62%	9.0%	11.3%	58%

[1] AIG excluded due to negative earnings in 2010
[2] AIG adjusted for U.S. Treasury Equity Investment
[3] AIG excluded due to impact from government intervention
[4] Peers include AIG, Allianz, AXA, CNA, Hartford, Travelers, Zurich
Annual metrics through full year 2020 actuals: Net Premiums Written, Operating Earnings, P&C Combined Ratio, Average Return on Equity and Average Return on Tangible Equity; Point-in-time metrics through December 2020 actuals: Book Value per Share, Tangible Book Value per Share and Market Cap

expanding their capabilities in terms of products, technology and, most importantly, distribution partnerships. We will see them return to growth once the pandemic subsides.

Chubb signed an impressive 21 new distribution partnerships last year with a range of partners, including airlines, consumer finance companies and digital platforms. Digital channels are yielding exciting results as we sell simple personal accident, life, supplemental health and personal lines insurance products via e-commerce companies, digital banks and digitally native players seeking to add insurance to their services, as well as through traditional channels like banks and agents as they digitize. These new products and partnerships only serve to enhance our growth capabilities when demand returns. They are the seeds we plant for future growth.

The changing specter of risk

Our industry is managing two powerful forces that are changing the nature of risk – climate change and the legal environment. Again, both are enduring trends. Sizable weather-related loss events are more common, from a record U.S. hurricane season to wildfires in California, Australia and Greece, as well as flooding in areas like China's Yangtze River. The industry's global insured natural catastrophe losses came in at $76 billion, up from $54 billion prior year and one of the costliest on record.

As a result, Chubb posted pre-tax net losses of $1.7 billion last year from natural catastrophes, compared to $1.2 billion in 2019. This was $648 million more than we planned when calculating our expected CAT losses at the start of the year. With every year that passes, the amount we expect to pay out from a given set of exposures increases, a reality of climate change.

Given our business of assuming risk, it is our job to better understand evolving exposures that emanate from climate change. Flood models and evaluation tools are improving to consider factors like elevation and flood defense. Wildfire modeling now includes factors like topography, vegetation, drought conditions and wind patterns – allowing us to assess more accurately the risks faced by an individual or a business, as well as aggregations of risk in a given geography. These tools are far from perfect – they don't represent absolute truth – but they continue to advance and provide us with greater insight. Chubb is investing a lot of time and money to improve our risk-based analytics, not just in climate but in many areas of risk.

The worsening legal environment is systemic and, for clarity, coming from two principal sources. The first is litigation as a business, in which lawyers drive up insurance costs with excessive or abusive claims. Litigation that should provide fair redress has metastasized into a huge money-making system. This abuse of late is partially fueled by increased litigation funding, a speculative new asset class that is more akin to horse racing. Rising legal costs are unnecessarily costly for society and a tax on business.

The Boy Scouts of America litigation is a case in point. When the group filed for bankruptcy in 2020, it faced about 1,700 claims alleging sexual abuse by scout leaders. That number grew 55 fold to 95,000 claims, driven by what *The Wall Street Journal* described as "a sophisticated new tort machine" that raises investment to fund speculative litigation and push

"Our industry is managing two powerful forces that are changing the nature of risk – climate change and the legal environment. Both are enduring trends."

new claims on a massive scale, often by recruiting claimants via misleading mass advertising and social media campaigns. Tens of thousands of the claims upon preliminary inspection appear to be invalid or fraudulent. We deeply sympathize with the victims of sexual abuse, but justice is not served by the filing of specious claims.

The second force behind our worsening legal environment is "social inflation," meaning the populist notion that if something goes wrong in modern society, someone must also be at fault. Set against a backdrop of rising anti-corporate sentiment, this phenomenon has been driven by a range of factors, from changing definitions of legal liability to more costly jury awards.

The overall result has been a severe and ultimately unsustainable inflation in legal awards and legal costs that translates to higher costs of insurance. To highlight the problem, the total expense of legal costs and compensation paid in the U.S. tort system in 2019 amounted to $510 billion, or 2.3 percent of GDP. The U.S. needs litigation reform at both the state and federal level to combat the abusive power of the trial bar and address out-of-control awards. Working with the wider industry, this remains a Chubb priority.

The challenging environment was exemplified writ large during the pandemic over the issue of business interruption. Our industry first came under attack from some in the political establishment, who considered federal and state legislation to force insurers retroactively to pay out on risks not covered in our policies. Chubb became involved early on, assuming a public profile and helping to lead an industrywide effort to defend the sanctity of our contracts. We argued that these measures were unconstitutional, not to mention that they would bankrupt the industry and do huge damage to the financial system as a whole. The industry, supported by regulators, managed to blunt this threat – although attempts to enact legislation continue at the state level.

Then came the trial bar, which initiated a spree of litigation that attempts to twist the intent of contracts and reinterpret insurance contract language to force pay-outs in situations that in most cases insurers never intended to cover, and in which no premium was charged for the risk, specifically when city and state governments mandated pandemic-related business closures. This litigation relied on implausible arguments that COVID causes direct physical loss or damage to a business's property, in the same way as a fire. The industry has been pushing back successfully in the courts, for now at least. But there are still some 1,500 lawsuits in the U.S. against insurance companies on this business interruption issue.

Investing in a "lower for longer" world

Chubb's earnings come from both sides of the balance sheet: on the liability side we generate underwriting income from the exposures we take for customers; on the asset side we generate income from our investment portfolio, which is mostly investment-grade bonds. We invest conservatively because we have a fiduciary responsibility: those funds represent policyholder claim reserves and shareholder capital. The pandemic has affected our investment returns, driven substantially by the emergency fiscal and monetary responses to the pandemic.

Governments around the world were right to support individuals and business. Fiscal responses in large economies like the U.S. have been sizable and successful. Without additional stimulus, the U.S. was likely to grow in the range of 5% to 6% during 2021, with unemployment hovering below 5%. With the additional $1.9 trillion stimulus passed by Congress in early '21, which in my judgment is excessive and not well directed, there is a risk of overheating with a rising specter of inflation. U.S. debt levels have already ballooned above 100% of GDP, with over 80% of government tax revenue going to debt service and entitlement programs. The federal budget deficit topped more than $3 trillion during 2020, or 15% of GDP – the highest since World War II – and that is before the additional $1.9 trillion. Our deficits have the potential to crowd out future private sector and real public investments. Respectable economists now often say "deficits don't matter," mostly because borrowing costs are so low. But this won't last. Rates will rise, pressuring our fiscal position and potentially the dollar's status as the reserve currency, as history shows.

As the pandemic struck, central banks throughout developed economies launched massive asset purchases, which pushed up money supplies and drove global yields to zero. These actions were historic. While these policies were justified to bridge a potential economic and financial market chasm, the Fed, in my opinion, has overstayed its "easy money" mandate. These policies distort markets, push investors into riskier assets and inflate financial valuations, as witnessed by the recent extraordinary rise in global equity markets. Excessive monetary

easing also exacerbates inequality, benefiting the wealthy who have exposure to financial markets while the unemployment rate remains elevated.

In my judgment, the Fed's zero-rate policy does little to sustain economic activity. In fact, higher short-term rates and phasing out asset purchases would alleviate market distortions, discourage speculative investor behavior and have little impact on investment in the real economic sector.

With all that said, for the next several years investors face the prospect of a "lower for longer" yield environment and will be challenged to earn reasonable rates of return. In response, Chubb has systematically diversified a greater percentage of its portfolio out of traditional fixed income into asset classes that offer higher prospective total returns. Similar to our underwriting discipline, we only invest where we can earn adequate risk-adjusted returns. This strategy is difficult to deploy given the current lack of investor discipline and excessive liquidity that has flooded global financial markets, but we are patient. While our strong operating cash flow helped to mitigate the impact of low rates, in 2020 we earned pre-tax adjusted net investment income of $3.6 billion, down 1.8% from the prior year. Our invested assets stood at $119 billion as of December 31 and generated a book yield of 3.4% versus average new money rates of 2.3%.

Delivering for shareholders

Tangible book value growth is our ultimate measure of shareholder wealth creation. Chubb is a growth company, measured as growth in book and tangible book value over time. The difference between these two measures is goodwill, which is an income-producing asset when an investor buys wisely. We have grown shareholder wealth consistently over the years, and faster than our competitors (see chart on page 8). Last year, book value grew 7.4%, while tangible book value grew 11.9%, both supported by our results as well as by Fed actions that have created significant asset inflation. Excluding unrealized appreciation, our tangible book value grew 6.3%.

Our 2020 core operating ROE was 6.2%, again impacted by the COVID and other CAT losses. Our 10-year average core operating ROE, for comparison, is 10.0%. As a growth company in the risk business, we retain surplus capital and this dilutes our ROE by about 200 basis points. This policy has been consistent and has served shareholders well by growing tangible book and book value per share, predominantly by growing the company. As I have explained on other occasions, at current interest rate levels, we expect to achieve a 12% to 15% ROE on deployed capital, which excludes surplus capital, over the medium term. It is worth noting that when interest rates rise, every hundred basis points of additional yield in our investment portfolio produces about 150 basis points of ROE.

Beyond what we need for risk and growth, we return surplus capital to shareholders. For more than two decades, we have raised our dividend, earning us a place in the "dividend aristocrats" club. We aim for a target dividend pay-out ratio over time of approximately 30%, which will vary depending on our earnings in a given year. In total, we returned $1.9 billion this year, comprising $1.4 billion in dividends and $516 million in repurchases, for a total pay-out of 58% of our earnings. We repurchased our shares at an average price of $144, which equals a price-to-book of 1.1 – a

"Respectable economists now often say 'deficits don't matter,' mostly because borrowing costs are so low. But this won't last."

price that is an absolute bargain. Our share price ended the year at $153.92, down 1.1% for the year with a positive total return of 1.4%.

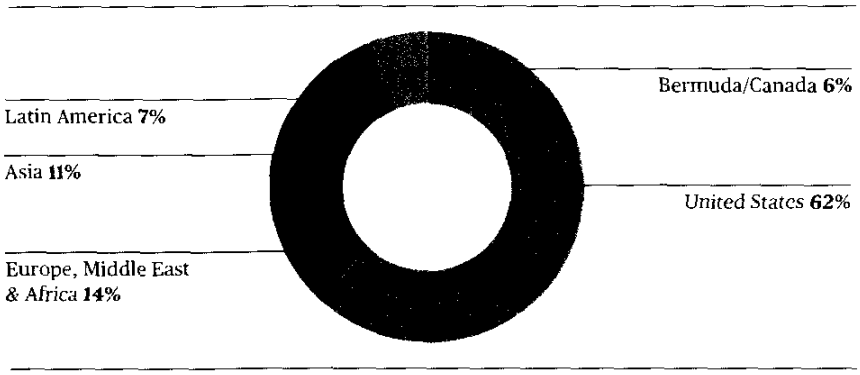
A big shove for our digital transformation

Chubb is building a company to thrive in the digital age. For a number of years, we have invested in technology and talent, building new tools, developing new skillsets and ways of doing business – and we continue to do so with considerable progress and momentum. Last year shelter-in-place gave a big shove to this transition. When we went into lockdown, our ways of working changed as we leveraged capabilities already in place. But our organizational consciousness and habits changed too, as employees and customers embraced digital technologies. To give one simple example, our teams held 2.3 million Webex meetings last year, adding up to nearly half a billion minutes.

Chubb's historic investments mean modern foundational technologies are now in place in many areas. From this base we are developing further innovations and scaling them across the company. Robotics and straight-through processing are fully automating transactions. Deep learning augments underwriting insights. Internet of things (IoT) applications prevent losses from happening to our insureds. Machine learning and sophisticated algorithms

Geographic Sources of Premium

2020 gross premiums written



Premium Growth by Geography

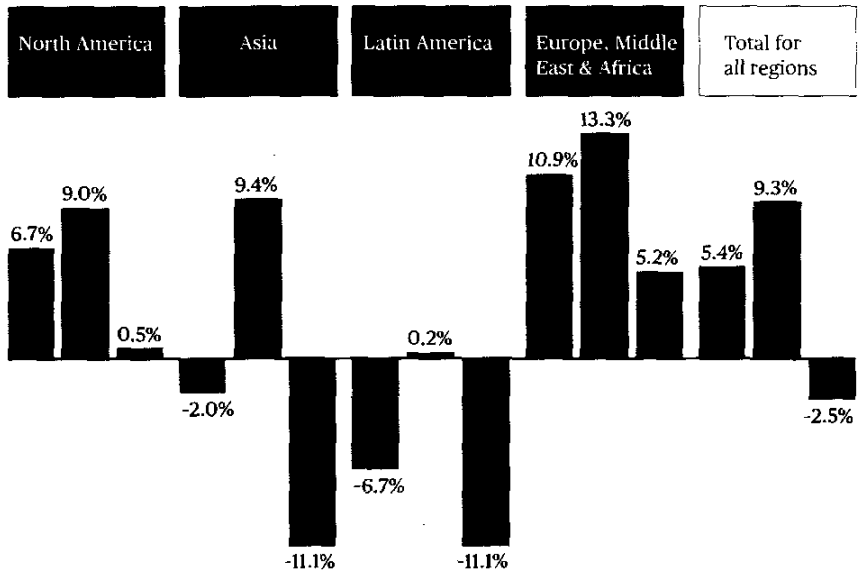
Percentage change in P&C net premiums written in 2020 versus 2019 in constant dollars

Overall growth

Commercial businesses

Consumer businesses

Data includes all sources of insurance and reinsurance P&C net premiums written by geography



automate everything from risk analysis to fraud detection and more. Analytics and lots of internal and external data are improving underwriting, claims and customer insights. New tools are improving the experience of customers and distribution partners, particularly consumers and small businesses in Asia, Latin America and the U.S. For example, Chubb Studio℠, our global "insurance in a box" platform, streamlines our connectivity to partners' digital channels and embeds what we do into what they do.

In sum, we are changing the way insurance operates enterprisewide at Chubb – from the customer experience, to underwriting and pricing risk, to servicing and paying claims, to innovating new products.

Digital then offers the chance to simplify products and the process of buying insurance. Last year in our North American small commercial business, we launched a powerful capability that streamlines the customer experience, using external data, web scraping and other AI capabilities to fill out insurance details for a customer or their agent – reducing the average time spent completing an application by 65%. Similarly, digital helps us to pay claims more quickly. Using automated decision rules and AI capabilities for simple accident and health claims in both Mexico and Singapore, we are learning how to reach the goal of near-instant payments. This will spread to more coverages and geographies in the future.

Technology innovations help our clients in other ways. IoT-enabled sensors monitor, detect and prevent losses in both commercial and consumer environments. Adoption of IoT services accelerated in several commercial and consumer sectors in 2020. By remotely monitoring hospitals, college campuses and even private wine collections, Chubb technology prevented costly water or temperature damage through early detection, saving clients millions in potential losses.

Our ultimate aim remains to use digital technology to modernize and reinvent the business of insurance. Some view insurtech start-ups as pioneers in this area. While these companies mix good customer experiences with clever marketing, most are not picking off better insurance risks and selecting against traditional insurers. Nor are they reinventing insurance and risk-taking. By contrast, digitization enabled us to process over $3.4 billion in business last year without human interaction between the agent and Chubb. In 2021, more than $200 million of premium will be delivered through direct digital channels, representing 40% compound annual growth from 2018, with an estimated 10 million policies sold. The results: a better customer experience, considerable efficiency savings for the company and, importantly, an underwriting profit from the actual business – something many high-flying insurtechs will not achieve for years, if ever.

Chubb's investment journey in China

Our investment in China's Huatai Insurance Group is one further example of Chubb's long-term approach to global growth. China is the world's second-largest and fastest-growing major economy, whose growth paused only briefly as it managed to avoid a crunching post-COVID recession. Its financial

"We are changing the way insurance operates enterprisewide at Chubb – from the customer experience, to underwriting and pricing risk, to servicing and paying claims, to innovating new products."

services industry, including insurance, is evolving and developing – just like its economy as a whole. China has opened its door wider to investment by proven foreign financial services companies to aid in the development of the sector. Our investment is not without its risks, given both the evolving geopolitical relationship between the U.S. and China, and the realities of the local environment that must be managed by any major foreign investors in the Chinese market. But in our judgment these risks are worth taking.

I have been doing business in China for 30 years, while for two decades our company has been a long-term, patient investor in Huatai, a medium-sized financial services holding company with P&C, life insurance and asset management subsidiaries, as well as more than 17 million customers and 600 offices. We now stand at an important threshold. In 2019 we were given the green light to increase our ownership, which meant Huatai became the first domestic financial services holding company to convert to a Sino-foreign joint venture. We currently own 47%, which makes Chubb the controlling shareholder under Chinese law.

We have plans to increase our stake further to achieve full majority ownership, subject to Chinese regulatory and shareholder approvals. Our Chinese growth plans embody the mix of patience in strategy and impatience in execution that stands as a hallmark of our company. For Chubb's shareholders, the upsides in the coming years are significant, as they can be for China's economic development as a whole.

Running our global race better

For decades, the U.S. held an unchallenged position of global leadership, which benefited our nation economically, socially and politically. It achieved peace and prosperity for our people. This position was not free, but its benefits clearly outweighed the costs. Today the U.S. is in a new leadership contest with China – and we clearly need to run our own race better and with confidence.

China is a rising regional and global power seeking greater economic, geopolitical and security influence. We are destined to compete in many areas. At the same time, we want to co-exist productively and cooperate where it serves our mutual interests, for instance on climate, terrorism, the pandemic and economic recovery. A new U.S. administration provides a chance to move past the emotions that dominated the last few years.

One need not admire China's autocratic system to recognize their competence and determination. As a nation, we have long failed to address perennial problems. We focus huge attention, and rightly so in many instances, on domestic social issues, but we too often do so without relating back to our competitive profile. And while important, it leads us too often to look inward and lose perspective of ourselves and our place in the world – a world we depend on. Meanwhile, a competitor like China focuses on nation-building and economic prosperity with discipline and a sense of individual sacrifice.

The U.S. has great advantages, and I would never bet against us. We are bordered by two friendly neighbors and protected by two oceans. Our natural resources are abundant. We have a huge private sector and an innovation culture with world-leading technology. Our government institutions have underlying strengths, despite the challenges of the last year. Our civil society, rule of law and system of market capitalism foster great economic dynamism while attracting talented people from all around the world. We are at our core inclusive: to be an American is an idea; you don't have to be born here to be one of us. All of this gives me confidence in America's future – but only if we act now to protect what is good in our system, address our weaknesses and reassert our position of leadership.

Running a better race starts at home. Two decades of globalization produced great prosperity but left too many facing inequalities of wealth and opportunity. Too many workers lack the education and skills required to compete in our digital economy. Too few Americans feel globalization's benefits in their income, turning instead to protectionism in an attempt to look after their own. With so many of our fellow citizens unable to succeed in our free market system, is it any wonder they turn to those who say the system is rigged?

We should lead a new phase of globalization, recognizing that we are doing too little to democratize its benefits, and focus urgently on renewing our national competitive profile. Rebuilding domestic competitiveness requires investments in people and infrastructure as well as dependability of supply chains for critical and strategic items. For example, we can raise workforce skills at scale by retooling community colleges that deliver practical training. R&D and physical infrastructure can be improved with investment in 5G networks and cutting-edge artificial

intelligence systems, as well as by repairing and upgrading rail networks, ports and highways. Investment in modernizing our military and security is a major priority. Foundational technologies matter, from quantum computing and biotechnology to advanced manufacturing and smart batteries. Finally, we should open our borders with a large-scale migration strategy for both skilled and non-skilled working age people. After all, if we want to grow our economy faster, grow the labor force.

Reasserting U.S. global leadership requires us to work harder abroad, too, and especially in Asia. We should be working with friends and allies to enhance the liberal rules-based trading system. We can still call out problems when we see them, as with the World Trade Organization, an organization that borders on irrelevance and is in need of reform. But we should also take back our leading role rewriting the rules of global commerce and trade. The U.S. was the architect of the Asia-focused Comprehensive and Progressive Agreement for Trans-Pacific Partnership agreement. We should rejoin that agreement. Just as important is that we begin to develop more ambitious next-generation digital and data technology agreements, bringing together the advanced industrial democracies of Asia, Europe and North America.

China lacks America's strong innovation culture but it has advantages in the new digital and data economy with its huge population and limited data privacy rules. Countries like the U.S. have fewer people and stronger privacy protections, limiting the flows of data that fuel AI-driven industries. To maintain leadership requires working together with our allies with the aim of developing new rules of the road for exchanging, investing, protecting and standard-setting in the areas of technology and data, from IP protection to the governance of advanced technologies like AI – allowing us to compete at scale.

We can and should defend U.S. interests against predatory behavior while advancing our view of a renewed liberal world order based on our values, while leaving the door open for China to participate. As an objective, we cannot and should not want to hold China down. Nor should we assume we can pressure Beijing to change its behavior. Let China decide what is best for them.

Chubb is a global company. We have benefited from economic globalization over recent decades, a system built on the bedrock of Western leadership. If that leadership is not renewed, our world risks sliding into an era marked by rising protectionism and divided by geopolitical conflict. But if the U.S. steps up once again to reinvigorate our competitive profile and wealth-creating capability, there is no reason why our country and our global system should not continue to prosper in the future.

Renewing American democracy

In the short-term, the U.S. is suffering three interlinked crises. We are enduring a health crisis, a pandemic-driven economic recession, and a political and social crisis made worse by COVID. The crisis of democracy, whose severity was made more clear since our election, culminating in what happened in our Capitol building in January, is not going away. It should act as a wake-up call to all of us who love our country.

"If the U.S. steps up once again to reinvigorate our competitive profile and wealth-creating capability, there is no reason why our country and our global system should not continue to prosper in the future."

The roots of this crisis have long been clear in the rise of populist extremes on both the right and left, driven by leaders who promote conspiracy theories, division and polarization. January's events follow logically from a situation in which a third or more of our fellow citizens still believe voter fraud swayed our election. The sight of members of Congress attempting to subvert the will of the people and stand in the way of what is largely a ceremonial affirmation of the electoral college vote was unacceptable. So were the displays of symbols of hate, bigotry, violence and anti-Semitism in our Capitol building.

At the end of the day, the facts are the facts – there was no widespread election fraud. Just because you don't like the political outcome doesn't give you the right to subvert our democracy and the rule of law. But the private sector shares responsibility here, too, given the way social media has left many citizens in parallel realities, in which falsehoods spread and truth is discarded. Rebutting these lies and reeducating those who have come to believe them will be a complex task – but they are crucial to rebuilding the foundations of our democratic system.

Here a sense of balance and perspective is needed. There is much to be proud of in our nation. The 2020 election was among the safest and fairest in our history. More than two thirds of eligible Americans voted, more than in any election for a century. Those polls were well managed, county by county and town by town, by public-spirited fellow citizens. Our legal and government institutions – the bedrock of our democratic system – did their jobs and continued to enforce the rule of law. But we also should be in no doubt of the deep damage polarization on the right and the left has and is doing to our political system, our image in the world, and our ability to get our own house in order and address our perennial problems. We look to elected leaders from both parties to set an example by their respect for our democratic norms and processes. And we require leaders of good character to put self-interest aside, govern in the interest of the nation and address the many pressing problems we face.

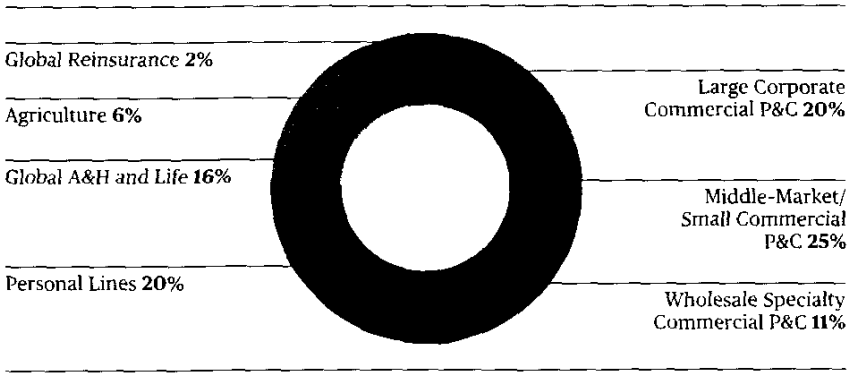
Combating COVID and future pandemics

Many nations were ill-prepared for COVID-19. But we should now focus on managing the coming stages of this pandemic and preparing for the next. Our country struggled to manage COVID but deserves great credit for our scientific and technology prowess that enabled the development of multiple vaccines at record pace. This virus is going to be with us for a long time, and COVID-19 will not be our last pandemic. We live in a globalized world. Throughout history pandemics have been tied to trade and people movement. We require better preparations to manage future outbreaks when they arrive.

For starters this means improved pandemic management, beginning with new global healthcare intelligence that allows data to be shared before pathogens cross borders. This is an area where the U.S. and China could cooperate more closely, no matter how difficult that process is. Those that tackled the pandemic well, most of which are in Asia, can act as models for others. Countries like Taiwan and South Korea reacted quickly, from closing borders to introducing social distancing rules. Masks were widely worn while policymakers developed rapid testing and digital contact tracing systems.

Premium Distribution by Product

2020 net premiums written



Similar measures in the U.S. could help ensure future outbreaks are controlled and widespread lockdowns avoided or minimized, while also avoiding situations in which businesses are forced to stay fully or partially closed for prolonged periods. And let's face it: We also need to find ways to reconcile our commitments to privacy and the demands of a public health emergency. Well-meaning rules designed to protect personal data limit our ability to manage a future pandemic. Severe moments of crisis often require temporary sacrifice of individual freedoms for the greater good, be that to ensure face masks are widely worn or contact tracing data is easily but securely shared.

On pandemic costs, we at Chubb proposed a public-private partnership to manage the expense of business interruption. Under this proposal the Federal Government would cover "tail risk," meaning the financial risk of an infrequent event of catastrophic size. Our industry is limited in our wherewithal to take risk by our capital and surplus. U.S. insurers hold around $800 billion, which we use to meet not just COVID claims but also everything else. We cannot meet trillions in costs for pandemic-related shutdowns. But by providing a backstop against potentially huge losses, the government would enable insurers to provide business interruption coverage for pandemics.

There is precedent for this model in the reforms that insure against catastrophic terrorism after 9/11. Under Chubb's model, the government would mostly cover losses from smaller businesses. Medium and larger businesses would buy commercial insurance at actuarially sound rates. The government gets paid for the use of its balance sheet – we seek no handouts. This model also need not be overly expensive, if we improve pandemic management to contain future outbreaks, reducing the need for widespread and prolonged shutdowns. If the Federal Government doesn't work with insurers, the next pandemic will remain uninsurable for business interruption coverage. But if a new partnership is possible, in combination with other pandemic measures, we can greatly limit both its damage and cost.

Our journey toward racial equity

The past year has been marked by further social upheavals centered on the historical injustices of racism. The causes of these events are complex, dating back to our nation's imperfect birth. But far more must be done to tackle bigotry and racism in the U.S., particularly as faced by Black people. We are focused on what we can do at Chubb, and we are dead serious about playing our part.

We started by striving to enhance our understanding of racism and that journey continues. Internally we have been conducting an ongoing listening program and we completed a professional assessment to help us learn about the Black employee experience in America, as well as the impact our existing policies, practices and behaviors have on our workforce. We are now turning these insights into a practical plan to improve racial equity in recruitment and career development. We aim to promote a greater sense of belonging for Black colleagues, by improving communication and support.

We will do more over the coming years. We recognize the role of leaders and are mobilizing the commitment of all employees in building a more

"Far more must be done to tackle bigotry and racism in the U.S., particularly as faced by Black people. We are focused on what we can do at Chubb, and we are dead serious about playing our part."

inclusive culture, where all feel equally equipped to contribute and succeed, as well as recognized and promoted. We aim to increase the racial mix of our workforce, in part by requiring racial diversity on candidate slates and including more Black talent on interview panels. We have set targets to improve rates of hiring and promotion. We are building a racially diverse pipeline of early career talent in the industry. And we are setting up new processes to identify and mitigate unconscious bias in hiring, promotions and performance assessments. All of this won't be easy, and it will take time.

Our philanthropy and external citizenship programs can help advance these goals, too. The Chubb Charitable Foundation is investing in education and skills-based training, with emphasis on Black people. This includes funding scholarships supporting people of color from underrepresented communities, providing internships to help recipients gain experience with Chubb and potentially enter our talent pipeline. The Chubb Rule of Law Fund is addressing issues of racial justice, for instance, via support for Equal Justice USA, an organization working to reform the justice system with programs that increase empathy and understanding between community residents and police officers.

Ultimately Chubb aspires to create a culture of anti-racism, moving beyond simply not being racist. It means no innocent bystanders. It is not enough to say that you yourself are not racist. We all need to act to stop racist behavior. Chubb's success relies on our ability to attract, develop and retain the most talented people. We believe there is rarely a contradiction between pursuing profit and supporting society in areas like racial justice. My role as chief executive is to build and sustain a thriving enterprise that provides a valuable service to society. And it is only by serving society that we maximize returns over the long term for our shareholders. The community is where we operate. If my customers and employees aren't happy, then we will not be able to provide the service society needs. All of this is part of what we call good corporate citizenship.

A critical year for climate change

Chubb recognizes the reality of climate change and the substantial impact of human activity on our planet. As insurers we have a front row seat to the catastrophes climate change brings. Our first responsibility is to use our risk management expertise to provide products and services that protect individuals, businesses and communities. But we have a further role to play through price signals.

Insurers transmit what we know about climate risks to clients. We charge higher prices if data tells us an area is likely to be hit by hurricanes, flooding or wildfire. This helps contribute to decisions as to where to live or where to invest as a business. We also use data and knowledge to promote new coverages and take risk, or demonstrate new ways to mitigate exposures. For example, this year we launched a demonstration project working with The Nature Conservancy and the city of Miami to restore a historic waterfront park that will use nature-based solutions such as mangroves to reduce storm surge, and hence flooding.

Climate change also creates opportunities to serve new markets and develop new products. We are already a leader in providing insurance to renewable energy and clean tech companies. Last year we appointed a new climate sustainability manager to identify and implement climate-related products including more mitigation services. In the end, only governments and the private sector together can create the kind of wholesale change that will hold warming to 1.5°C above preindustrial levels. Chubb can and will play our part.

The risks of a cyber catastrophe

After the last year we should all think anew about global and national-level catastrophic risks, especially the risk of a catastrophic cyber-attack. Chubb is a major insurer of cyber risks. As the world digitizes, we see that the frequency, severity and sophistication of cyber-attacks are growing, both from government and non-government actors. Our vulnerability is increasing because of greater interconnectedness, creating systemic risks that are large, growing and not easy to detect and control.

The risk to our economy and critical national infrastructure is grave, as we saw in late 2020 when state-sponsored hackers penetrated a number of major U.S. government and corporate institutions. There have been myriad further major data breaches over the recent years. The U.S. and its industrial world allies are investing heavily in cybersecurity capabilities, but our systems are not superior to those that seek to attack us. In fact, recent events show we are continuously playing catch-up. Cyber-attacks and cyber-terrorism should concern us in particular because they share many characteristics with pandemics, given they can cause catastrophes that are limited neither by time nor

geography. Hackers can cripple digital infrastructure, from power grids to telecoms systems. Such attacks could end up costing many trillions of dollars and exceed the balance sheet wherewithal of insurers in the process.

Much as with the pandemic, this requires the government and private sector to work together, backed by clearer legal frameworks nationally and internationally. We need new tools, new safeguards and new ways of sharing information. For example, the government should outlaw ransomware payments to remove the financial incentive of this criminal activity. The U.S. and like-minded nations need to work together quickly to develop new forms of collective cybersecurity, including deterrence and joint punishments against cyber criminals and malign state actors.

Conclusion: Chubb's coming year of opportunity

I want to end by thanking so many of our people for their resilience and leadership. Our employees responded magnificently to the challenges they faced. This was not without sacrifice: the pandemic took a tragic toll on Chubb in human terms, leading to the untimely deaths of a number of our valued colleagues, alongside hundreds of others who fell ill and thankfully recovered. I want to commend all those who worked to help our clients and partners with urgency and care. Our technology group rose to the challenge of rapid virtual operations. Our operations and IT teams helped us work normally, keeping our people safe while moving forward with business priorities. Our underwriting organization delivered extraordinary performance. In a record year for natural catastrophes, our claims professionals and engineering groups helped us deliver on the promises we make to everyone we insure. Finally, I would like to thank our knowledgeable and committed board of directors: their support helped give all of us the confidence to do our jobs well over the last year.

I want to pay particular credit to three senior colleagues who took new roles this past year. In December I appointed John Keogh as President and Chief Operating Officer – a title that reflects his achievements and importance to our company, and his substantial leadership over his 14 years as my colleague. A few months earlier I appointed two other trusted partners: John Lupica as Vice Chairman and President of our North America Insurance operations, and Paul Krump to the position of Vice Chairman, Global Underwriting and Claims. All three are great leaders and managers. They are highly knowledgeable, hands-on and execution-oriented. They are citizens of our culture, and their behaviors exemplify it. They are all builders – and I can pay no higher tribute than that.

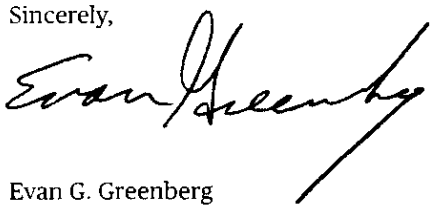
Our company will return to a more normal style of working during '21. We know our future workplace will not look like the past. There will be more opportunities to work from home, and we expect travel to be lower, too. That said, Chubb remains a "work from office" company. I believe you can't build a corporate culture remotely, nor can you plan, innovate and train effectively, and generate sustained energy and vitality, if your workers are not in one place much of the time. As the pandemic recedes, Chubb is coming back to the workplace – and we will stay back at work.

Many of you will remember this year because of COVID-19. But to me what mattered was not simply how quickly Chubb came to grips with the pandemic, but how we then began pushing forward to seize strategic opportunities. We got back onto the front foot quickly. Indeed, we barely came off the front foot. We started the year in good shape, and by the end we were in even better condition, with strong growth and earnings generation possibilities and a reinforced balance sheet, with capital ready to be deployed. Given the difficulties we encountered last year, that was a huge achievement.

We have the capabilities to deliver sustainable profitable growth. We will take further advantage of hardening commercial markets and press on toward the moment when our consumer operations bounce back. We have the best people in the business, as well as the culture, leadership, command and control structures, and technology we need to prosper. We are a disciplined culture of builders and risk-takers. We pride ourselves on execution excellence. All of this adds up to capitalizing on opportunity globally.

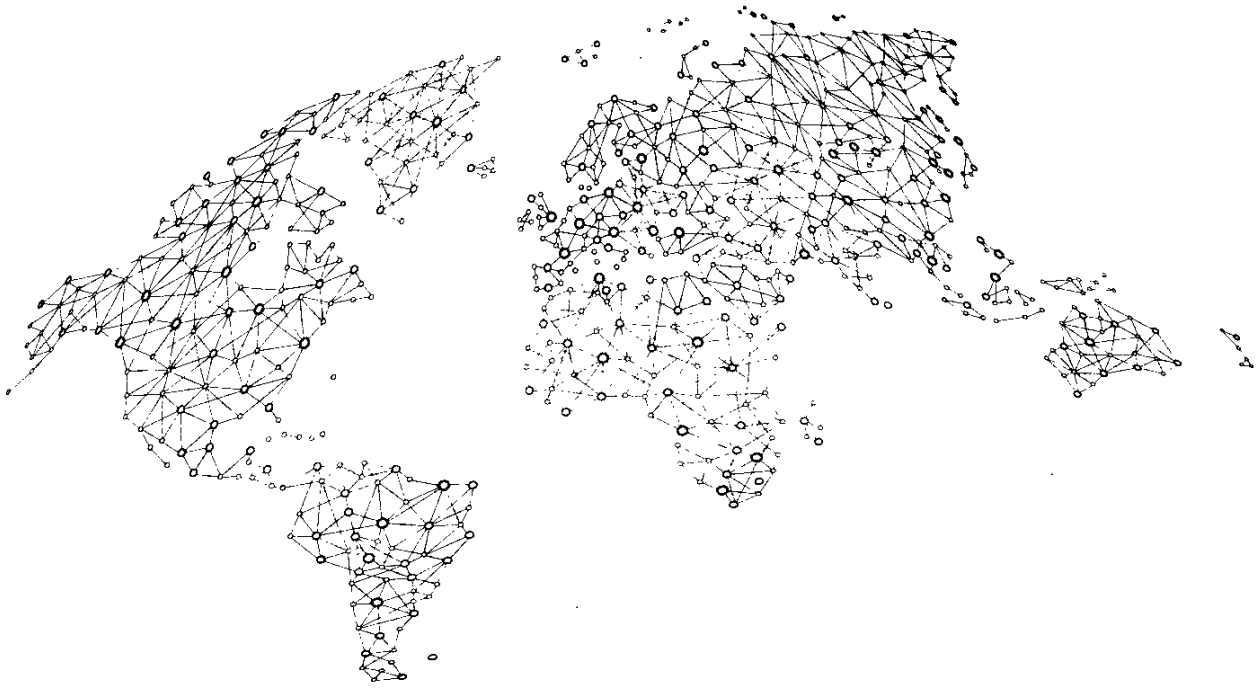
This is the underlying story of our resilience over the last year, and the basis of my future optimism. We have entered a new period of wealth creation for our company. I have never been more optimistic about the future, or about the benefits that you, our shareholders, will continue to receive.

Sincerely,



Evan G. Greenberg
Chairman and Chief Executive Officer

A Global Leader in Property and Casualty Insurance



Argentina
Australia
Austria
Belgium
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Canada
Chile
China
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Russia
Saudi Arabia
Singapore
South Africa
Spain
Sweden
Switzerland
Taiwan
Thailand
Tunisia
Turkey
United Arab Emirates
United Kingdom
United States
Vietnam

A local presence in 54 countries and territories around the world

Chubb has operations in the countries and territories listed here and can help clients manage their risks anywhere in the world.

Chubb Senior Operating Leaders

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Juan Luis Ortega
Executive Vice President, Chubb Group; President, Overseas General Insurance

Paul J. Krump
Vice Chairman, Chubb Group; Global Underwriting and Claims

John Keogh
President and Chief Operating Officer, Chubb Group

John Lupica
Vice Chairman, Chubb Group; President, North America Insurance

Chubb's senior operating leadership includes the company's President and Chief Operating Officer, the presidents of North America and Overseas General insurance operations, and the leader for global underwriting and claims.

North America Insurance

Key Financial Results

Dollars in millions

Total North America P&C Insurance

2020

Gross premiums written	$26,321
Net premiums written	$21,240
Combined ratio	92.9%
Current accident year combined ratio excluding catastrophe losses	84.2%

North America Commercial P&C Insurance

2020

Gross premiums written	$18,233
Net premiums written	$14,474
Combined ratio	93.7%
Current accident year combined ratio excluding catastrophe losses	85.3%
Segment income	$2,925

North America Personal P&C Insurance

2020

Gross premiums written	$5,572
Net premiums written	$4,920
Combined ratio	91.1%
Current accident year combined ratio excluding catastrophe losses	78.7%
Segment income	$679

North America Agricultural Insurance

2020

Gross premiums written	$2,516
Net premiums written	$1,846
Combined ratio	92.0%
Current accident year combined ratio excluding catastrophe losses	90.5%
Segment income	$148

Chubb's insurance businesses in North America serve clients ranging from the largest multinationals, middle-market companies and small businesses to successful individuals and families, and the agriculture community.

For property and casualty insurers operating in North America, 2020 was anything but a typical year, with the unprecedented number of natural catastrophes, civil unrest claims and activity related to the COVID-19 pandemic. At the same time, the commercial P&C market continued to firm, creating opportunity for Chubb to bring its capabilities to more clients at more reasonable terms, conditions and rates.

"In 2020, we traded in one of the best insurance markets we've seen in two decades. But we also faced the challenges of the pandemic and the large number of catastrophes. How Chubb performed in this market was exceptional," said John Lupica, Vice Chairman, Chubb Group and President, North America Insurance. "Insurance was classified as an essential service, and Chubb was on the job 24/7. We consistently served our customers and delivered our products and services in extraordinary situations without missing a beat."

Paul Krump, Vice Chairman, Chubb Group, Global Underwriting and Claims, spoke about how the company's strengths in underwriting and claims create opportunities in this kind of a market. "In a firm market, we have to be on our front foot. When pricing moves, there inevitably is a flight to quality. With our strong balance sheet, global reach, underwriting expertise and stable presence in the market, it has been a great time to build or deepen a relationship with Chubb. Interwoven with the quality of our brand is our claims reputation. We're problem solvers, we're empathetic and we see claims as delivering on our promise."

"The hurdles of 2020 were a true test of every part of our company in every part of the world, including our businesses in North America," said John Keogh, President and Chief Operating Officer of Chubb Group. "We often use words like resilience, nimbleness and adaptability to describe Chubb. In large part, we demonstrated those to be true in this challenging year. By many measures, the efforts of our team distinguished Chubb and burnished our leadership position in the industry."

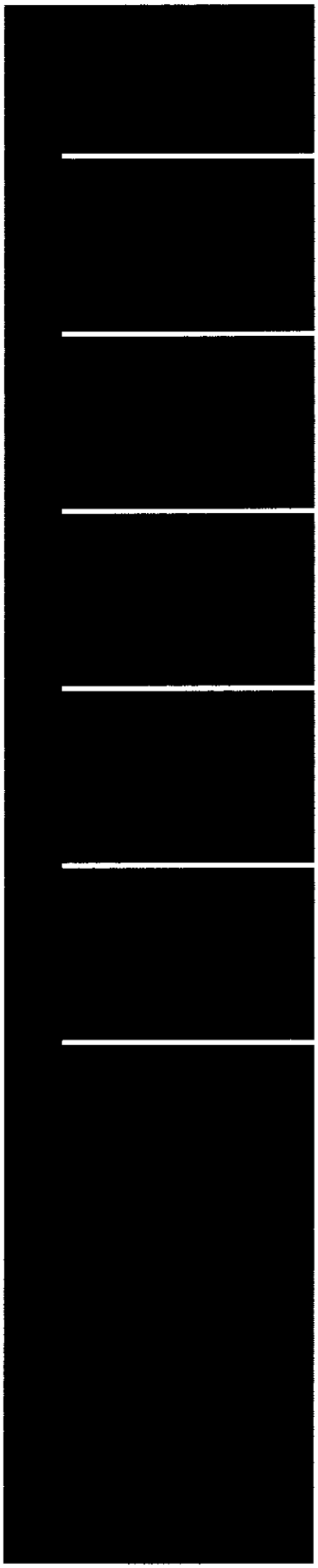
Total net premiums written for the company's North America P&C insurance businesses were $21.2 billion, up 6.4% from 2019. Chubb reported a combined ratio of 92.9% for its North American P&C insurance operations. Excluding catastrophe losses, the current accident year combined ratio was 84.2%.

North America Commercial P&C Insurance

Chubb is the largest commercial lines insurer in the U.S., offering a full range of traditional and specialty products for businesses of all sizes. Net premiums written for North America Commercial P&C Insurance increased 8.2% from 2019. The combined ratio for the segment was 93.7%. The current accident year combined ratio excluding catastrophe losses was 85.3%. Underwriting income was $887 million, and segment income was $2.9 billion.

Major Accounts, Chubb's P&C business unit that serves large corporations, is recognized for the breadth and depth of its product and service offerings, technical underwriting experience, superior client service, and global platform built

Chubb's North America Insurance Business Units



Commercial P&C insurance products for the large corporate market sold by retail brokers

Commercial P&C insurance products for middle-market and small businesses sold by independent agents and retail brokers

Personal lines coverage, including home, auto, valuables, umbrella and recreational marine insurance, for successful individuals and families sold by independent agents and brokers

Commercial P&C excess and surplus lines sold through wholesale brokers

Excess liability, financial lines, property and political risk coverages sold by large international brokers

Crop insurance from Rain and Hail and farm and other P&C coverages sold by agents and brokers

to service complex, bespoke insurance programs in many countries around the world. It's a high-touch business where Chubb, with its strong client- and broker-centric culture, has developed long-term, enduring relationships.

In 2020, the division's retention rate was nearly 90%, all while achieving more adequate rates, terms and conditions. Chubb was also distinguished by its proactive approach to engaging virtually with brokers and clients during the pandemic.

"We stayed in constant communication with our distribution partners and our clients during the work-from-home conditions of the pandemic and converted all of our traditional marketing programs to virtual, from our participation in industry events such as RIMS and CIAB to Chubb's own Client Advisory Boards," said Mr. Lupica. "Listening and staying connected were more important than ever."

In the excess and surplus (E&S) lines market, **Westchester** specializes in hard-to-place casualty, property and specialty lines for middle-market and small businesses. Westchester serves wholesale brokers who distribute these products, including specialty classes such as financial lines, product recall and cyber. Traditional brokerage accounts for about 60% of Westchester's premiums, with the balance from its small business and programs divisions.

For several years, Westchester had shrunk net premiums written in the face of a soft market. The market dynamic shifted in 2019, a trend that accelerated in 2020. Westchester's broad product set and investments in talent and digital technology positioned it to seize opportunities in this changing market. For the year, the business grew 13.4%. "Conditions in

"Insurance was classified as an essential service, and Chubb was on the job 24/7. We consistently served our customers and delivered our products and services in extraordinary situations without missing a beat."

– John Lupica

the E&S market became much more favorable and Westchester responded," said Mr. Lupica.

A similar story played out in **Chubb Bermuda**, which provides excess coverage in four product lines: casualty, property, financial lines and political risk. Chubb Bermuda operates with a high severity/low frequency business model and offers broad coverage and sizable capacity to clients and brokers around the world.

"We had watched this business shrink as it became less needed through the softest part of the cycle. But we retained our people and our operations," said Mr. Lupica. "In 2020, Chubb Bermuda reasserted its relevance in a major way, becoming a go-to market for clients looking for excess capacity."

Commercial Insurance is Chubb's division that provides P&C coverage to small and medium-sized companies with revenues up to $1 billion. In 2020, net premiums written in the division grew 6.4%.

In the middle-market segment, Chubb is distinguished by its more than 25 industry practices, each handled by teams of experienced underwriting, claims and risk engineering professionals who understand the particular exposures of that industry. The business's core package product is complemented by the industry's largest offering of standard and specialty coverages, including auto, workers compensation, marine, cyber, environmental, multinational, directors and officers (D&O) and errors and omissions (E&O) coverages.

Pandemic-related lockdowns and other restrictions created opportunities for Chubb to stand out. Chubb risk engineers, who bring technical expertise to help clients anticipate and minimize costly exposures, quickly shifted from conducting in-person site visits and ergonomic surveys to offering these services virtually. As manufacturing clients retooled their operations to produce ventilators, personal protective equipment (PPE) and other essential products to fight the pandemic, Chubb supported them by re-underwriting in-force policies. With its large life sciences industry practice, the company played a meaningful role in providing insurance coverage for companies racing to develop vaccines and therapeutics to fight COVID-19.

The pandemic, which left many commercial buildings vacant or underutilized, also brought new urgency to embrace loss prevention solutions that can detect and prevent property damage. During 2020, Chubb ramped up its program to install Internet of Things (IoT) devices that can detect water leaks, changes in temperature or humidity, and vibrations that cause damage to critical infrastructure and valuable assets. Through this innovative initiative, Chubb is helping commercial property managers monitor and identify threats to property before damage occurs. With IoT devices, Chubb has already helped hospitals, research labs, universities, libraries and other commercial property clients avoid millions of dollars of damages and disruptive, time-consuming repairs.

In the small business segment, which Chubb entered only five years ago, the company earned the highest customer satisfaction rating in the J.D. Power 2020 U.S. Small Commercial Insurance Study, which profiles the experiences of small business insurance customers with 50 or fewer employees. Chubb was recognized for its performance in five customer satisfaction factors: claims, interaction, billing and payment, policy offerings and pricing.

Throughout 2020, Chubb continued to invest in digital technology and data and analytics capabilities that make it easier for customers and agents to do business with the company while driving superior risk selection across the portfolio. New products, including personal accident and supplemental health coverage, were added to Chubb's award-winning digital platform, Marketplace, which enables agents to quote, issue and service their small and middle-market business accounts. Chubb cut average quote times and reduced the number of underwriting questions. In 2020, two-question underwriting went live for select classes of business, proving our ability to sufficiently underwrite select risks utilizing web-scraping technology to obtain answers to other important questions. Two-question underwriting will be expanded in 2021.

When the pandemic hit, small businesses faced extraordinary financial burdens. To provide support to its clients, Chubb suspended cancellation and non-renewal of coverage for non-payment and offered

discounts and credits for reduced exposures for commercial policies. Chubb also purchased $1 million in gift cards from small business clients around the country, which were donated to healthcare workers and other first responders on the front lines of the pandemic in their communities.

North America Agricultural Insurance

Chubb's Rain and Hail subsidiary is the leading crop insurer in North America. The business serves approximately 125,000 farmers, insuring more than 100 different crops on 80 million acres. Chubb's North America agriculture segment includes Chubb Agribusiness, which is focused on P&C offerings that provide commercial agricultural coverages for manufacturers, processors and distributors. Chubb also offers property insurance for farms and ranches, including hobby farms, complex corporate farms and equine services.

Crop insurance is a public-private partnership that operates with a proven model. While the results of the business are not typically correlated with the P&C insurance market cycle, crop insurance is a business with CAT-like risks, such as the severe derecho that damaged crops in the Midwest in August. Despite the storm's magnitude, it was on balance a nearly average year for crop insurance, with improved growing conditions over the prior year. In 2020, Chubb increased its policy count and continued to distinguish itself by delivering superior service and getting claims payments into the hands of farmers quickly. During the year, Chubb also acquired the renewal rights to the farm and agriculture business of Allianz Global Corporate & Specialty North America. For the year, the segment produced a combined ratio of 92.0%. Segment income was $148 million. Net premiums written were $1.8 billion.

North America Personal P&C Insurance

Chubb is the leading provider of personal lines insurance for affluent and high net worth individuals and families in the U.S. and Canada. Chubb Personal Risk Services is known for its broad product offering, superior claims and risk consulting services, and access to Chubb's extensive branch network in the U.S. and Canada. Chubb clients also benefit from the company's global presence, which offers protection for their assets around the world.

While personal lines results globally were negatively impacted by the pandemic, Chubb's business was an exception given the customer segment it serves, with net premiums written for the North America Personal P&C Insurance segment up 2.8% to $4.9 billion. The combined ratio was 91.1%. The current accident year combined ratio excluding catastrophe losses was 78.7%. Segment income was $679 million.

Investments in digital capabilities in recent years, including its mobile app and web portal, helped prepare Personal Risk Services to serve clients during the pandemic. With hurricanes and wildfires on the rise in 2020, a growing number of clients used the portal to sign up for automated updates. During the year, Chubb proactively sent out approximately 700,000 email and text alerts to clients.

During the lockdown, Chubb teams also conducted more than 30,000 virtual claims adjusting and risk consulting visits. When it was necessary for adjusters to go onsite, they did so safely for themselves and their clients.

Chubb continues to offer innovative ways to help protect clients from the everyday risks of owning a home and automobile as well as the unique risks that come with achieving considerable success in their lives and professions. Examples include Chubb Property Manager℠, which provides policyholders with assistance for second homes that suffer damage from hurricane-force winds, and Wildfire Defense Services, which monitors and protects homes threatened by wildfire. In 2020, Chubb began to roll out an IoT monitoring program for homes with wine collections. The devices can alert private collectors via a smartphone app to fluctuations in temperature, humidity and other conditions in their wine storage that can significantly alter the quality of the wine.

Chubb also joined with HODINKEE, a preeminent resource for modern and vintage wristwatch enthusiasts, to make it easy to obtain insurance coverage for watches. With HODINKEE Insurance, underwritten by Chubb, watch owners can obtain insurance via the app or online in just a few steps, streamlining the process and eliminating paperwork.

"Across all of our businesses, we focus on delivering our culture. We call it One Chubb," said Mr. Lupica. "It's about unifying the organization to deliver an experience for our distribution partners and clients that feels like you're dealing with a small company, even as you have access to Chubb's complete expertise in underwriting, claims and risk engineering along with our product breadth, branch network and global reach. We strive to deliver that organization every day."

Overseas General Insurance

Key Financial Results

Dollars in millions

Overseas General Insurance	
2020	
Gross premiums written	$11,449
Net premiums written	$9,335
Combined ratio	95.4%
Current accident year combined ratio excluding catastrophe losses	89.4%
Segment income	$904

"Our continued focus on executing our strategies contributed to the strong performance of our commercial P&C businesses in 2020, and positions our consumer businesses well as economies reopen."

– Juan Luis Ortega

Chubb's international general insurance operation is comprised of two main businesses: one with retail operations in five regions of the world and the other an E&S lines business in the London wholesale market and a presence at Lloyd's.

The firming market for commercial P&C insurance was evident in several regions and markets around the world in 2020, most strongly in the United Kingdom, Continental Europe, Australia and Hong Kong, to name a few, as well as Chubb Global Markets, the company's London market wholesale E&S business. Consumer businesses, including A&H and personal lines, particularly travel insurance, were severely curtailed by reduced economic activity related to the pandemic.

Overall, Overseas General Insurance generated net premiums written of $9.3 billion in 2020, up 2.9% in constant dollars. Commercial P&C businesses grew 10.8% while net premiums written in consumer businesses decreased 6.4%. The combined ratio for the year was 95.4%. The current accident year combined ratio excluding catastrophe losses was 89.4%, and segment income was $904 million.

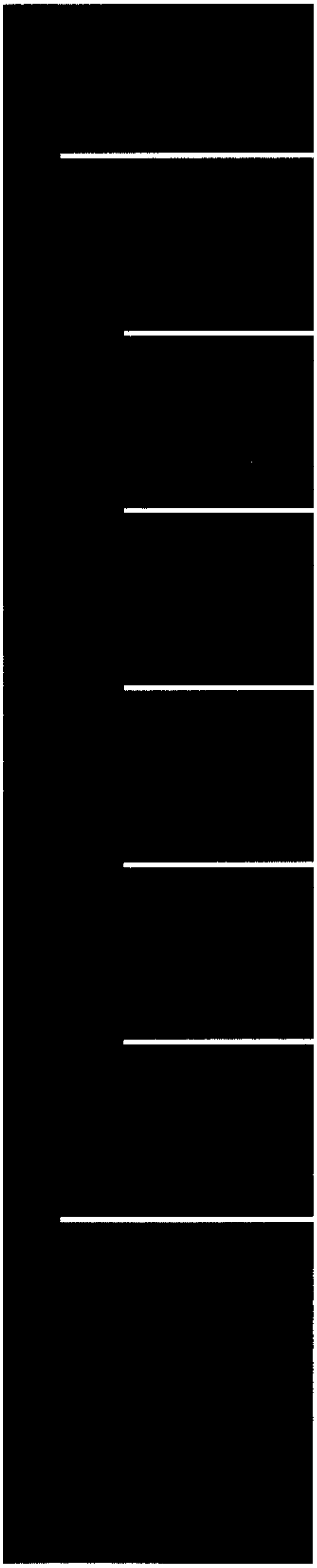
"In all of our businesses, we continued to focus on executing our strategies," said Juan Luis Ortega, Executive Vice President, Chubb Group and President, Overseas General Insurance. "In retail commercial P&C, that means further segmenting our client base, focusing on customized, specialized products and services for large corporate accounts, a hands-on approach to meet the needs of middle-market businesses, and enhancing the digital technology and platforms to deliver for our small business customers. At the same time, we made further progress expanding our distribution capabilities, through independent agents and brokers as well as our growing array of affinity partnerships. This focus contributed to the strong performance of our commercial P&C businesses in 2020, and positions our consumer businesses well as economies reopen."

"Among the many things that 2020 taught us is the power and importance of the diversity of our operations and businesses around the world," said Mr. Keogh. "We have invested over many years to build our local operations globally. The results of our international general insurance business were strong given the unprecedented impact of the pandemic, and are a testament to the strength of the Chubb franchise."

"It was incredibly rewarding to see our local overseas claim teams handle the myriad of unique COVID-19 issues that arose," said Mr. Krump. "The leaders were out-front ensuring their teams delivered practical solutions, while never compromising quality or integrity."

The **Europe** region posted the strongest growth internationally, reflecting both the firm market and the region's mix of business, which includes a higher share of commercial P&C than Chubb's other regions. Europe, which encompasses 20

Chubb's Overseas General Insurance Business Units



Commercial P&C, A&H and traditional and specialty personal lines sold by retail brokers, agents and other channels in five regions:

Operations in 20 countries comprised of P&C commercial lines and consumer lines, including A&H and specialty personal lines

Operations in 14 countries and territories serving commercial customers and consumers with P&C, A&H and personal lines

Operations in nine countries serving commercial customers with P&C products and consumers through A&H and personal lines

Operations in Japan serving commercial customers with P&C products and consumers through A&H and personal lines

Operations in seven countries serving commercial customers with P&C products and consumers through A&H and personal lines

Commercial P&C excess and surplus lines and A&H sold by wholesale brokers in the London market and through Lloyd's

countries, produced $3.2 billion of net premiums written, with significant growth in Major Accounts, Chubb's P&C business unit that serves large corporations. In a firming market, Chubb's capabilities and strengths – best-in-class service, underwriting expertise, an extensive product offering, and a broker and client-centric culture, among others – enabled the business to benefit from a flight to quality.

"Major Accounts is an exceptional franchise," said Mr. Ortega. "As the overall market struggled to get capacity, Chubb's consistency, reliability and risk appetite enabled us to grow in a substantial way with major brokers and multinational clients. In addition, the actions and preparations by Chubb in advance of Brexit ensured a seamless experience for our distribution partners and clients."

Chubb's **Asia Pacific** region generated net premiums written of $2.4 billion, down 2.2% from prior year in constant dollars. The strong performance in commercial P&C, including double-digit growth in the small commercial portfolio in Australia, was offset by the pandemic-related impact on A&H and personal lines businesses.

China, the largest economy in Asia and the second-largest in the world, continues to be an important long-term opportunity for Chubb. In 2020, the company increased its ownership stake in Huatai Insurance Group, a holding company with P&C, life and asset management subsidiaries, to

"It was incredibly rewarding to see our local overseas claim teams handle the myriad of unique COVID-19 issues that arose."

– Paul J. Krump

47.1%. When pending agreements are completed, Chubb is expected to own a majority. The group's insurance operations have over 600 branches and 17 million customers.

Chubb's **Latin America** region generated net premiums written of $1.9 billion, down 6.2% from 2019 in constant dollars. While no region was spared from the health and economic consequences of the pandemic, the toll was particularly severe in Latin America, which impacted Chubb's personal lines auto insurance business in Mexico as well as A&H across the region. On the positive side, the region produced growth in middle-market commercial P&C and signed numerous distribution partnerships that will provide future growth opportunity.

Chubb's **Far East** region, which encompasses Japan, celebrated in 2020 its 100th anniversary operating in the nation. Net premiums written were flat from 2019 in constant dollars, as double-digit growth in property and financial lines offset the impact of the pandemic on the consumer travel insurance business. The region also continued to develop its offerings for middle-market and small companies, expanding its industry practices and adding cyber insurance to the product offering.

Chubb Global Markets, which provides global access to specialist underwriters in aviation, energy, financial lines, marine, political risk and credit, property and A&H, had a year of exceptionally strong growth. Like Chubb Bermuda and Westchester in North America, Chubb Global Markets stands as an example of the company's underwriting discipline, patience and ability to shift from defense to offense. As competitors began to cut capacity or withdraw from the market, Chubb was able to bring its capabilities and risk appetite to bear. In 2020, growth in net premiums written exceeded 20% for the second consecutive year.

Continuing to diversify and expand Chubb's distribution capabilities remained a priority in 2020. In its international general insurance operations, the company's products and services are offered through 23,000 independent agents and brokers and directly to the customers of affinity partners and sponsor organizations through telemarketing and digital and mobile channels.

Worldwide, Chubb has hundreds of distribution partnerships with banks, retailers, airlines, mobile network operators and gig economy companies, among other industries.

"Our ever-expanding digital capabilities, coupled with our product breadth and claims service, have made Chubb the distribution partner of choice for companies that want to add digital insurance options to their own product and service offerings," said Mr. Ortega.

In 2020, the company launched Chubb Studio℠, a global platform that simplifies and streamlines the distribution of the company's consumer and small business insurance products through its partners' digital channels around the world. The platform has proved particularly popular in Southeast Asia and Latin America, already integrating 10 products with 25 partners across these regions. One of these was with Nubank, Brazil's largest digital bank, which launched a fully digital life insurance offering. Nubank Vida, underwritten by Chubb, entered the Brazilian insurance market with a fast, seamless and personalized capability available to its 30 million customers. The new, simple life insurance product, which is available on the bank's mobile app, requires only three questions, and quotes, bill payment, account management and claims are all transacted digitally.

"Our global capabilities have taken years to build and they are not easy to replicate. They are a sustainable competitive advantage for Chubb."

– John Keogh

Chubb's "insurance in a box" platform also created opportunities to think about new health products – and bring them to market quickly. When there was an outbreak of dengue fever in Singapore, Chubb's partner DBS, the largest banking group in Southeast Asia, wanted to offer its customers insurance coverage. The capabilities of Chubb Studio enabled the team to quickly develop and deploy Mozzie Protect, a custom product that provides financial protection for DBS customers affected by the disease. When the pandemic hit, nearly 1 million bank customers signed up for Chubb's free 30-day coverage for COVID-19. Chubb expanded its partnership with Grab, the Singapore-based technology company that offers ride-hailing transport services, food delivery and payment solutions, offering their customers on-demand per-day personal global travel insurance. Grab also moved swiftly to offer its drivers and delivery partners coverage that provided a lump sum payment upon diagnosis of COVID-19.

In Latin America, Chubb secured 15 new distribution partnerships in 2020 with both traditional partners as well as digital natives. Initiatives with existing distribution partners included the launch of multi-channel campaigns for residential, personal lines and commercial P&C coverages with Banco de Chile. Chubb doubled the number of products and services offered digitally through its exclusive long-term relationship with Mexico's Citibanamex.

In France, Chubb and Aon launched in early 2021 a new digital platform for small and medium-sized businesses. The new Aon platform, which is powered by CoverWallet, an Aon company, offers more than 10 insurance products from Chubb, and reduces the time it takes for a business owner to get insurance from days to minutes.

"Our long-term investments in agent- and broker-facing digital platforms have opened up a whole new market opportunity for us in small commercial. In Europe, Australia and Latin America, we are processing submissions on a straight-through basis that requires no human intervention," said Mr. Ortega.

While digital technology is streamlining and enhancing products, services and processes, Chubb knows that relationships and staying engaged with clients and distribution partners are essential. "Throughout the organization – from junior underwriters up through the ranks – there was great connectivity, engagement and communication with our partners and customers, even as we operated remotely," said Mr. Ortega. "Chubb was proactive, we stood out, and it made a difference."

Chubb's international general insurance operations benefit from the movement of people within the organization. One of the principal ways the company develops talent is by promoting intra- and inter-regional mobility that exposes employees to different markets and cultures. In the past three years, nearly 300 colleagues have undertaken international assignments. Every year, more than 1,200 colleagues are promoted into a new job or granted expanded responsibilities. These career progression opportunities recognize the performance of colleagues and create an environment for continuous learning.

"Our global capabilities have taken years to build and they are not easy to replicate. They are a sustainable competitive advantage for Chubb," said Mr. Keogh. "We don't take them for granted and we continue to invest in them to make them increasingly relevant to our customers across the globe."

Life Insurance

Key Financial Results

Dollars in millions

Life Insurance	
2020	
Net premiums written	$2,514
Segment income	$401
Total international life insurance net premiums written and deposits	$2,757
International life insurance segment income	$166

"We met the challenges of 2020, and continued to make progress introducing and enhancing digitally enabled products, making it easier for agents and distribution partners to interact with us and serve customers."

– Russell Bundschuh

Chubb's Life Insurance segment comprises two businesses. Chubb Life is an international life insurer, primarily focused on Asia, that provides protection and savings-oriented life insurance products to individuals and groups. Combined Insurance provides personal accident and supplemental health insurance coverages to consumers in North America.

For the year, the Life segment generated net premiums written and deposits of $2.5 billion, up 5.1%, or 5.6% in constant dollars, from prior year. Segment income was $401 million, up 9.8%.

Chubb Life

Chubb Life serves the needs of consumers through a variety of distribution channels including primarily captive agents, but also through banks, retailers, brokers, independent agents and direct marketing. Chubb Life has operations in seven Asian markets – Hong Kong, Indonesia, Korea, Myanmar, Taiwan, Thailand and Vietnam. In China, the company is also a joint venture partner in Huatai Life, a fast-growing life insurer that serves more than 1.3 million customers with a broad portfolio of savings and protection products. Together, Chubb Life and Huatai Life have 540 offices, more than 4,500 employees and approximately 100,000 agents.

While digital distribution is a growing channel for Chubb Life, face-to-face contact remains an important way the business engages with consumers – through captive agents, independent agents and at the branches of bancassurance partners. The arrival of COVID-19, and the associated lockdowns and restrictions, created challenges that impacted the business, particularly in the second and third quarters. And while Chubb Life has focused on protection-oriented products in recent years due to the low interest rate environment, consumers who bought savings and investment products tended to save less in the uncertain market created by the pandemic.

In 2020, despite the challenges, earnings were up 9.4% to $166 million. International life insurance net premiums written were up 22.1% year over year.

"We quickly moved from a face-to-face to a digital environment for selling and handling transactions," said Russell Bundschuh, Senior Vice President, Chubb Group and President of Chubb Life. "In Vietnam, for example, the investments we made in technology enabled us to shift practically overnight to virtual sales meetings and straight-through processing of applications."

An important milestone was achieved in September, when Chubb Life surpassed 100,000 captive agents in China and the rest of Asia for the first time. "We got very creative in how we approached digital recruiting," said Mr. Bundschuh. "Our recruiting was strong throughout 2020 and will position us well as economies open up and consumer activity resumes."

Early in 2020, Chubb Life launched a health and well-being initiative called Chubb LifeBalance, which is a virtual coach that offers policyholders real-time feedback on their level of activity, eating habits, sleeping patterns, and mental and emotional well-being. Chubb LifeBalance can track and recognize more than 115 activities, from walking, running, swimming and

basketball, to table tennis and yoga through a connection with a tracking app or wearable fitness device. By the end of 2020, Chubb LifeBalance was available in Hong Kong, Thailand and Korea.

Following its entry into Myanmar in late 2019, Chubb Life last year introduced its first products in the nation, including an education life insurance plan combined with life protection and savings features, as well as several affordable coverages for illness, accident and hospitalization. For existing policyholders, Chubb Life provided COVID-19 coverage for no additional premium through March 2021. Following the military coup in early 2021, Chubb Life remains available to serve its customers in Myanmar.

Across the markets where it operates, Chubb Life added pandemic-related features to policies and rolled out new riders to address consumers' emerging concerns. In many countries, for example, coverage related to hospitalization and disability due specifically to COVID-19 was enhanced and various exclusions were waived.

While Chubb Life is focused on Asia, it has operations in other parts of the world. In 2020, Chubb Life completed the integration of the operations of Banchile Seguros de Vida (Banchile Life), a Santiago, Chile-based life insurance company with a long-standing insurance relationship with Banco de Chile, the largest bank based in Chile. Banchile Life offers a broad range of life, personal accident and supplemental health insurance products. Also in Latin America, Chubb and Nubank, the largest independent digital bank in Brazil, launched a fully digital life insurance offering in Brazil, Nubank Vida, giving Chubb access to the bank's 30 million customers.

"Life insurance is a long-term business, and we have been pursuing a consistent and deliberate strategy to build Chubb Life," said Mr. Bundschuh. "We met the challenges of 2020, and continued to make progress introducing and enhancing digitally enabled products, making it easier for agents and distribution partners to interact with us and serve customers. We are well positioned as we look to the future."

Combined Insurance

For much of Combined Insurance's 99-year history, the relationship between agent and insured was forged in living rooms and over kitchen tables. In recent years, Combined Insurance has made investments to diversify distribution of its personal accident, life and supplemental health insurance coverages, as well as the market segments it serves. It's been five years since the launch of Chubb Workplace Benefits, which serves large and middle-market companies by partnering with benefit brokers, agents and consultants to offer a line of supplemental insurance products, including accident, critical illness, hospital indemnity, life and disability income.

"In recent years we've focused on diversifying away from individual, face-to-face sales, growing commercial sales, and doing more digitally. When the pandemic arrived, we accelerated our plans to transform the company," said Joe Vasquez, Senior Vice President, Chubb Group, Global Accident & Health and President of Combined Insurance. "While COVID-19 significantly impacted both our traditional sales channel and Chubb Workplace Benefits, we managed expenses effectively, took actions to enhance the customer service experience, and made progress on our digital initiatives. Combined Insurance executed well in a challenging year."

With the lockdowns, Combined Insurance agents pivoted to telephone sales. The company supported agents through this transition with training and enhanced digital capabilities, including electronic signature capabilities. For its Chubb Workplace Benefits business, the company continues to make investments to enhance customer-facing and back-office systems.

Combined Insurance is also leveraging its product breadth and capabilities to serve Chubb commercial clients of all sizes – large, middle-market and small businesses. For example, the new Chubb WorkInsight℠ solution, which was introduced in early 2021 and integrates and streamlines absence management and workplace benefits for mid-size to large employers, is made available through Chubb Workplace Benefits. The February 2021 launch of BLINK℠ by Chubb®, a brand focused on delivering easy, effortless and affordable insurance products for digitally savvy consumers, is also creating opportunities for Combined Insurance to adapt its supplemental health products for a new digital distribution channel.

Combined Insurance was again named the nation's number one Military Friendly® Employer for 2021 by VIQTORY in the $1 billion to $5 billion revenue category. This is the company's 10th consecutive year on the top 10 employer list and seventh consecutive year in the top five.

Global Reinsurance

Key Financial Results

Dollars in millions

Global Reinsurance	
2020	
Gross premiums written	$832
Net premiums written	$731
Combined ratio	92.5%
Current accident year combined ratio excluding catastrophe losses	80.1%
Segment income	$357

"At Chubb, our capital can be put to work where we can get the best return – and that flexibility is a great strength of the organization."

– James Wixtead

Chubb's reinsurance business, which operates under the Chubb Tempest Re brand, offers a broad range of products to a diverse group of primary property and casualty insurers worldwide. Doing business globally with offices in Bermuda, Stamford, London, Montreal and Zurich, the business has deep underwriting, actuarial and claims expertise.

For reinsurers, 2020 was marked by the challenges of the pandemic and heightened catastrophe losses, as well as the pressures of operating in a low interest environment. Reinsurers, along with primary carriers, are benefiting from a firming market with improving rates and better terms and conditions on the primary business. More opportunities are developing where Chubb Tempest Re can allocate capacity at acceptable risk-adjusted returns. However, the reinsurance marketplace remains competitive with only marginal improvement in reinsurance terms.

"Capital is abundant, interest rates remain low and there is greater volatility experienced from both modeled and unmodeled catastrophe risks," said James Wixtead, Senior Vice President, Chubb Group and President, Chubb Tempest Re Group. "While there is improvement in underlying margins, there remains a competitive marketplace where reinsurance terms are relatively flat and, in some cases, improving for buyers."

Chubb Tempest Re's perspective of the market and risk appetite is defined by its status as a subsidiary of a leading global P&C insurer. The business can be patient and deploy capital only when there are opportunities to achieve rate adequacy. "Chubb has optionality of how and where to deploy capacity," said Mr. Wixtead. "Our targets for an acceptable combined ratio and return on equity are sometimes higher than other market participants for which reinsurance is their only business. At Chubb, our capital can be put to work where we can get the best return – and that flexibility is a great strength of the organization."

In 2020, Chubb's Global Reinsurance segment posted net premiums written of $731 million, up 12.6% from prior year. The combined ratio was 92.5%, and the current accident year combined ratio excluding catastrophe losses was 80.1% – underwriting results that outperformed the market. Segment income was $357 million.

Chubb Tempest Re offers global capabilities, security and financial stability. The team of managers and underwriters has been very consistent and stable over many years.

"People know who we are and what we are," said Mr. Wixtead. "When we can get a reasonable risk-adjusted rate for the risk we assume, we are in the market wholeheartedly. 2020 was a transitional year where market conditions continued to firm. While we applaud the current actions, there is still need for further margin enhancement. As opportunities continue to develop, we will be ready."

Chubb Corporate and Global Functional Leaders

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Joseph Wayland
Executive Vice President, Chubb Group;
General Counsel

Julie Dillman
Senior Vice President, Chubb Group;
Global Head of Operations

Philip Bancroft
Executive Vice President, Chubb Group;
Chief Financial Officer

Timothy Boroughs
Executive Vice President, Chubb Group;
Chief Investment Officer

Jo Ann Rabitz
Global Human Resources Officer,
Chubb Group

Citizenship at Chubb

Our Mission

Protecting the Present and Building a Better Future

Good corporate citizenship lies at our core – how we practice our craft of insurance, how we work together to serve our customers, how we treat each other, and how we work to help make a better world for our communities and our planet. Citizenship is about responsibility – and we express that responsibility in a way that reflects our core values and our mission to protect the present and build a better future.

We accomplish our mission by providing the security from risk that allows people and businesses to grow and prosper. Our mission is realized by sustaining a culture that values and rewards excellence, integrity, inclusion and opportunity; by working to protect our planet and assisting less fortunate individuals and communities in achieving and sustaining productive and healthy lives; and by promoting the rule of law.

From our roots in 18th century Philadelphia, we have built Chubb to be a dynamic, forward-looking global enterprise with a commitment to responsible citizenship. We act on this promise of responsibility through a wide range of activities that include our contributions of time and money.

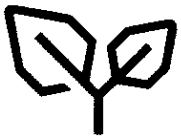
Philanthropy

The Chubb Charitable Foundation believes that meaningful contributions that support our communities globally provide lasting benefits to society, to Chubb and to Chubb employees. Through philanthropy, global partnerships and company-sponsored volunteer activities focused on giving the gift of time and donations, the foundation supports clearly defined projects that solve problems with measurable and sustainable outcomes, helping people in the countries where we live and work build productive and healthy lives.

Our philanthropy is funded principally through the Chubb Charitable Foundation and the Chubb Rule of Law Fund. Our commitment to assist those less fortunate and to be stewards of the planet is focused on the areas of education, poverty and health, and the environment. In the last decade, Chubb has contributed more than $100 million to the foundation.

For example, the Chubb Charitable Foundation has supported the International Rescue Committee. Through partnerships with The Nature Conservancy, Rainforest Trust and other conservation organizations, the foundation supports programs to save endangered wildlife, protect threatened lands and waters, and promote resiliency. Additionally, the foundation serves as a major partner for Teach for America and Teach for All programs in the U.S. and globally. In 2020, Chubb committed $10 million to pandemic relief efforts globally.

As part of our commitments to expand and enhance our broader diversity, equity and inclusion agenda, we are working through the Chubb Charitable Foundation and the Chubb Rule of Law Fund to support a range of programs to address inequality and promote social, economic and racial justice.



Environment

Chubb recognizes the reality of climate change and the substantial impact of human activity on our planet. We realize our commitment to be a steward of the earth in a number of ways: recognizing and responding to the reality of climate change across our businesses; managing environmental risk for our customers with innovative products and risk engineering solutions; supporting environmental resiliency projects throughout the world; protecting biodiversity and saving land through our philanthropy; and reducing the environmental footprint of our own operations.

Chubb develops insurance products and risk management services that facilitate market-based solutions to current and pending environmental and climate-related issues.

The Chubb Charitable Foundation and the company's employees support a range of environmental philanthropies, as well as volunteer activities in local communities around the world.

In 2019, Chubb adopted a new policy concerning coal-related underwriting and investment and established new science-based greenhouse gas (GHG) emissions reduction goals using 2016 as the baseline. By the end of 2019, the company achieved its first goal to reduce absolute GHG emissions by 20% and is committed to its long-term goal of reducing absolute GHG emissions 40% by 2035.

Diversity, Equity & Inclusion

Chubb operates within a dynamic and changing global environment where marketplaces and customers are culturally diverse and broad. Meeting diverse customer needs requires the best minds collaborating in a rewarding and supportive environment. We recognize our responsibility to ensure opportunity within our own organization by creating an atmosphere where all colleagues, regardless of who they are, feel comfortable bringing their best to the table. Our strategy for diversity, equity and inclusion (DE&I) is designed to support Chubb's ability to attract, develop and retain the best talent – regardless of background.

Chubb's culture holds true to the principles of accountability and ownership and requires collective and individual responsibility. Making and sustaining progress requires holding leadership accountable; developing and advancing diverse talent; increasing gender and multicultural leadership diversity; and deploying inclusive recruitment, development and promotional practices.

In 2020, Chubb committed to take specific actions related to racial equity in recruitment, career development and advancement opportunities; promoting a greater sense of belonging for Black colleagues; and increasing the knowledge and understanding of the Black employee experience through open two-way dialogue and education. These actions support our goal of becoming an anti-racist company.

Other DE&I initiatives include mentorships and affinity groups, such as Business Roundtables and Regional Inclusion Councils, which promote dynamic networking across the business and engage hundreds of employees in constructive dialogue.

Chubb Rule of Law Fund

As a corporate citizen, Chubb recognizes the rule of law as the foundation of a liberal world order that the company embraces as essential to the proper functioning of markets and the protection of personal freedoms. Through the Chubb Rule of Law Fund, a unique corporate initiative, we support projects around the world that promote the preservation and advancement of the rule of law.

Since it was founded in 2008, the fund has supported 62 projects in countries around the world focused on improving access to justice, strengthening courts, fighting corruption and creating the conditions of security and freedom in which our customers, employees and fellow citizens can thrive.

The events that unfolded across the U.S. in 2020 focused Chubb's attention on the persistent challenges arising from bigotry, racism and racial injustice in society, particularly for Black people. The fund has recently committed to supporting seven projects aimed at alleviating inequities in the administration of justice, including inequities arising from existing and historic racism. Among them are initiatives to improve trust and fairness in community policing, address racial disparities in the criminal justice system, build an international refugee legal regime for the 21st century and provide important training for judges in Guatemala to help promote greater independence and integrity in the judicial process.

The Chubb Rule of Law Fund is funded by the Chubb Charitable Foundation and contributions from 15 of Chubb's partner law firms.

Officers and Executives

Chubb Group Corporate Officers

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Chairman and Chief Executive Officer, Chubb Group

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Finance

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*Chubb Limited Executive Management and Executive Officer for SEC reporting purposes
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Harvard University

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David H. Sidwell

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Nominating & Governance Committee
Mary Cirillo, Chair
Michael P. Connors
John A. Edwardson

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Olivier Steimer, Chair
Michael G. Atieh
Sheila P. Burke
Eugene B. Shanks, Jr.
Frances F. Townsend

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Evan G. Greenberg, Chair
Mary Cirillo
Michael P. Connors
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Olivier Steimer

Shareholder Information

Visit investors.chubb.com, write to the Investor Relations Department at Chubb Limited or e-mail investorrelations@chubb.com for copies of the company's reports to the Securities and Exchange Commission on Form 10-K, Form 10-Q or Form 8-K, all of which are available without charge.

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New York Stock Exchange Symbol

CB

Chubb Common Shares CUSIP Number

H1467J 104

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Non-GAAP Financial Measures

Non-GAAP Financial Measures
This document contains non-GAAP financial measures. The below non-GAAP financial measures, which may be defined differently by other companies, are important for an understanding of our overall results of operations and financial condition. However, these measures should not be viewed as a substitute for measures determined in accordance with generally accepted accounting principles (GAAP).

We provide certain financial measures on a constant-dollar basis (i.e., excluding the impact of foreign exchange). 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.

Core operating income, net of tax, excludes from net income the after-tax impact of adjusted net realized gains (losses), Chubb integration expenses, and the amortization of fair value adjustment of acquired invested assets and long-term debt related to The Chubb Corporation (Chubb Corp) acquisition. We believe this presentation enhances the understanding of our results of operations by highlighting the underlying profitability of our insurance business. We exclude adjusted net realized gains (losses) because the amount of these gains (losses) are heavily influenced by, and fluctuate in part according to the availability of market opportunities. Adjusted net realized gains (losses), net of tax, includes net realized gains (losses) and net realized gains (losses) recorded in other income (expense) related to unconsolidated subsidiaries, and excludes realized gains and losses on crop derivatives. We exclude the amortization of the fair value adjustments related to purchased invested assets and long-term debt and Chubb integration expenses due to the size and complexity of this acquisition. These integration expenses are distortive to our results and are not indicative of our underlying profitability. We believe that excluding these integration expenses facilitates the comparison of our financial results to our historical operating results. References to core operating income measures mean net of tax, whether or not noted.

The following table presents the reconciliation of Net income to Core operating income:

(in millions of U.S. dollars except share and per share data)	Full Year 2020	Full Year 2019
Net income, as reported	$3,533	$4,454
Amortization of fair value adjustment of acquired invested assets and long-term debt, pre-tax	(95)	(140)
Tax benefit on amortization adjustment	17	26
Chubb integration expenses, pre-tax	-	(23)
Tax benefit on Chubb integration expenses	-	4
Adjusted realized gains (losses), pre-tax:		
Adjusted realized gains (losses)[1]	(499)	(522)
Net realized gains (losses) related to unconsolidated entities[2]	821	483
Tax (expense) benefit on adjusted net realized gains (losses)	(24)	(15)
Core operating income	$3,313	$4,641
Denominator	453,441,512	458,914,663
Diluted earnings per share		
Net income	$7.79	$9.71
Amortization of fair value adjustment of acquired invested assets and long-term debt, net of tax	(0.17)	(0.25)
Chubb integration expenses, net of tax	-	(0.04)
Adjusted net realized gains (losses), net of tax	0.65	(0.11)
Core operating income	$7.31	$10.11
% Change from prior year	-27.7%	

[1] Excludes realized gains (losses) on crop derivatives of $1 million and $(8) million for 2020 and 2019, respectively.
[2] Realized gains (losses) on partially owned entities, which are investments where we hold more than an insignificant percentage of the investee's shares. The net income or loss is included in other income (expense).

Core operating return on equity (ROE) and **Core operating return on tangible equity (ROTE)** are annualized non-GAAP financial measures. The numerator includes core operating income, net of tax. The denominator includes the average shareholders' equity for the period adjusted to exclude unrealized gains (losses) on investments, net of tax. For the ROTE calculation, the denominator is also adjusted to exclude goodwill and other intangible assets, net of tax. These measures enhance the understanding of the return on shareholders' equity by highlighting the underlying profitability relative to shareholders' equity and tangible equity excluding the effect of unrealized gains and losses on our investments.

(in millions of U.S. dollars except ratios)	Full Year 2020	Full Year 2019
Net income	$3,533	$4,454
Core operating income	$3,313	$4,641
Equity – beginning of period as reported [1]	$55,259	$50,300
Less: unrealized gains (losses) on investments, net of deferred tax	2,543	(545)
Equity – beginning of period, as adjusted	$52,716	$50,845
Less: goodwill and other intangible assets, net of tax	$20,012	$20,054
Equity – beginning of period, as adjusted, excluding goodwill and other intangible assets	$32,704	$30,791
Equity – end of period, as reported	$59,441	$55,331
Less: unrealized gains (losses) on investments, net of deferred tax	4,673	2,543
Equity – end of period, as adjusted	$54,768	$52,788
Less: goodwill and other intangible assets, net of tax	$19,916	$20,012
Equity – end of period, as adjusted, excluding goodwill and other intangible assets	$34,852	$32,776
Weighted average equity, as reported	$57,350	$52,816
Weighted average equity, as adjusted	$53,742	$51,817
Weighted average equity, as adjusted, excluding goodwill and other intangible assets	$33,778	$31,784
ROE	6.2%	8.4%
Core operating ROE	6.2%	9.0%
Core operating ROTE	9.8%	14.6%

[1] January 1, 2020 included a $72 million after-tax reduction to beginning equity principally related to the adoption of the current expected credit loss accounting guidance.

Combined ratio measures the underwriting profitability of our property & casualty business. **P&C combined ratio** and **CAY P&C combined ratio excluding Catastrophe losses (CATs)** are non-GAAP financial measures. Refer to the Non-GAAP Reconciliation section in the 2020 Form 10-K, on pages 63-66 for the definition of these non-GAAP financial measures and reconciliation to the Combined ratio.

CAY P&C combined ratio with expected level of CATs is a non-GAAP financial measure which excludes CATs above or below managements' view of expected CATs for that period. For this purpose, the normalized level of CATs, or **expected level of CATs**, is not intended to represent a probability weighted expectation for the company but rather to represent management's view of what might be more typical for a given period based on various factors, including historical experience, seasonal patterns, and consideration of both modeled CATs (e.g., windstorm and earthquake) as well as non-modeled CATs (e.g., wildfires, floods and freeze).

	Full Year 2020	Full Year 2019
Combined ratio	96.1%	90.6%
Add: impact of gains and losses on crop derivatives	0.0%	0.0%
P&C combined ratio	96.1%	90.6%
Less: Catastrophe losses	10.6%	4.1%
Less: Prior period development	-1.2%	-2.7%
CAY P&C combined ratio excluding CATs	86.7%	89.2%
Add: Expected level of CATs	3.6%	3.4%
CAY P&C combined ratio with expected level of CATs	90.3%	92.6%

The following table presents the reconciliation of Catastrophe losses, pre-tax, to Natural catastrophe losses above expected level, pre-tax:

(in millions of U.S. dollars)	Full Year 2020
COVID-19 catastrophe losses	$1,396
Natural catastrophe losses	1,742
Other catastrophe losses	145
Catastrophe losses, pre-tax	$3,283
Natural catastrophe losses	$1,742
Less: Expected level of Catastrophe losses	1,094
Natural catastrophe losses above expected level, pre-tax	$648

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. **Tangible book value excluding unrealized appreciation on investments** is adjusted to exclude unrealized gains (losses) on investments, net of tax. We exclude unrealized investment gains (losses) because the amount of these gains (losses) is heavily influenced by changes in market conditions, including interest rate changes.

(in millions of U.S. dollars, except share and per share data)	December 31 2020	December 31 2019	% Change
Shareholders' equity	$59,441	$55,331	7.4%
Less: goodwill and other intangible assets, net of tax	19,916	20,012	
Numerator for tangible book value per share	$39,525	$35,319	11.9%
Less: unrealized appreciation on investments, net of tax	4,673	2,543	
Tangible book value excluding unrealized appreciation on investments	$34,852	$32,776	6.3%
Shares outstanding	450,732,625	451,971,567	
Book value per common share	$131.88	$122.42	7.7%
Tangible book value per common share	$87.69	$78.14	12.2%
Tangible book value ex unrealized appreciation on investments per share	$77.32	$72.52	6.6%

International life insurance net premiums written and deposits is a non-GAAP financial measure which includes International life insurance net premiums written and deposits collected on universal life and investment contracts. 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. However, new life deposits are an important component of production and key to our efforts to grow our business.

(in millions of U.S. dollars)	Full Year 2020	Full Year 2019
International life insurance net premiums written	$1,198	$981
International life insurance deposits	1,559	1,463
Total international life insurance net premiums written and deposits[1]	$2,757	$2,444

[1] Excludes Combined North America and Life reinsurance businesses.

Adjusted net investment income is net investment income excluding the amortization of the fair value adjustment on acquired invested assets from the acquisition of Chubb Corp and including investment income from partially owned investment companies (private equity partnerships) where our ownership interest is in excess of three percent that are accounted for under the equity method. The mark-to-market movement on these private equity partnerships are included in adjusted net realized gains (losses). We believe this measure is meaningful as it highlights the underlying performance of our invested assets and portfolio management in support of our lines of business.

(in millions of U.S. dollars)	Full Year 2020	Full Year 2019
Net investment income	$3,375	$3,426
Less: Amortization expense of fair value adjustment on acquired invested assets	(116)	(161)
Add: Other income from private equity partnerships	115	86
Adjusted net investment income	$3,606	$3,673
% Change from prior year	-1.8%	

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2020

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

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

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, a 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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☑

The aggregate market value of voting stock held by non-affiliates as of June 30, 2020 (the last business day of the registrant's most recently completed second fiscal quarter), was approximately $57 billion. For the purposes of this computation, shares held by directors and officers of the registrant have been excluded. Such exclusion is not intended, nor shall it be deemed, to be an admission that such persons are affiliates of the registrant.

As of February 11, 2021, there were 450,224,906 Common Shares par value CHF 24.15 of the registrant outstanding.

Documents Incorporated by Reference

Certain portions of the registrant's definitive proxy statement relating to its 2021 Annual General Meeting of Shareholders are incorporated by reference into Part III of this report.

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PART I

ITEM 1. Business

General

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 December 31, 2020, we had total assets of $191 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 have grown our business through increased premium volume, expansion of product offerings and geographic reach, and the acquisition of other companies to become a global property and casualty (P&C) leader.

During 2020, we completed the purchase of an additional 16.2 percent ownership interest in Huatai Insurance Group Co., Ltd. (Huatai Group) bringing our aggregate ownership interest from 30.9 percent to 47.1 percent as of December 31, 2020. On December 30, 2019, we acquired Banchile Seguros de Vida, an insurance company providing both life and property and casualty coverages in Chile. The results of Huatai Group and Banchile Seguros de Vida are included in the Overseas General Insurance and Life Insurance segments as appropriate, determined by the type of policy written. Refer to Note 2 to the Consolidated Financial Statements for additional information.

With operations in 54 countries and territories, Chubb provides commercial and personal property and casualty insurance, personal accident and supplemental health insurance (A&H), reinsurance, and life insurance to a diverse group of clients. We provide commercial insurance products and service offerings such as risk management programs, loss control, and engineering and complex claims management. We provide specialized insurance products ranging from Directors & Officers (D&O) and professional liability to various specialty-casualty and umbrella and excess casualty lines to niche areas such as aviation and energy. We also offer personal lines insurance coverage including homeowners, automobile, valuables, umbrella liability, and recreational marine products. In addition, we supply personal accident, supplemental health, and life insurance to individuals in select countries.

We serve multinational corporations, mid-size and small businesses with property and casualty insurance and risk engineering services; affluent and high net worth individuals with substantial assets to protect; individuals purchasing life, personal accident, supplemental health, homeowners, automobile, and specialty personal insurance coverage; companies and affinity groups providing or offering accident and health insurance programs and life insurance to their employees or members; and insurers managing exposures with reinsurance coverage.

We make available free of charge through our website (investors.chubb.com, under Financials) our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, if any, filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after they have been electronically filed with or furnished to the U.S. Securities and Exchange Commission (SEC). Also available through our website (under Investor Relations / Corporate Governance) are our Corporate Governance Guidelines, Code of Conduct, and Charters for the Committees of the Board of Directors (the Board). Printed documents are available by contacting our Investor Relations Department (Telephone: +1 (212) 827-4445, E-mail: investorrelations@chubb.com).

We also use our website as a means of disclosing material, non-public information and for complying with our disclosure obligations under SEC Regulation FD (Fair Disclosure). Accordingly, investors should monitor the Investor Relations portion of our website, in addition to following our press releases, SEC filings, and 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. The SEC maintains an Internet site (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file with the SEC.

Customers

For most commercial and personal lines of business we offer, insureds typically use the services of an insurance broker or agent. An insurance broker acts as an agent for the insureds, offering advice on the types and amount of insurance to purchase, and assists in the negotiation of price and terms and conditions. We obtain business from the local and major international insurance brokers and typically pay a commission to brokers for any business accepted and bound. Loss of all or a substantial portion of the business provided by one or more of these brokers could have a material adverse effect on our business. In our

opinion, no material part of our business is dependent upon a single insured or group of insureds. We do not believe that the loss of any one insured would have a material adverse effect on our financial condition or results of operations, and no one insured or group of affiliated insureds account for as much as 10 percent of our total revenues.

Competition

Competition in the insurance and reinsurance marketplace is substantial. We compete on an international and regional basis with major U.S., Bermuda, European, and other international insurers and reinsurers and with underwriting syndicates, some of which have greater financial, technological, marketing, distribution and management resources than we do. In addition, capital market participants have created alternative products that are intended to compete with reinsurance products. We also compete with new companies and existing companies that move into the insurance and reinsurance markets. Competitors include other stock companies, mutual companies, alternative risk sharing groups (such as group captives and catastrophe pools), and other underwriting organizations. Competitors sell through various distribution channels and business models, across a broad array of product lines, and with a high level of variation regarding geographic, marketing, and customer segmentation. We compete for business not only on the basis of price but also on the basis of availability of coverage desired by customers and quality of service.

The insurance industry is changing rapidly. Our ability to compete is dependent on a number of factors, particularly our ability to maintain the appropriate financial strength ratings as assigned by independent rating agencies and effectively utilize new technology in our business. Our broad market capabilities in personal, commercial, specialty, and A&H lines made available by our underwriting expertise, business infrastructure, and global presence, help define our competitive advantage. Our strong balance sheet is attractive to businesses, and our strong capital position and global platform affords us opportunities for growth not available to smaller, less diversified insurance companies. Refer to "Segment Information" for competitive environment by segment.

Trademarks and Trade Names

Various trademarks and trade names we use protect names of certain products and services we offer and are important to the extent they provide goodwill and name recognition in the insurance industry. We use commercially reasonable efforts to protect these proprietary rights, including various trade secret and trademark laws. We intend to retain material trademark rights in perpetuity, so long as it satisfies the use and registration requirements of applicable countries. One or more of the trademarks and trade names could be material to our ability to sell our products and services. We have taken appropriate steps to protect our ownership of key names, and we believe it is unlikely that anyone would be able to prevent us from using names in places or circumstances material to our operations.

Human Capital Management

Our employees are critical to our mission to protect the present and build a better future, by providing our customers with the security from risk that allows people and businesses to grow and prosper. To accomplish this mission, we seek to attract and retain the very best insurance professionals and to provide an inclusive and supportive culture that allows all of our employees to reach their full potential as we deliver insurance solutions and claims service for individuals, families and businesses of all sizes. Our highly collaborative, inclusive approach helps us drive better business outcomes. We track and report internally on key talent metrics including employee demographics, critical role succession planning, diversity data, and employee retention and engagement. This information is regularly reported to senior management as well as the Chubb Board of Directors. At December 31, 2020, we employed approximately 31,000 people in 54 countries and territories around the world, including 53 percent in North America, 12 percent in Europe, Eurasia and Africa, 19 percent in Asia, and 16 percent in Latin America. We believe that employee relations are good.

Diversity and inclusion

Diversity and inclusion are integral to Chubb's culture. We recognize our responsibility to provide opportunity within our own organization, where we aim to foster a diverse and inclusive meritocracy. Our extensive efforts in this area include mentorships, affinity groups, diversity awareness training, and education, open dialogue on race and racism, management development programs, and considering a diverse pool of candidates in recruiting and promotion.

Examples of initiatives include Business Roundtables (our employee affinity groups) and Regional Inclusion Councils, which promote dynamic networking across the business and engage hundreds of employees in constructive dialogue. These circles of support focus on employee onboarding, development and retention and help us build stronger relationships with, and gain deeper insights into, our varied customer and distribution partner communities. Other programs include Chubb Start, which supports the continuous professional development of women who are early in their careers, and Chubb Signatures, a global and regional lecture series for successful senior women, diverse men and inclusion champions to share their unique backgrounds,

experiences and hard-earned lessons in business. In addition, we remain attuned to demographic shifts within our workforce and society to evaluate and update employee policies, procedures and systems that reflect this commitment. We depend on our culture of leadership accountability to continue progress in diversity and inclusion at Chubb.

Attraction, Development, and Retention
The foundation to Chubb's long-term success is our disciplined approach to attracting, developing and retaining the next generation of insurance professional and leaders. We strive to be an inclusive meritocracy, where all employees regardless of race, gender or background can thrive. Learning and professional development are central to the Chubb culture, and we are committed to providing opportunities to evolve professionally. Our talent development efforts are for all employee levels and we expect our employees to own and drive their development by availing themselves of the structured and unstructured learning we offer, including on-the-job training, through personal interaction and involvement, or via online and classroom learning. Chubb has made substantial investments for a robust technical and leadership development environment and, where appropriate, fills open positions with internal sourcing of talent.

Compensation and Benefits
Chubb is committed to delivering competitive compensation and benefits to its employees worldwide as a means to attract and retain a highly qualified, experienced, talented and motivated workforce. We vary and adjust our offerings to support the human resources requirements of our business in markets around the world in which we operate. Additionally, we structure our compensation programs for leaders to include a mix of short- and long-term awards, with a focus on linking pay to Chubb's performance and the enhancement of shareholder value over the medium- and long-term.

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. In 2020, consolidated net premiums earned was $33.1 billion. Additional financial information about our segments, including net premiums earned by geographic region, is included in Note 15 to the Consolidated Financial Statements.

North America Commercial P&C Insurance (42 percent of 2020 Consolidated NPE)

Overview
The North America Commercial P&C Insurance segment comprises operations that provide P&C insurance and services to large, middle market, and small commercial businesses in the U.S., Canada, and Bermuda. This segment includes:

- Major Accounts, the retail division focused on large institutional organizations and corporate companies
- Commercial Insurance, which includes the retail division focused on middle market customers and small businesses
- Westchester and Chubb Bermuda, our wholesale and specialty divisions

Products and Distribution
Major Accounts provides a broad array of commercial lines of products and services, including traditional and specialty P&C, and risk management, as well as consumer A&H products to large U.S. and Canadian-based institutional organizations and corporate companies. Major Accounts distributes its insurance products primarily through a limited number of retail brokers. In addition to using brokers, certain products are also distributed through general agents, independent agents, managing general agents (MGA), managing general underwriters, alliances, affinity groups, and direct marketing operations. Products and services offered include property, professional liability, cyber risk, excess casualty, workers' compensation, general liability, automobile liability, commercial marine, surety, environmental, construction, medical risk, inland marine, A&H coverages, as well as claims and risk management products and services.

The Major Accounts operations, which represented approximately 41 percent of North America Commercial P&C Insurance's net premiums earned in 2020, are organized into the following distinct business units, each offering specialized products and services targeted at specific markets:

- Chubb Global Casualty offers a range of customized risk management primary casualty products designed to help large insureds, including national accounts, and managing risk for workers' compensation, general liability and automobile liability coverages as well as offering casualty insurance solutions for commercial real estate. Chubb Global Casualty also provides products which insure specific global operating risks of U.S.-based multinational companies and include deductible programs, captive programs, and paid or incurred loss retrospective plans. Within Chubb Global Casualty, Chubb Alternative Risk Solutions Group underwrites contractual indemnification policies which provides prospective coverage for

loss events within the insured's policy retention levels and underwrites assumed loss portfolio transfer (LPT) contracts in which insured loss events have occurred prior to the inception of the contract.

- Property provides products and services including primary, quota share and excess all-risk insurance, risk management programs and services, commercial, inland marine, and aerospace products.
- Casualty Risk provides coverages including umbrella and excess liability, environmental risk, casualty programs for commercial construction related projects for companies and institutions, and medical risk specialty liability products for the healthcare industry.
- Surety offers a wide variety of surety products and specializes in underwriting both commercial and contract bonds and has the capacity for bond issuance on an international basis.
- Accident & Health (A&H) products include employee benefit plans, occupational accident, student accident, and worldwide travel accident and global medical programs. With respect to products that include supplemental medical and hospital indemnity coverages, we typically pay fixed amounts for claims and are therefore insulated from rising healthcare costs. A&H also provides specialty personal lines products, including credit card enhancement programs (identity theft, rental car collision damage waiver, trip travel, and purchase protection benefits) distributed through affinity groups.
- Financial Lines provides management liability and professional liability (D&O and E&O), transactional risk and cyber risk products to public companies as well as to private and not for profit organizations.
- ESIS Inc. (ESIS) is an in-house third-party claims administrator that performs claims management and risk control services for domestic and international organizations as well as for the North America Commercial P&C Insurance segment. ESIS services include comprehensive medical managed care; integrated disability services; pre-loss control and risk management; health, safety and environmental consulting; salvage and subrogation; and healthcare recovery services. The net results for ESIS are included in North America Commercial P&C Insurance's administrative expenses.

The Commercial Insurance operations, which include Small Commercial, represented approximately 40 percent of North America Commercial P&C Insurance's net premiums earned in 2020. Commercial Insurance provides a broad range of P&C, financial lines, and A&H products targeted to U.S and Canadian-based middle market customers in a variety of industries, while the Small Commercial operations provide a broad range of property and casualty, workers' compensation, small commercial management and professional liability for small businesses based in the U.S.

- Commercial Insurance products and services offered include traditional property and casualty lines of business, including Package, which combines property and general liability, workers' compensation, automobile, umbrella; financial lines of business, including professional liability, management liability and cyber risk coverage; and other lines including environmental, A&H, and international coverages. Commercial Insurance distributes its insurance products through a North American network of independent retail agents, and regional, multinational and digital brokers. Generally, our customers purchase insurance through a single retail agent or broker, do not employ a risk management department, and do not retain significant risk through self-insured retentions. The majority of our customers purchase a Package product or a portfolio of products, which is a collection of insurance offerings designed to cover various needs.
- Small Commercial Insurance products and services offered include property and casualty lines of business, including a business owner policy which contains property and general liability; financial lines, including professional liability, management liability, cyber risk; and other lines including workers' compensation, automobile liability, and international coverages. Products are generally offered through a North American network of independent agents and brokers, as well as eTraditional, which are digital platforms where we electronically quote, bind, and issue for agents and brokers. An example of this is the Chubb Marketplace.

Wholesale and Specialty, which represented approximately 19 percent of North America Commercial P&C Insurance's net premiums earned in 2020, comprises Westchester and Chubb Bermuda.

- Westchester serves the market for business risks that tend to be hard to place or not easily covered by traditional policies due to unique or complex exposures and provides specialty products for property, casualty, environmental, professional liability, inland marine, product recall, small business, binding and program coverages in the U.S., Canada, and Bermuda. Products are offered through the wholesale distribution channel.
- Chubb Bermuda provides commercial insurance products on an excess basis including excess liability, D&O, professional liability, property, and political risk, the latter being written by Sovereign Risk Insurance Ltd., a wholly-owned managing agent. Chubb Bermuda focuses on Fortune 1000 companies and targets risks that are generally low in frequency and high

in severity. Products are offered primarily through the Bermuda offices of major, internationally recognized insurance brokers.

Competitive Environment
Major Accounts competes against a number of large, global carriers as well as regional competitors and other entities offering risk alternatives such as self-insured retentions and captive programs. The markets in which we compete are subject to significant cycles of fluctuating capacity and wide disparities in price adequacy. We pursue a specialist strategy and focus on market opportunities where we can compete effectively based on service levels and product design, while still achieving an adequate level of profitability. We also achieve a competitive advantage through Major Accounts' innovative product offerings and our ability to provide multiple products to a single client due to our nationwide local presence. In addition, all our domestic commercial units are able to deliver global products and coverage to customers in concert with our Overseas General Insurance segment.

The Commercial Insurance operations compete against numerous insurance companies ranging from large national carriers to small and mid-size insurers who provide specialty coverages and standard P&C products. Recent competitive developments include the growth of new digital-based distribution models.

Westchester competes against a number of large, national carriers as well as regional competitors and other entities offering risk alternatives such as self-insured retentions and captive programs. Chubb Bermuda competes against international commercial carriers writing business on an excess of loss basis.

North America Personal P&C Insurance (15 percent of 2020 Consolidated NPE)

Overview
The North America Personal P&C Insurance segment includes the business written by Chubb Personal Risk Services division, which includes high net worth personal lines business, with operations in the U.S. and Canada. This segment provides affluent and high net worth individuals and families with homeowners, automobile and collector cars, valuable articles (including fine arts), personal and excess liability, travel insurance, and recreational marine insurance and services. Our homeowners business, including valuable articles, represented 68 percent of North America Personal P&C Insurance's net premiums earned in 2020.

Products and Distribution
Chubb Personal Risk Services offers comprehensive personal insurance products and services to meet the evolving needs of high net worth families and individuals. Our seamless customer experience and superior coverage protect not only our clients' most valuable possessions, but also their standard of living. Our target customers consist of high net worth consumers with insurance needs that typically extend beyond what mass market carriers can offer. These coverages are offered solely through independent regional agents and brokers.

Competitive Environment
Chubb Personal Risk Services competes against insurance companies of varying sizes that sell personal lines products through various distribution channels, including retail agents as well as online distribution channels. We achieve a competitive advantage through our ability to address the specific needs of high net worth families and individuals, to provide superior service to our customers, and to develop and deploy digital production and processes.

North America Agricultural Insurance (6 percent of 2020 Consolidated NPE)

Overview
The North America Agricultural Insurance segment comprises our U.S. and Canadian-based businesses that provide a variety of coverages including crop insurance, primarily Multiple Peril Crop Insurance (MPCI) and crop-hail insurance 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.

Products and Distribution
Rain and Hail provides comprehensive MPCI and crop-hail insurance coverages.

- MPCI is federally subsidized crop protection from numerous causes of loss, including drought, excessive moisture, freeze, disease and more. The MPCI program is offered in conjunction with the U.S. Department of Agriculture. MPCI products include revenue protection (defined as providing both commodity price and yield coverages), yield protection, margin protection, prevented planting coverage and replant coverage. For additional information on our MPCI program, refer to "Crop Insurance" under Item 7.
- Crop-Hail coverage provides crop protection from damage caused by hail and/or fire, with options in some markets for other perils such as wind or theft. Coverage is provided on an acre-by-acre basis and is available in the U.S. and in some parts of Canada. Crop-Hail can be used in conjunction with MPCI or other comprehensive coverages to offset the deductible and provide protection up to the actual cash value of the crop.

Chubb Agribusiness comprises Commercial Agribusiness and Farm and Ranch Agribusiness.

- Commercial Agribusiness offers specialty P&C coverages for commercial companies that manufacture, process and distribute agricultural products. Commercial products and services include property, general liability for premises/operations and product liability, commercial automobile, workers' compensation, employment practices liability coverage, built-in coverage for premises pollution, cyber and information security, and product withdrawal.

- Farm and Ranch Agribusiness offers an extensive line of coverages for farming operations from Hobby/Gentleman farms to complex corporate farms and equine services including personal use, boarding, and training. Coverages include farm and ranch structures, machinery and other equipment, automobile and other vehicle coverages, and livestock.

Competitive Environment
Rain and Hail primarily operates in a federally regulated program where all approved providers offer the same product forms and rates through independent and/or captive agents. We seek a competitive advantage through our ability to provide superior service to our customers, including the development of digital solutions. Chubb Agribusiness competes against both national and regional competitors offering specialty P&C insurance coverages to companies that manufacture, process, and distribute agricultural products.

Overseas General Insurance (28 percent of 2020 Consolidated NPE)

Overview
The Overseas General Insurance segment comprises Chubb International and Chubb Global Markets (CGM). CGM, our London-based international specialty and excess and surplus lines business, includes Lloyd's of London (Lloyd's) Syndicate 2488, a wholly-owned Chubb syndicate supported by funds at Lloyd's provided by Chubb Corporate Members. Syndicate 2488 has an underwriting capacity of £550 million for the Lloyd's 2021 account year. The syndicate is managed by Chubb's Lloyd's managing agency, Chubb Underwriting Agencies Limited.

Products and Distribution
Chubb International maintains a presence in every major insurance market in the world and is organized geographically along product lines as follows: Europe, Asia Pacific and Far East, Eurasia and Africa, and Latin America. Products offered include commercial P&C lines, including specialty coverages and services, and consumer lines, including A&H and personal lines insurance products. Chubb International's P&C business is generally written, on both a direct and assumed basis, through major international, regional, and local brokers and agents. Certain branded products are also offered via digital-commerce platforms, allowing agents and brokers to quote, bind, and issue policies at their convenience. Property insurance products include traditional commercial fire coverage, as well as energy industry-related, marine, construction, and other technical coverages. Principal casualty products are commercial primary and excess casualty, environmental, and general liability. A&H and other consumer lines products are distributed through brokers, agents, direct marketing programs, including thousands of telemarketers, and sponsor relationships. The A&H operations primarily offer personal accident and supplemental medical coverages including accidental death, business/holiday travel, specified disease, disability, medical and hospital indemnity, and income protection. We are not in the primary healthcare business. With respect to our supplemental medical and hospital indemnity products, we typically pay fixed amounts for claims and are therefore largely insulated from the direct impact of rising healthcare costs. Chubb International specialty coverages include D&O, professional indemnity, cyber, surety, aviation, political risk, and specialty personal lines products. Chubb International personal lines operations provide a wide range of consumer lines

products to meet the needs of specific target markets around the world. Products include high net worth homes, traditional homeowners, automobile, and specialty products that cover smart phones, spectacles and personal cyber risk.

Chubb International's presence in China also includes its 47.1 percent ownership interest in Huatai Group. Huatai Group wholly owns Huatai Property & Casualty Insurance Co., Ltd. (Huatai P&C). Therefore, Chubb owns an approximately 47.1 percent indirect ownership interest in Huatai P&C, which provides a range of commercial and personal P&C products in China, including property, professional liability, product liability, employer liability, business interruption, marine cargo, personal accident and specialty risk. These products are marketed through a variety of distribution channels including over 200 licensed sales locations in 28 Chinese provinces. Chubb is in the process of increasing its ownership interest in Huatai Group.

CGM offers products through its parallel distribution network via two legal entities, Chubb European Group SE (CEG) and Chubb Underwriting Agencies Limited, managing agent of Syndicate 2488. CGM uses the Syndicate to underwrite P&C business on a global basis through Lloyd's worldwide licenses. CGM uses CEG to underwrite similar classes of business through its network of U.K. and European licenses, and in the U.S. where it is eligible to write excess and surplus lines business. Factors influencing the decision to place business with the Syndicate or CEG include licensing eligibilities, capitalization requirements, and client/broker preference. All business underwritten by CGM is accessed through registered brokers. The main lines of business include aviation, property, energy, professional lines, marine, financial lines, and political risk.

Competitive Environment

Chubb International's primary competitors include U.S.-based companies with global operations, as well as non-U.S. global carriers and indigenous companies in regional and local markets. For the A&H lines of business, locally based competitors also include financial institutions and bank owned insurance subsidiaries. Our international operations have the distinct advantage of being part of one of the few international insurance groups with a global network of licensed companies able to write policies on a locally admitted basis. The principal competitive factors that affect the international operations are underwriting expertise and pricing, relative operating efficiency, product differentiation, producer relations, and the quality of policyholder services. A competitive strength of our international operations is our global network and breadth of insurance programs, which assist individuals and business organizations to meet their risk management objectives, while also having a significant presence in all of the countries in which we operate, giving us the advantage of accessing local technical expertise and regulatory environments, understanding local markets and culture, accomplishing a spread of risk, and offering a global network to service multinational accounts.

CGM is one of the preeminent international specialty insurers in London and is an established lead underwriter on a significant portion of the risks it underwrites for all lines of business. All lines of business face competition, depending on the business class, from Lloyd's syndicates, the London market, and other major international insurers and reinsurers. Competition for international risks is also seen from domestic insurers in the country of origin of the insured. CGM differentiates itself from competitors through long standing experience in its product lines, its multiple insurance entities (Syndicate 2488 and CEG), and the quality of its underwriting and claims service.

Global Reinsurance (2 percent of 2020 Consolidated NPE)

Overview

The Global Reinsurance segment represents Chubb's reinsurance operations comprising Chubb Tempest Re Bermuda, Chubb Tempest Re USA, Chubb Tempest Re International, and Chubb Tempest Re Canada. Global Reinsurance markets reinsurance products worldwide under the Chubb Tempest Re brand name and provides solutions for small to mid-sized clients and multinational ceding companies. Global Re offers a broad array of traditional and non-traditional (e.g., loss portfolio transfer) property and casualty products.

Products and Distribution

Global Reinsurance services clients globally through its major units. Major international brokers submit business to one or more of these units' underwriting teams who have built strong relationships with both key brokers and clients by providing a responsive, client-focused approach to risk assessment and pricing. Global Reinsurance's diversified portfolio is produced through reinsurance intermediaries.

Chubb Tempest Re Bermuda principally provides property catastrophe reinsurance to insurers of commercial and personal property. Property catastrophe reinsurance is on an occurrence or aggregate basis and protects a ceding company against an accumulation of losses covered by its issued insurance policies, arising from a common event or occurrence. Chubb Tempest Re Bermuda underwrites reinsurance principally on an excess of loss basis, meaning that its exposure only arises after the ceding

company's accumulated losses have exceeded the attachment point of the reinsurance policy. Chubb Tempest Re Bermuda also writes other types of reinsurance on a limited basis for selected clients.

Chubb Tempest Re USA writes all lines of traditional and specialty P&C reinsurance for the North American market, principally on a treaty basis, with a focus on writing property and casualty reinsurance. Chubb Tempest Re USA underwrites reinsurance on both a proportional and excess of loss basis.

Chubb Tempest Re International provides traditional and specialty P&C reinsurance to insurance companies worldwide, with emphasis on non-U.S. and non-Canadian risks. Chubb Tempest Re International writes all lines of traditional and specialty reinsurance including property, property catastrophe, casualty, marine, and specialty through our London- and Zurich-based offices. Chubb Tempest Re International underwrites reinsurance on both a proportional and excess of loss basis.

Chubb Tempest Re Canada offers a full array of traditional and specialty P&C, and reinsurance to the Canadian market, including casualty, property, property catastrophe, surety, and crop hail. Chubb Tempest Re Canada provides coverage through its Canadian company platform. Chubb Tempest Re Canada underwrites reinsurance on both a proportional and excess of loss basis.

Competitive Environment

The Global Reinsurance segment competes worldwide with major U.S. and non-U.S. reinsurers as well as reinsurance departments of numerous multi-line insurance organizations. In addition, capital markets participants have developed alternative capital sources intended to compete with traditional reinsurance. Additionally, government sponsored or backed catastrophe funds can affect demand for reinsurance. Global Reinsurance is typically involved in the negotiation and quotation of the terms and conditions of the majority of the contracts in which it participates. Global Reinsurance competes effectively in P&C markets worldwide because of Chubb's strong capital position, analytical capabilities, experienced underwriting team and quality customer service. The key competitors in our markets vary by geographic region and product line. An advantage of our international platform is that we can change our mix of business in response to changes in competitive conditions in the territories in which we operate. Our geographic reach is also sought by multinational ceding companies since our offices, except for Bermuda, provide local reinsurance license capabilities which benefit our clients in dealing with country regulators.

Life Insurance (7 percent of 2020 Consolidated NPE)

Overview

The Life Insurance segment comprises Chubb's international life operations (Chubb Life), Chubb Tempest Life Re (Chubb Life Re), and the North American supplemental A&H and life business of Combined Insurance.

Products and Distribution

Chubb Life provides individual life and group benefit insurance primarily in Asia, including Hong Kong, Indonesia, South Korea, Taiwan, Thailand, Vietnam, and Myanmar; throughout Latin America; selectively in Europe; Egypt; and in China through our direct and indirect investments in Huatai Group and Huatai Life Insurance Co., Ltd. (Huatai Life). Chubb Life offers a broad portfolio of protection and savings products including whole life, endowment plans, individual term life, group term life, medical and health, personal accident, credit life, universal life, Group Employee benefits, unit linked contracts, and credit protection insurance for automobile, motorcycle and home loans. The policies written by Chubb Life generally provide funds to beneficiaries of insureds after death and/or protection and/or savings benefits while the contract owner is living. Chubb Life sells to consumers through a variety of distribution channels including captive and independent agencies, bancassurance, worksite marketing, retailers, brokers, telemarketing, mobilassurance, and direct to consumer marketing. We continue to expand Chubb Life with a focus on opportunities in developing markets that we believe will result in strong and sustainable operating profits as well as a favorable return on capital commitments over time. Our dedicated captive agency distribution channel, whereby agents sell Chubb Life products exclusively, enables us to maintain direct contact with the individual consumer, promote quality sales practices, and exercise greater control over the future of the business. We have developed a substantial sales force of agents principally located in our Asia-Pacific countries. As of December 31, 2020, Chubb had a 57.5 percent direct and indirect ownership interest in Huatai Life, comprising a 20 percent direct ownership interest as well as a 37.5 percent indirect ownership interest through Huatai Group, the parent company of Huatai Life. Huatai Life commenced operations in 2005 and has since grown to become one of the larger life insurance foreign joint ventures in China. Huatai Life offers a broad portfolio of insurance products including whole life, universal life, medical and health, personal accident and disability. These products are marketed through a variety of distribution channels including approximately 454 licensed sales locations in 20 Chinese provinces. Chubb is in the process of increasing its ownership interest in Huatai Group. We also have an indirect investment in Huatai Asset Management, a third-party investment management firm, through our direct ownership in Huatai Group.

Chubb Life Re's core business is a Bermuda-based operation which provides reinsurance to primary life insurers, focusing on guarantees included in certain variable annuity products and also on more traditional mortality reinsurance protection. Chubb Life Re's U.S.-based traditional life reinsurance operation was discontinued for new business in January 2010. Since 2007, Chubb Life Re has not quoted on new opportunities in the variable annuity reinsurance marketplace and our focus has been on managing the current portfolio of risk, both in the aggregate and on a contract basis. This business is managed with a long-term perspective and short-term net income volatility is expected.

Combined Insurance distributes specialty supplemental A&H and life insurance products targeted to middle income consumers and businesses in the U.S. and Canada. Combined Insurance's substantial North American sales force distributes a wide range of supplemental accident and sickness insurance products, including personal accident, short-term disability, critical illness, Medicare supplement products, and hospital confinement/recovery. Most of these products are primarily fixed-indemnity benefit obligations and are not directly subject to escalating medical cost inflation.

Competitive Environment

Chubb Life's competition differs by location but generally includes multinational insurers, and in some locations, local insurers, joint ventures, or state-owned insurers. Chubb's financial strength and reputation as an entrepreneurial organization with a global presence gives Chubb Life a strong base from which to compete. While Chubb Life Re is not currently quoting on new opportunities in the variable annuity reinsurance marketplace, we continue to monitor developments in this market. Combined Insurance competes for A&H business in the U.S. against numerous A&H and life insurance companies across various industry segments.

Corporate

Corporate results primarily include results of all run-off asbestos and environmental (A&E) exposures, the results of our run-off Brandywine business, the results of Westchester specialty operations for 1996 and prior years, certain other run-off exposures, and income and expenses not attributable to reportable segments and the results of our non-insurance companies. The run-off operations do not actively sell insurance products, but are responsible for the management of existing policies and settlement of related claims.

Our exposure to A&E claims principally arises out of liabilities acquired when we purchased Westchester Specialty in 1998, CIGNA's P&C business in 1999, and The Chubb Corporation in 2016. The A&E liabilities principally relate to claims arising from bodily-injury claims related to asbestos products and remediation costs associated with hazardous waste sites.

Underwriting

Chubb is an underwriting company and we strive to emphasize quality of underwriting rather than volume of business or market share. Our underwriting strategy is to manage risk by employing consistent, disciplined pricing and risk selection. This, coupled with writing a number of less cyclical product lines, has helped us develop flexibility and stability of our business, and has allowed us to maintain a profitable book of business throughout market cycles. Clearly defined underwriting authorities, standards, and guidelines coupled with a strong underwriting audit function are in place in each of our local operations and global profit centers. Global product boards ensure consistency of approach and the establishment of best practices throughout the world. Our priority is to help ensure adherence to criteria for risk selection by maintaining high levels of experience and expertise in our underwriting staff. In addition, we employ a business review structure that helps ensure control of risk quality and appropriate use of policy limits and terms and conditions. Underwriting discipline is at the heart of our operating philosophy.

Actuaries in each region work closely with the underwriting teams to provide additional expertise in the underwriting process. We use internal and external data together with sophisticated analytical, catastrophe loss and risk modeling techniques to ensure an appropriate understanding of risk, including diversification and correlation effects, across different product lines and territories. We recognize that climate changes and weather patterns are integral to our underwriting process and we continually adjust our process to address these changes. This is intended to help ensure that exposures are priced appropriately and resulting losses are contained within our risk tolerance and appetite for individual product lines, businesses, and Chubb as a whole. Our use of such tools and data also reflects an understanding of their inherent limitations and uncertainties.

We also purchase protection from third parties, including, but not limited to, reinsurance as a tool to diversify risk and limit the net loss potential of catastrophes and large or unusually hazardous risks. For additional information refer to "Risk Factors" under Item 1A, "Reinsurance Protection", below, "Catastrophe Management" and "Natural Catastrophe Property Reinsurance Program", under Item 7, and Note 5 to the Consolidated Financial Statements, under Item 8.

Reinsurance Protection

As part of our risk management strategy, we purchase reinsurance protection to mitigate our exposure to losses, including certain catastrophes, to a level consistent with our risk appetite. Although reinsurance agreements contractually obligate our reinsurers to reimburse us for an agreed-upon portion of our gross paid losses, reinsurance does not discharge our primary liability to our insureds and, thus, we ultimately remain liable for the gross direct losses. In certain countries, reinsurer selection is limited by local laws or regulations. In most countries there is more freedom of choice, and the counterparty is selected based upon its financial strength, claims settlement record, management, line of business expertise, and its price for assuming the risk transferred. In support of this process, we maintain a Chubb authorized reinsurer list that stratifies these authorized reinsurers by classes of business and acceptable limits. This list is maintained by our Reinsurance Security Committee (RSC), a committee comprising senior management personnel and a dedicated reinsurer security team. Changes to the list are authorized by the RSC and recommended to the Chair of the Risk and Underwriting Committee. The reinsurers on the authorized list and potential new markets are regularly reviewed and the list may be modified following these reviews. In addition to the authorized list, there is a formal exception process that allows authorized reinsurance buyers to use reinsurers already on the authorized list for higher limits or different lines of business, for example, or other reinsurers not on the authorized list if their use is supported by compelling business reasons for a particular reinsurance program.

A separate policy and process exists for captive reinsurance companies. Generally, these reinsurance companies are established by our clients or our clients have an interest in them. It is generally our policy to obtain collateral equal to the expected losses that may be ceded to the captive. Where appropriate, exceptions to the collateral requirement are granted but only after senior management review. Specific collateral guidelines and an exception process are in place for the North America Commercial P&C Insurance, North America Personal P&C Insurance, and Overseas General Insurance segments, all of which have credit management units evaluating the captive's credit quality and that of their parent company. The credit management units, working with actuaries, determine reasonable exposure estimates (collateral calculations), ensure receipt of collateral in an acceptable form, and coordinate collateral adjustments as and when needed. Financial reviews and expected loss evaluations are performed annually for active captive accounts and as needed for run-off exposures. In addition to collateral, parental guarantees are often used to enhance the credit quality of the captive.

In general, we seek to place our reinsurance with highly rated companies with which we have a strong trading relationship. For additional information refer to "Catastrophe Management" and "Natural Catastrophe Property Reinsurance Program" under Item 7, and Note 5 to the Consolidated Financial Statements, under Item 8.

Unpaid Losses and Loss Expenses

We establish reserves for unpaid losses and loss expenses, which are estimates of future payments on reported and unreported claims for losses and related expenses, with respect to insured events that have occurred. These reserves are recorded in Unpaid losses and loss expenses in the Consolidated balance sheets. The process of establishing loss and loss expense reserves for P&C claims can be complex and is subject to considerable uncertainty as it requires the use of informed estimates and judgments based on circumstances known at the date of accrual. These estimates and judgments are based on numerous factors, and may be revised as additional experience and other data become available and are reviewed, as new or improved methodologies are developed, or as laws change. Internal actuaries regularly analyze the levels of loss and loss expense reserves, taking into consideration factors that may impact the ultimate settlement value of the unpaid losses and loss expenses. These analyses could result in future changes in the estimates of loss and loss expense reserves or reinsurance recoverables and any such changes would be reflected in our results of operations in the period in which the estimates are changed. Losses and loss expenses are charged to income as incurred. The reserve for unpaid losses and loss expenses represents the estimated ultimate losses and loss expenses less paid losses and loss expenses, and comprises case reserves and incurred but not reported (IBNR) reserves. 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. In connection with such structured settlements and certain reserves for unsettled claims, we carried net discounted reserves of $68 million at December 31, 2020.

For each product line, management, after consultation with internal actuaries, develops a "best estimate" of the ultimate settlement value of the unpaid losses and loss expenses that it believes provides a reasonable estimate of the required reserve. We evaluate our estimates of reserves quarterly in light of developing information. While we are unable at this time to determine

whether additional reserves may be necessary in the future, we believe that our reserves for unpaid losses and loss expenses are adequate at December 31, 2020. Future additions to reserves, if needed, could have a material adverse effect on our financial condition, results of operations, and cash flows. For additional information refer to "Critical Accounting Estimates – Unpaid losses and loss expenses", under Item 7, and Note 7 to the Consolidated Financial Statements, under Item 8.

Investments

Our objective is to maximize investment income and total return while ensuring an appropriate level of liquidity, investment quality, and diversification. As such, Chubb's investment portfolio is invested primarily in investment-grade fixed-income securities as measured by the major rating agencies. We do not allow leverage in our investment portfolio. The critical aspects of the investment process are controlled by Chubb Asset Management, an indirect wholly-owned subsidiary of Chubb. These aspects include asset allocation, portfolio and guideline design, risk management, and oversight of external asset managers. In this regard, Chubb Asset Management:

- conducts formal asset allocation modeling for each of the Chubb subsidiaries, providing formal recommendations for the portfolio's structure;
- establishes recommended investment guidelines that are appropriate to the prescribed asset allocation targets;
- provides the analysis, evaluation, and selection of our external investment advisors;
- establishes and develops investment-related analytics to enhance portfolio engineering and risk control;
- monitors and aggregates the correlated risk of the overall investment portfolio; and
- provides governance over the investment process for each of our operating companies to ensure consistency of approach and adherence to investment guidelines.

Under our guidance and direction, external asset managers conduct security and sector selection and transaction execution. Use of multiple managers benefits Chubb in several ways – it provides us with operational and cost efficiencies, diversity of styles and approaches, innovations in investment research and credit and risk management, all of which enhance the risk adjusted returns of our portfolios.

Chubb Asset Management determines the investment portfolio's allowable, targeted asset allocation and ranges for each of the segments. These asset allocation targets are derived from sophisticated asset and liability modeling that measures correlated histories of returns and volatility of returns. Allowable investment classes are further refined through analysis of our operating environment including expected volatility of cash flows, potential impact on our capital position, and regulatory and rating agency considerations.

The Board has established a Risk & Finance Committee which helps execute the Board's supervisory responsibilities pertaining to enterprise risk management including investment risk. Under the overall supervision of the Risk & Finance Committee, Chubb's governance over investment management is rigorous and ongoing. Among its responsibilities, the Risk & Finance Committee of the Board:

- reviews and approves asset allocation targets and investment policy to ensure that it is consistent with our overall goals, strategies, and objectives;
- reviews and approves investment guidelines to ensure that appropriate levels of portfolio liquidity, credit quality, diversification, and volatility are maintained; and
- systematically reviews the portfolio's exposures including any potential violations of investment guidelines.

We have long-standing global credit limits for our entire portfolio across the organization and for individual obligors. 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.

Within the guidelines and asset allocation parameters established by the Risk & Finance Committee, individual investment committees of the segments determine tactical asset allocation. Additionally, these committees review all investment-related activity that affects their operating company, including the selection of outside investment advisors, proposed asset allocation changes, and the systematic review of investment guidelines.

For additional information regarding the investment portfolio, including breakdowns of the sector and maturity distributions, refer to Note 3 to the Consolidated Financial Statements under Item 8.

Regulation
Our insurance and reinsurance subsidiaries conduct business globally, including in all 50 states of the United States, the District of Columbia and all U.S. Territories. Our business is subject to varying degrees of regulation and supervision in each of the jurisdictions in which our insurance and reinsurance subsidiaries are domiciled and on a group basis. The laws and regulations of the jurisdictions in which our insurance and reinsurance subsidiaries are domiciled require among other things that these subsidiaries maintain minimum levels of statutory capital, surplus, and liquidity, meet solvency standards, and submit to periodic examinations of their financial condition. The complex regulatory environments in which Chubb operates are subject to change and are regularly monitored.

Group Supervision
In 2012, the Pennsylvania Insurance Department (Department), in consultation with other insurance regulatory bodies that oversee Chubb's insurance activities, convened the first Chubb Supervisory College (College). The Department, in cooperation with the other supervisory college regulators, published a notice of its determination that it is the appropriate group-wide supervisor for Chubb.

Since 2012, the College has convened bi-annually primarily in-person, with the most recent College convened in September 2020, albeit virtually. In July 2017, the College convened its first interim regulators-only College teleconference, with the most recent teleconference held in September 2019. During these meetings, the College reviewed extensive information about Chubb, without material adverse comment. Given the virtual nature of the September 2020 College, another in-person College is tentatively scheduled for September 2021 in Philadelphia, Pennsylvania.

The following is an overview of regulations for our operations in Switzerland, the U.S., Bermuda, and other international locations.

Swiss Operations
The Swiss Financial Market Supervisory Authority (FINMA) has the discretion to supervise Chubb on a group-wide basis. However, FINMA acknowledges the Department's assumption of group supervision over us.

In 2008, we formed Chubb Insurance (Switzerland) Limited which offers property and casualty insurance to Swiss companies, A&H insurance for individuals of Swiss Corporations as well as reinsurance predominantly in Continental Europe. We have also formed a reinsurance subsidiary named Chubb Reinsurance (Switzerland) Limited, which we operate as primarily a provider of reinsurance to Chubb entities. Both companies are licensed and governed by FINMA.

U.S. Operations
Our U.S. insurance subsidiaries are subject to extensive regulation and supervision by the states in which they do business. The laws of the various states establish departments of insurance with broad authority to regulate, among other things: the standards of solvency that must be met and maintained, the licensing of insurers and their producers, approval of policy forms and rates, the nature of and limitations on investments, restrictions on the size of the risks which may be insured under a single policy, deposits of securities for the benefit of policyholders, requirements for the acceptability of reinsurers, periodic examinations of the affairs of insurance companies, the form and content of reports of financial condition required to be filed, and the adequacy of reserves for unearned premiums, losses, and other exposures.

Our U.S. insurance subsidiaries are required to file detailed annual and quarterly reports with state insurance regulators. In addition, our U.S. insurance subsidiaries' operations and financial records are subject to examination at regular intervals by state regulators.

All states have enacted legislation that regulates insurance holding companies. This legislation provides that each U.S. insurance company in the insurance holding company system (system) is required to register with the insurance department of its state of domicile and furnish information concerning the operations of companies within the system that may materially affect the operations, management, or financial condition of our U.S. insurers. We are required to file an annual enterprise risk report with the Department, identifying the material risks within our system that could pose enterprise risk to our U.S. insurers. All transactions within a system must be fair and equitable. Notice to the insurance departments is required prior to the consummation of transactions affecting the ownership or control of an insurer and of certain material transactions between an insurer and an entity in its system. In addition, certain transactions may not be consummated without the department's prior approval.

We are also required to file annually with the Department a disclosure report that identifies our corporate governance practices and a report reflecting our internal assessment of material risks associated with our current business plan and the sufficiency of our capital resources to support those risks.

Statutory surplus is an important measure used by the regulators and rating agencies to assess our U.S. insurance subsidiaries' ability to support business operations and provide dividend capacity. Our U.S. insurance subsidiaries are subject to various state statutory and regulatory restrictions that limit the amount of dividends that may be paid without prior approval from regulatory authorities. These restrictions differ by state, but are generally based on calculations incorporating statutory surplus, statutory net income, and/or investment income.

The National Association of Insurance Commissioners (NAIC) has a risk-based capital requirement for P&C insurance companies. This risk-based capital formula is used by many state regulatory authorities to identify insurance companies that may be undercapitalized and which merit further regulatory attention. These requirements are designed to monitor capital adequacy using a formula that prescribes a series of risk measurements to determine a minimum capital amount for an insurance company, based on the profile of the individual company. The ratio of a company's actual policyholder surplus to its minimum capital requirement will determine whether any state regulatory action is required. There are progressive risk-based capital failure levels that trigger more stringent regulatory action. If an insurer's policyholders' surplus falls below the Mandatory Control Level (70 percent of the Authorized Control Level, as defined by the NAIC), the relevant insurance commissioner is required to place the insurer under regulatory control.

However, an insurance regulator may allow a P&C company operating below the Mandatory Control Level that is writing no business and is running off its existing business to continue its run-off. Brandywine is running off its liabilities consistent with the terms of an order issued by the Insurance Commissioner of Pennsylvania. This includes periodic reporting obligations to the Department.

Government intervention continued in the insurance and reinsurance markets in relation to terrorism coverage in the U.S. (and through industry initiatives in other countries). The U.S. Terrorism Risk Insurance Act (TRIA), which was enacted in 2002 to ensure the availability of insurance coverage for certain types of terrorist acts in the U.S., was extended in December 2019 through December 31, 2027, and applies to certain of our operations.

From time to time, Chubb and its subsidiaries and affiliates receive inquiries from state agencies and attorneys general, with which we generally comply, seeking information concerning business practices, such as underwriting and non-traditional or loss mitigation insurance products. Moreover, many recent factors, such as consequences of and reactions to industry and economic conditions and focus on domestic issues, have contributed to the potential for change in the legal and regulatory framework applicable to Chubb's U.S. operations and businesses. We cannot assure that changes in laws or investigative or enforcement activities in the various states in the U.S. will not have a material adverse impact on our financial condition, results of operations, or business practices.

We are subject to numerous U.S. federal and state laws governing the protection of personal and confidential information of our clients or employees. These laws and regulations are increasing in complexity, and the requirements are extensive and detailed. Numerous states require us to certify our compliance with their data protection laws.

We are subject to the New York Department of Financial Services' Cybersecurity Regulation (the NYDFS Cybersecurity Regulation) which mandates detailed cybersecurity standards for all institutions, including insurance entities, authorized by the NYDFS to operate in New York. Among the requirements are the maintenance of a cybersecurity program with governance controls, risk-based minimum data security standards for technology systems, cyber breach preparedness and response requirements, including reporting obligations, vendor oversight, training, and program record keeping and certification obligations. Because our North America systems are integrated, our companies domiciled in other states may also be impacted by this requirement.

Additionally, the NAIC adopted an Insurance Data Security Model Law, which requires licensed insurance entities to comply with detailed information security requirements. The NAIC model law is similar in many respects to the NYDFS Cybersecurity Regulation.

Bermuda Operations

The Insurance Act 1978 of Bermuda and related regulations, as amended (the Insurance Act), regulates the insurance business of our Bermuda domiciled (re)insurance subsidiaries (Bermuda domiciled subsidiaries) and provides that no person may carry on any insurance business in or from within Bermuda unless registered as an insurer by the Bermuda Monetary Authority (BMA). The Insurance Act imposes solvency and liquidity standards and auditing and reporting requirements on Bermuda insurance companies and grants the BMA powers to supervise, investigate, and intervene in the affairs of insurance companies.

Bermuda domiciled subsidiaries must prepare and file with the BMA, audited annual statutory financial statements and audited annual financial statements prepared in accordance with accounting principles generally accepted in the U.S. (GAAP), International Financial Reporting Standards (IFRS), or any such other generally accepted accounting principles as the BMA may recognize. The GAAP audited financial statements are made public by the BMA. The Insurance Act prescribes rules for the preparation and content of the statutory financial statements that require Bermuda domiciled subsidiaries to give detailed information and analyses regarding premiums, claims, reinsurance, and investments. In addition, each year, the Bermuda domiciled insurers are required to file with the BMA a capital and solvency return along with an annual statutory financial return. The prescribed form of capital and solvency return is comprised of the BMA's risk based capital model, termed the Bermuda Solvency Capital Requirement (BSCR) or an approved internal capital model in lieu thereof; a statutory economic balance sheet; the approved actuary's opinion; and several prescribed schedules. The BSCR is a tool to assist the BMA both in measuring risk and in determining appropriate levels of capitalization. The BSCR employs a standard mathematical model that correlates the risk underwritten by Bermuda insurers to their capital. The BSCR framework applies a standard measurement format to the risk associated with an insurer's assets, liabilities, and premiums, including a formula to take into account catastrophe risk exposure.

The BMA established risk-based regulatory capital adequacy and solvency margin requirements for Bermuda insurers that mandate that a Bermuda domiciled subsidiary's Enhanced Capital Requirement (ECR) be calculated by either (a) BSCR, or (b) an internal capital model which the BMA has approved for use for this purpose. The Bermuda domiciled subsidiaries use the BSCR in calculating their solvency requirements. Bermuda statutory reporting rules include an Economic Balance Sheet (EBS) framework. The EBS framework is embedded as part of the BSCR and forms the basis of our ECR.

In order to minimize the risk of a shortfall in capital arising from an unexpected adverse deviation and in moving towards the implementation of a risk based capital approach, the BMA has established a threshold capital level, (termed the Target Capital Level (TCL)), set at 120 percent of ECR, that serves as an early warning tool for the BMA. Failure to maintain statutory capital at least equal to the TCL would likely result in increased BMA regulatory oversight.

Under the BMA's powers to set standards on public disclosure under the Insurance Act, the Bermuda domiciled subsidiaries are required to prepare and publish a Financial Condition Report (FCR). The FCR provides details of measures governing the business operations, corporate governance framework, solvency and financial performance. The FCR must be filed with the BMA and requires Bermuda insurance companies to make the FCR publicly available.

Under the Insurance Act, Chubb's Bermuda domiciled subsidiaries are prohibited from declaring or paying any dividends of more than 25 percent of total statutory capital and surplus, as shown in its previous financial year statutory balance sheet, unless at least seven days before payment of the dividends, it files with the BMA an affidavit signed by at least two directors of the relevant Chubb Bermuda domiciled subsidiary (one of whom must be a director resident in Bermuda) and by the relevant Chubb Bermuda domiciled subsidiary's principal representative, that it will continue to meet its required solvency margins. Furthermore, Bermuda domiciled subsidiaries may only declare and pay a dividend from retained earnings and a dividend or distribution from contributed surplus if it has no reasonable grounds for believing that it is, or would after the payment be, unable to pay its liabilities as they become due, or if the realizable value of its assets would be less than the aggregate of its liabilities.

In addition, Chubb's Bermuda domiciled subsidiaries must obtain the BMA's prior approval before reducing total statutory capital, as shown in its previous financial year's financial statements, by 15 percent or more.

Other International Operations
The extent of insurance regulation varies significantly among the countries in which non-U.S. Chubb operations conduct business. While each country imposes licensing, solvency, auditing, and financial reporting requirements, the type and extent of the requirements differ substantially. For example:

- in some countries, insurers are required to prepare and file monthly and/or quarterly financial reports, and in others, only annual reports;
- some regulators require intermediaries to be involved in the sale of insurance products, whereas other regulators permit direct sales contact between the insurer and the customer;
- the extent of restrictions imposed upon an insurer's use of local and offshore reinsurance vary;
- policy form filing and rate regulation vary by country;
- the frequency of contact and periodic on-site examinations by insurance authorities differ by country; and
- regulatory requirements relating to insurer dividend policies vary by country.

Significant variations can also be found in the size, structure, and resources of the local regulatory departments that oversee insurance activities. Certain regulators prefer close relationships with all subject insurers and others operate a risk-based approach.

Chubb operates in some countries through subsidiaries and in some countries through branches of subsidiaries. Local capital requirements applicable to a subsidiary generally include its branches. Certain Chubb companies are jointly owned with local companies to comply with legal requirements for local ownership. Other legal requirements include discretionary licensing procedures, compulsory cessions of reinsurance, local retention of funds and records, data privacy and protection program requirements such as the General Data Protection Regulation (GDPR), and foreign exchange controls. Chubb's international companies are also subject to multinational application of certain U.S. laws.

There are various regulatory bodies and initiatives that impact Chubb in multiple international jurisdictions and the potential for significant impact on Chubb could be heightened as a result of recent industry and economic developments.

Enterprise Risk Management
As an insurer, Chubb is in the business of profitably managing risk for its customers. Since risk management must permeate an organization conducting a global insurance business, we have an established Enterprise Risk Management (ERM) framework that is integrated into management of our businesses and is led by Chubb's senior management. As a result, ERM is a part of the day-to-day management of Chubb and its operations.

Our global ERM framework is broadly multi-disciplinary and its strategic objectives include:

- **External Risks**: identify, analyze, quantify, and where possible, mitigate significant external risks that could materially hamper the financial condition of Chubb and/or the achievement of corporate business objectives over the next 36 months;
- **Exposure Accumulations**: identify and quantify the accumulation of exposure to individual counterparties, products or industry sectors, particularly those that materially extend across or correlate between business units or divisions and/or the balance sheet;
- **Risk Modeling**: develop and use various data-sets, analytical tools, metrics and processes (such as economic capital models and advanced analytics, including catastrophe models to quantify natural catastrophe risk for product pricing, risk management, capital allocation and to simulate and estimate hurricane losses) that help business and corporate leaders make informed underwriting, portfolio management and risk management decisions within a consistent risk/reward framework;
- **Governance**:
    - establish and coordinate risk guidelines that reflect the corporate appetite for risk;
    - monitor exposure accumulations relative to established guidelines; and
    - ensure effective internal risk management communication up to management and the Board, (including our Risk & Finance Committee and our Nominating & Governance Committee), down to the various business units and legal entities, and across the firm; and
- **Disclosure**: develop protocols and processes for risk-related disclosure internally as well as externally to rating agencies, regulators, shareholders and analysts.

Chubb Group's Risk and Underwriting Committee (RUC) reports to and assists the Chief Executive Officer in the oversight and review of the ERM framework which covers the processes and guidelines used to manage the entire landscape of insurance, financial, strategic, and operational risks. The RUC is chaired by Chubb Group's Chief Risk Officer. The RUC meets at least monthly, and is comprised of Chubb Group's most senior executives which, in addition to the Chair, includes the Chief Executive Officer, the President and Chief Operating Officer, Chief Financial Officer, Chief Investment Officer, Chief Actuary, Chief Claims Officer, General Counsel, President – North America Commercial and Personal Insurance, President – North America Major Accounts and Specialty Insurance, President – Overseas General Insurance, and Chief Underwriting Officer.

The RUC is assisted in its activities by Chubb's Enterprise Risk Unit (ERU) and Product Boards. The ERU is responsible for the collation and analysis of risk insight in two key areas. The first relates to external information that provides insight to the RUC on existing or emerging risks that might significantly impact Chubb's key objectives while the second involves internal risk aggregations arising from Chubb's business writings and other activities such as investments and operations. The ERU is independent of the operating units and reports to our Chief Risk Officer. The Product Boards exist to provide oversight for products that we offer globally. A Product Board currently exists for each of Chubb's major product areas. Each Product Board is responsible for ensuring consistency in underwriting and pricing standards, identification of emerging issues, and guidelines for relevant accumulations.

Chubb's Chief Risk Officer also reports to the Board's Risk & Finance Committee, which helps execute the Board's supervisory responsibilities pertaining to ERM. The role of the Risk & Finance Committee includes evaluation of the integrity and effectiveness of our ERM procedures, systems, and information; governance on major policy decisions pertaining to risk aggregation and minimization; and assessment of our major decisions and preparedness levels pertaining to perceived material risks. The Audit Committee meets with the Risk & Finance Committee at least annually in order to exercise its duties under New York Stock Exchange Rules.

Others within the overall ERM structure contribute toward accomplishing Chubb's ERM objectives, including regional management, Corporate Underwriting, Internal Audit, Compliance, external consultants, and managers of our internal control processes and procedures.

Tax Matters

Refer to "Risk Factors", under Item 1A and Note 1 o) and Note 8 to the Consolidated Financial Statements, under Item 8.

Information about our Executive Officers

Name	Age	Position
Evan G. Greenberg	66	Chairman, Chief Executive Officer, and Director
John W. Keogh	56	President and Chief Operating Officer
Philip V. Bancroft	61	Executive Vice President and Chief Financial Officer
John J. Lupica	55	Vice Chairman; President, North America Insurance
Joseph F. Wayland	63	Executive Vice President and General Counsel
Sean Ringsted	58	Executive Vice President, Chief Digital Officer, and Chief Risk Officer
Timothy A. Boroughs	71	Executive Vice President and Chief Investment Officer
Paul J. Krump	61	Vice Chairman, Global Underwriting and Claims
Juan Luis Ortega	46	Executive Vice President; President, Overseas General Insurance

Evan G. Greenberg has been a director of Chubb Limited since August 2002. Mr. Greenberg was elected Chairman of the Board of Directors in May 2007. Mr. Greenberg was appointed to the position of President and Chief Executive Officer of Chubb Limited in May 2004, and in June 2003, was appointed President and Chief Operating Officer of Chubb Limited. Mr. Greenberg was appointed to the position of Chief Executive Officer of Chubb Overseas General in April 2002. He joined Chubb as Vice Chairman, Chubb Limited, and Chief Executive Officer of Chubb Tempest Re in November 2001. Prior to joining Chubb, Mr. Greenberg was most recently President and Chief Operating Officer of American International Group (AIG), a position he held from 1997 until 2000. Mr. Greenberg was a director of The Coca-Cola Company from February 2011 until October 2016.

John W. Keogh was appointed President of Chubb in December 2020, and has served as Chief Operating Officer since July 2011. Mr. Keogh joined Chubb in 2006 as Chairman, Insurance – Overseas General. Mr. Keogh was appointed Vice Chairman in 2010 and Executive Vice Chairman in 2015. Before joining Chubb, Mr. Keogh held a range of positions with increasing responsibility during a 20-year career with American International Group (AIG), including Senior Vice President, Domestic General Insurance, and President and Chief Executive Officer of National Union Fire Insurance Company of Pittsburgh, an AIG member company. He began his insurance career as an underwriter with AIG in 1986.

Philip V. Bancroft was appointed Chief Financial Officer of Chubb Limited in January 2002. For nearly 20 years, Mr. Bancroft worked for PricewaterhouseCoopers LLP. Prior to joining Chubb, he served as partner-in-charge of the New York Regional Insurance Practice. Mr. Bancroft had been a partner with PricewaterhouseCoopers LLP for ten years. Mr. Bancroft plans to retire on July 1, 2021.

John J. Lupica was appointed President, North America Insurance in September 2020, and has served as Vice Chairman of Chubb Limited and Chubb Group Holdings since November 2013. Prior to his current role, Mr. Lupica served as President, North America Major Accounts and Specialty Insurance since January 2016. Mr. Lupica was appointed Chairman, Insurance - North America, in July 2011. Mr. Lupica had been Chief Operating Officer, Insurance - North America, since 2010 and President of ACE USA since 2006. He also previously served as Division President of U.S. Professional Risk business and U.S. Regional Operations. Mr. Lupica joined Chubb as Executive Vice President of Professional Risk in 2000. Prior to joining Chubb, he served as Senior Vice President for Munich-American Risk Partners, Inc. He also held various management positions at AIG.

Joseph F. Wayland was appointed Executive Vice President of Chubb Limited in January 2016, General Counsel and Secretary of Chubb Limited in July 2013. Mr. Wayland joined Chubb from the law firm of Simpson Thacher & Bartlett LLP, where he was a partner since 1994. From 2010 to 2012, he served in the United States Department of Justice, first as Deputy Assistant Attorney General of the Antitrust Division, and was later appointed as the Acting Assistant Attorney General in charge of that division.

Sean Ringsted was appointed Executive Vice President and Chief Digital Officer in February 2017 and Chief Risk Officer in November 2008. Mr. Ringsted previously served as Chief Actuary of Chubb Limited from November 2008 to January 2017. Mr. Ringsted's previous roles at Chubb also include Chief Actuary for Chubb Group from 2004 to 2008, Executive Vice President and Chief Risk Officer for Chubb Tempest Re from 2002 to 2004, and Senior Vice President and Chief Actuary for Chubb Tempest Re from 1998 to 2002. Prior to joining Chubb, Mr. Ringsted was a consultant at Tillinghast-Towers Perrin.

Timothy A. Boroughs was appointed Executive Vice President and Chief Investment Officer of Chubb Group in June 2000. Prior to joining Chubb, Mr. Boroughs was Director of Fixed Income at Tudor Investment Corporation from 1997 to 2000, and Managing Partner and Director of Global Leveraged Investment Activity at Fischer Francis Trees & Watts from 1976 to 1997.

Paul J. Krump was appointed Vice Chairman, Global Underwriting and Claims in September 2020. Prior to his current role, Mr. Krump served as Executive Vice President, Chubb Group and President North America Commercial and Personal Insurance since January 2016. Before Chubb Limited's January 2016 acquisition of The Chubb Corporation, Mr. Krump was Chief Operating Officer of The Chubb Corporation, responsible for the company's Commercial, Specialty, Personal and Accident & Health insurance lines; Claims; Global Field Operations; Information Technology; Human Resources; Communications; and External Affairs. Mr. Krump joined The Chubb Corporation in 1982 as a commercial underwriting trainee in the Minneapolis office. He held numerous headquarters and field positions in the United States and Europe, including President of Personal Lines and Claims and President of Commercial and Specialty Lines.

Juan Luis Ortega was appointed Executive Vice President, Chubb Group and President, Overseas General Insurance in August 2019. Mr. Ortega previously served as Senior Vice President, Chubb Group and Regional President of Latin America since 2016 and Regional President of Asia Pacific from 2013 to 2016. Mr. Ortega's previous roles at Chubb also include Senior Vice President, Accident & Health, for the Asia Pacific region from 2011 to 2013 and Senior Vice President and Regional Head of Accident & Health for the Latin America region from 2008 to 2010. Mr. Ortega joined Chubb in 1999 and advanced through a series of accident and health and credit insurance management positions in Miami, Puerto Rico and Mexico, before being named Country President of Chile in 2005.

ITEM 1A. Risk Factors

Factors that could have a material impact on our results of operations or financial condition are outlined below. Additional risks not presently known to us or that we currently deem insignificant may also impair our business or results of operations as they become known or as facts and circumstances change. Any of the risks described below could result in a material adverse effect on our results of operations or financial condition.

Insurance

Our results of operations or financial condition could be adversely affected by the occurrence of natural and man-made disasters.

We have substantial exposure to losses resulting from natural disasters, man-made catastrophes such as terrorism or cyber-attack, and other catastrophic events, including pandemics. This could impact a variety of our businesses, including our commercial and personal lines, and life and accident and health (A&H) products. Catastrophes can be caused by various events, including hurricanes, typhoons, earthquakes, hailstorms, droughts, explosions, severe winter weather, fires, war, acts of terrorism, nuclear accidents, political instability, and other natural or man-made disasters, including a global or other wide-impact pandemic or a significant cyber-attack. The incidence and severity of catastrophes are inherently unpredictable and our losses from catastrophes could be substantial. In addition, climate change and resulting changes in global temperatures, weather patterns, and sea levels may both increase the frequency and severity of natural catastrophes and the resulting losses in the future and impact our risk modeling assumptions. We cannot predict the impact that changing climate conditions, if any, may have on our results of operations or our financial condition. Additionally, we cannot predict how legal, regulatory and/or social responses to concerns around global climate change may impact our business. The occurrence of claims from catastrophic events could result in substantial volatility in our results of operations or financial condition for any fiscal quarter or year. Although we attempt to manage our exposure to such events through the use of underwriting controls, risk models, and the purchase of third-party reinsurance, catastrophic events are inherently unpredictable and the actual nature of such events when they occur could be more frequent or severe than contemplated in our pricing and risk management expectations. As a result, the occurrence of one or more catastrophic events could have an adverse effect on our results of operations and financial condition.

COVID-19 pandemic, the effects of global actions taken to contain its spread, and its economic and societal impact could adversely impact our businesses, invested assets, financial condition, and results of operations.

COVID-19 pandemic (the "virus" or the "pandemic") is causing significant disruption to public health, the global economy, financial markets, and commercial, social and community activity generally. The pandemic has had a significant effect on our company's business operations and, depending on the course of the pandemic and government responses, may have a significant effect on current and future financial results. We may experience higher levels of loss and, claims activity in certain lines of business in excess of losses we have already recognized, and our premiums could also be adversely affected by any further suppression of global commercial activity that results in a reduction in insurable assets and other exposure. Financial conditions resulting from the pandemic may also have a negative effect on the value and quality of our portfolio of invested assets, thereby adversely affecting our investment returns and increasing our credit and related risk. Certain lines of our business, such as our variable annuity life reinsurance business, may require additional forms of collateral in the event of a decline in the securities and benchmarks to which those repayment mechanisms are linked.

To protect our employees and in response to the global and regional restrictions on interpersonal contact and travel because of the pandemic, much of our work force may be working remotely, either for extended periods or intermittently, in response to changing health and regulatory conditions, placing increased demands on our IT systems. While we have continued to conduct our business effectively throughout the pandemic, there is no assurance that our ability to continue to function in this environment will not be adversely affected by an extended disruption in the telecommunications and internet infrastructures that support our remote work capability.

If actual claims exceed our loss reserves, our financial results could be adversely affected.

Our results of operations and financial condition depend upon our ability to accurately assess the potential losses associated with the risks that we insure and reinsure. We establish reserves for unpaid losses and loss expenses, which are estimates of future payments of reported and unreported claims for losses and related expenses, with respect to insured events that have occurred at or prior to the balance sheet date. The process of establishing reserves can be highly complex and is subject to considerable variability as it requires the use of informed estimates and judgments.

Actuarial staff in each of our segments regularly evaluates the levels of loss reserves. Any such evaluation could result in future changes in estimates of losses or reinsurance recoverables and would be reflected in our results of operations in the period in which the estimates are changed. Losses and loss expenses are charged to income as incurred. During the loss settlement period, which can be many years in duration for some of our lines of business, additional facts regarding individual claims and trends often will become known which may result in a change in overall reserves. In addition, application of statistical and actuarial methods may require the adjustment of overall reserves upward or downward from time to time.

Included in our loss reserves are liabilities for latent claims such as asbestos and environmental (A&E), which are principally related to claims arising from remediation costs associated with hazardous waste sites and bodily-injury claims related to exposure to asbestos products and environmental hazards. At December 31, 2020, gross A&E liabilities represented approximately 2.8 percent of our gross loss reserves. The estimation of these liabilities is subject to many complex variables including: the current legal environment; specific settlements that may be used as precedents to settle future claims; assumptions regarding trends with respect to claim severity and the frequency of higher severity claims; assumptions regarding the ability to allocate liability among defendants (including bankruptcy trusts) and other insurers; the ability of a claimant to bring a claim in a state in which it has no residency or exposure; the ability of a policyholder to claim the right to non-products coverage; whether high-level excess policies have the potential to be accessed given the policyholder's claim trends and liability situation; payments to unimpaired claimants; and the potential liability of peripheral defendants. Accordingly, the ultimate settlement of losses, arising from either latent or non-latent causes, may be significantly greater or less than the loss and loss expense reserves held at the balance sheet date. In addition, the amount and timing of the settlement of our P&C liabilities are uncertain and our actual payments could be higher than contemplated in our loss reserves owing to the impact of insurance, judicial decisions, and/or social inflation. If our loss reserves are determined to be inadequate, we may be required to increase loss reserves at the time of the determination and our net income and capital may be reduced.

The effects of emerging claim and coverage issues on our business are uncertain.
As industry practices and legislative, regulatory, judicial, social, financial, technological and other environmental conditions change, unexpected and unintended issues related to claims and coverage may emerge. These issues may adversely affect our business by either extending coverage beyond our underwriting intent or by increasing the frequency and severity of claims. In some instances, these changes may not become apparent until after we have issued insurance or reinsurance contracts that are affected by the changes. For example, recently enacted "reviver" legislation in certain states does allow civil claims relating to molestation and abuse to be asserted against policyholders that would otherwise be barred by statutes of limitations. As a result, the full extent of liability under our insurance or reinsurance contracts may not be known for many years after issuance.

The failure of any of the loss limitation methods we use could have an adverse effect on our results of operations and financial condition.
We seek to manage our loss exposure by maintaining a disciplined underwriting process throughout our insurance operations. We also look to limit our loss exposure by writing a number of our insurance and reinsurance contracts on an excess of loss basis. Excess of loss insurance and reinsurance indemnifies the insured against losses in excess of a specified amount. In addition, we limit program size for each client and purchase third-party reinsurance for our own account. In the case of our assumed proportional reinsurance treaties, we seek per occurrence limitations or loss and loss expense ratio caps to limit the impact of losses ceded by the client. In proportional reinsurance, the reinsurer shares a proportional part of the premiums and losses of the reinsured. We also seek to limit our loss exposure by geographic diversification. Geographic zone limitations involve significant underwriting judgments, including the determination of the area of the zones and the inclusion of a particular policy within a particular zone's limits.

However, there are inherent limitations in all of these tactics and no assurance can be given against the possibility of an event or series of events that could result in loss levels that could have an adverse effect on our financial condition or results of operations. It is also possible that losses could manifest themselves in ways that we do not anticipate and that our risk mitigation strategies are not designed to address. Additionally, various provisions of our policies, such as limitations or exclusions from coverage or choice of forum negotiated to limit our risks, may not be enforceable in the manner we intend. As a result, one or more natural catastrophes and/or terrorism or other events could result in claims that substantially exceed our expectations, which could have an adverse effect on our results of operations and financial condition.

We may be unable to purchase reinsurance, and/or if we successfully purchase reinsurance, we are subject to the possibility of non-payment.
We purchase protection from third parties including, but not limited to, reinsurance to protect against catastrophes and other sources of volatility, to increase the amount of protection we can provide our clients, and as part of our overall risk management strategy. Our reinsurance business also purchases retrocessional protection which allows a reinsurer to cede to another company

all or part of the reinsurance originally assumed by the reinsurer. A reinsurer's or retrocessionaire's insolvency or inability or unwillingness to make timely payments under the terms of its reinsurance agreement with us could have an adverse effect on us because we remain liable to the insured. From time to time, market conditions have limited, and in some cases have prevented, insurers and reinsurers from obtaining the types and amounts of reinsurance or retrocessional reinsurance that they consider adequate for their business needs.

There is no guarantee our desired amounts of reinsurance or retrocessional reinsurance will be available in the marketplace in the future. In addition to capacity risk, the remaining capacity may not be on terms we deem appropriate or acceptable or with companies with whom we want to do business. Finally, we face some degree of counterparty risk whenever we purchase reinsurance or retrocessional reinsurance. Consequently, the insolvency of these counterparties, or the inability, or unwillingness of any of our present or future reinsurers to make timely payments to us under the terms of our reinsurance or retrocessional agreements could have an adverse effect on us. At December 31, 2020, we had $15.8 billion of reinsurance recoverables, net of reserves for uncollectible recoverables.

Certain active Chubb companies are primarily liable for A&E and other exposures they have reinsured to our inactive run-off company Century Indemnity Company (Century). At December 31, 2020, the aggregate reinsurance balances ceded by our active subsidiaries to Century were approximately $1.6 billion. Should Century's loss reserves experience adverse development in the future and should Century be placed into rehabilitation or liquidation, the reinsurance recoverables due from Century to its affiliates would be payable only after the payment in full of third-party expenses and liabilities, including administrative expenses and direct policy liabilities. Thus, the intercompany reinsurance recoverables would be at risk to the extent of the shortage of assets remaining to pay these recoverables. While we believe the intercompany reinsurance recoverables from Century are not impaired at this time, we cannot assure that adverse development with respect to Century's loss reserves, if manifested, will not result in Century's insolvency, which could result in our recognizing a loss to the extent of any uncollectible reinsurance from Century. This could have an adverse effect on our results of operations and financial condition.

Our net income may be volatile because certain products sold by our Life Insurance business expose us to reserve and fair value liability changes that are directly affected by market and other factors and assumptions.
Our pricing, establishment of reserves for future policy benefits and valuation of life insurance and annuity products, including reinsurance programs, are based upon various assumptions, including but not limited to equity market changes, interest rates, mortality rates, morbidity rates, and policyholder behavior. The process of establishing reserves for future policy benefits relies on our ability to accurately estimate insured events that have not yet occurred but that are expected to occur in future periods. Significant deviations in actual experience from assumptions used for pricing and for reserves for future policy benefits could have an adverse effect on the profitability of our products and our business.

Under reinsurance programs covering variable annuity guarantees, we assumed the risk of guaranteed minimum death benefits (GMDB) and guaranteed living benefits (GLB), principally guaranteed minimum income benefits (GMIB), associated with variable annuity contracts. We ceased writing this business in 2007. Our net income is directly impacted by the change in the reserve calculated in connection with the reinsurance of GMDB liability and by the change in the fair value of the GLB liability. Reported liabilities for both GMDB and GLB reinsurance are determined using internal valuation models which require considerable judgment and are subject to significant uncertainty. Additionally, the fair value of GLB liabilities is impacted by market conditions. Refer to the "Critical Accounting Estimates – Guaranteed living benefits (GLB) derivatives" under Item 7 and "Quantitative and Qualitative Disclosures about Market Risk – Reinsurance of GMDB and GLB guarantees" under Item 7A for additional information on the assumptions used in this program. We view our variable annuity reinsurance business as having a similar risk profile to that of catastrophe reinsurance, with the probability of long-term economic loss relatively small at the time of pricing. Adverse changes in market factors and policyholder behavior will have an impact on both Life Insurance underwriting income and consolidated net income.

Payment of obligations under surety bonds could have an adverse effect on our results of operations.
The surety business tends to be characterized by infrequent but potentially high severity losses. The majority of our surety obligations are intended to be performance-based guarantees. When losses occur, they may be mitigated, at times, by recovery rights to the customer's assets, contract payments, and collateral and bankruptcy recoveries. We have substantial commercial and construction surety exposure for current and prior customers. In that regard, we have exposures related to surety bonds issued on behalf of companies that have experienced or may experience deterioration in creditworthiness. If the financial condition of these companies were adversely affected by the economy or otherwise, we may experience an increase in filed claims and may incur high severity losses, which could have an adverse effect on our results of operations.

Our exposure to various commercial and contractual counterparties, our reliance on brokers, and certain of our policies may subject us to credit risk.
We have exposure to counterparties through a variety of commercial transactions and arrangements, including reinsurance transactions; agreements with banks, hedge funds and other investment vehicles; and derivative transactions, that expose us to credit risk in the event our counterparty fails to perform its obligations. This includes exposure to financial institutions in the form of secured and unsecured debt instruments and equity securities. Moreover, a deposit paid in connection with our agreement to acquire additional shares of Huatai Group exposes us to risk if the transaction is not completed.

In accordance with industry practice, we generally pay amounts owed on claims to brokers who, in turn, remit these amounts to the insured or ceding insurer. Although the law is unsettled and depends upon the facts and circumstances of the particular case, in some jurisdictions, if a broker fails to make such a payment, we might remain liable to the insured or ceding insurer for the deficiency. Conversely, in certain jurisdictions, if a broker does not remit premiums paid for these policies over to us, these premiums might be considered to have been paid and the insured or ceding insurer will no longer be liable to us for those amounts, whether or not we have actually received the premiums from the broker. Consequently, we assume a degree of credit risk associated with a broker with whom we transact business. However, due to the unsettled and fact-specific nature of the law, we are unable to quantify our exposure to this risk. To date, we have not experienced any material losses related to this credit risk.

Under the terms of certain high-deductible policies which we offer, such as workers' compensation and general liability, our customers are responsible to reimburse us for an agreed-upon dollar amount per claim. In nearly all cases we are required under such policies to pay covered claims first, and then seek reimbursement for amounts within the applicable deductible from our customers. This obligation subjects us to credit risk from these customers. While we generally seek to mitigate this risk through collateral agreements and maintain a provision for uncollectible accounts associated with this credit exposure, an increased inability of customers to reimburse us in this context could have an adverse effect on our financial condition and results of operations. In addition, a lack of credit available to our customers could impact our ability to collateralize this risk to our satisfaction, which in turn, could reduce the amount of high-deductible policies we could offer.

Since we depend on a few distribution and bancassurance partners for a large portion of our revenues, loss of business provided by any one of them could adversely affect us.
We market our insurance and reinsurance worldwide primarily through independent insurance agents, insurance and reinsurance brokers, and bancassurance relationships. Accordingly, our business is dependent on the willingness of these agents and brokers to recommend our products to their customers, who may also promote and distribute the products of our competitors. Deterioration in relationships with our agent and broker distribution network or their increased promotion and distribution of our competitors' products could adversely affect our ability to sell our products. Loss of all or a substantial portion of the business provided by one or more of these agents and brokers could have an adverse effect on our business.

Financial

Our investment performance may affect our financial results and our ability to conduct business.
Our investment assets are invested by professional investment management firms under the direction of our management team in accordance with investment guidelines approved by the Risk & Finance Committee of the Board of Directors. Although our investment guidelines stress diversification of risks and conservation of principal and liquidity, our investments are subject to market risks and risks inherent in individual securities. Our investment performance is highly sensitive to many factors, including interest rates, inflation, monetary and fiscal policies, and domestic and international political conditions. The volatility of our losses may force us to liquidate securities, which may cause us to incur capital losses. Realized and unrealized losses in our investment portfolio would reduce our book value, and if significant, can affect our ability to conduct business.

Volatility in interest rates could impact the performance of our investment portfolio which could have an adverse effect on our investment income and operating results. Although we take measures to manage the risks of investing in a changing interest rate environment, we may not be able to effectively mitigate interest rate sensitivity. Our mitigation efforts include maintaining a high-quality portfolio of primarily fixed income investments with a relatively short duration to reduce the effect of interest rate changes on book value. A significant increase in interest rates would generally have an adverse effect on our book value. Our life insurance investments typically focus on longer duration bonds to better match the obligations of this business. For the life insurance business, policyholder behavior may be influenced by changing interest rate conditions and require a re-balancing of duration to effectively manage our asset/liability position.

As stated, our fixed income portfolio is primarily invested in high quality, investment-grade securities. However, a smaller portion of the portfolio, approximately 18 percent at December 31, 2020, is invested in below investment-grade securities. These securities, which pay a higher rate of interest, also have a higher degree of credit or default risk and may also be less liquid in times of economic weakness or market disruptions. While we have put in place procedures to monitor the credit risk and liquidity of our invested assets, it is possible that, in periods of economic weakness (such as recession), we may experience credit or default losses in our portfolio, which could adversely affect our results of operations and financial condition.

As a part of our ongoing analysis of our investment portfolio, we are required to assess current expected credit losses for all held-to-maturity securities and evaluate expected credit losses for available-for-sale securities when fair value is below amortized cost, which considers reasonable and supportable forecasts of future economic conditions in addition to information about past events and current conditions. This analysis requires a high degree of judgment. Financial assets with similar risk characteristics and relevant historical loss information are included in the development of an estimate of expected lifetime losses. Declines in relevant stock and other financial markets and other factors impacting the value of our investments could result in an adverse effect on our net income and other financial results.

We may require additional capital or financing sources in the future, which may not be available or may be available only on unfavorable terms.
Our future capital and financing requirements depend on many factors, including our ability to write new business successfully and to establish premium rates and reserves at levels sufficient to cover losses, as well as our investment performance and capital expenditure obligations, including with respect to acquisitions. We may need to raise additional funds through financings or access funds through existing or new credit facilities or through short-term repurchase agreements. We also from time to time seek to refinance debt or credit as amounts become due or commitments expire. Any equity or debt financing or refinancing, if available at all, may be on terms that are not favorable to us. In the case of equity financings, dilution to our shareholders could result, and in any case, such securities may have rights, preferences, and privileges that are senior to those of our Common Shares. Our access to funds under existing credit facilities is dependent on the ability of the banks that are parties to the facilities to meet their funding commitments. Under Swiss law we would be prohibited from selling shares in an equity financing at a purchase price below our then-current par value. If we cannot obtain adequate capital or sources of credit on favorable terms, or at all, we could be forced to use assets otherwise available for our business operations, and our business, results of operations, and financial condition could be adversely affected.

We may be required to post additional collateral because of changes in our reinsurance liabilities to regulated insurance companies, or because of regulatory changes that affect our companies.
If our reinsurance liabilities increase, including in our property & casualty and variable annuity reinsurance businesses, we may be required to post additional collateral for insurance company clients. In addition, regulatory changes sometimes affect our obligations to post collateral. The need to post this additional collateral, if significant enough, may require us to sell investments at a loss in order to provide securities of suitable credit quality or otherwise secure adequate capital at an unattractive cost. This could adversely impact our net income and liquidity and capital resources.

U.S. and global economic and financial industry events and their consequences could harm our business, our liquidity and financial condition, and our stock price.
The consequences of adverse global or regional market and economic conditions may affect (among other aspects of our business) the demand for and claims made under our products, the ability of customers, counterparties, and others to establish or maintain their relationships with us, our ability to access and efficiently use internal and external capital resources, the availability of reinsurance protection, the risks we assume under reinsurance programs covering variable annuity guarantees, and our investment performance. The increasing impact of climate change could affect our cost of claims, loss ratios, and financial results. Volatility in the U.S. and other securities markets may adversely affect our stock price.

A decline in our financial strength ratings could affect our standing among distribution partners and customers and cause our premiums and earnings to decrease. A decline in our debt ratings could increase our borrowing costs and impact our ability to access capital markets.
Ratings are an important factor in establishing the competitive position of insurance and reinsurance companies. The objective of these rating systems is to provide an opinion of an insurer's financial strength and ability to meet ongoing obligations to its policyholders. A ratings downgrade could result in a substantial loss of business as insureds, ceding companies, and brokers move to other insurers and reinsurers with higher ratings. If one or more of our debt ratings were downgraded, we could also incur higher borrowing costs, and our ability to access the capital markets could be impacted. Additionally, we could be required to post collateral or be faced with the cancellation of policies and resulting premium in certain circumstances. We

cannot give any assurance regarding whether or to what extent any of the rating agencies might downgrade our ratings in the future.

Our ability to pay dividends and/or to make payments on indebtedness may be constrained by our holding company structure.
Chubb Limited is a holding company that owns shares of its operating insurance and reinsurance subsidiaries along with several loans receivable from affiliates. Beyond this it does not itself have any significant operations or liquid assets. Repayment of loans receivable, guarantee fees and dividends and other permitted distributions from our insurance subsidiaries are its primary sources of funds to meet ongoing cash requirements, including any future debt service payments, other expenses, repurchases of its shares, and to pay dividends to our shareholders. Some of our insurance subsidiaries are subject to significant regulatory restrictions limiting their ability to declare and pay dividends. The inability of our insurance subsidiaries to pay dividends (or other intercompany amounts due, such as intercompany debt obligations) in an amount sufficient to enable us to meet our cash requirements at the holding company level could have an adverse effect on our operations and our ability to repurchase shares and pay dividends to our shareholders.

Swiss law imposes certain restrictions on our ability to repurchase our shares.
Swiss law imposes certain withholding tax and other restrictions on a Swiss company's ability to return earnings or capital to its shareholders, including through the repurchase of its own shares. We may only repurchase shares to the extent that sufficient freely distributable reserves are available. In addition, Swiss law requires that the total par value of Chubb's acquisition of treasury shares must not be in excess of 10 percent of its total share capital. As a result, in order to maintain our share repurchase program, our shareholders must periodically authorize, through ballot item approval at our annual general meeting, a reduction in our share capital through the cancellation of designated blocks of repurchased shares held in treasury. If our shareholders do not approve the cancellation of previously repurchased shares, we may be unable to return capital to shareholders through share repurchases in the future. Furthermore, our current repurchase program relies on a Swiss tax ruling. Any future revocation or loss of our Swiss tax ruling or the inability to conduct repurchases in accordance with the ruling could also jeopardize our ability to continue repurchasing our shares.

Our operating results and shareholders' equity may be adversely affected by currency fluctuations.
Our reporting currency is the U.S. dollar. In general, we match assets and liabilities in local currencies. Where possible, capital levels in local currencies are limited to satisfy minimum regulatory requirements and to support local insurance operations. The principal currencies creating foreign exchange risk are the euro, British pound, Canadian dollar, Chinese yuan, Australian dollar, Mexican peso, Brazilian real, Korean won, Japanese yen, Thai baht, and Hong Kong dollar. At December 31, 2020, approximately 21.4 percent of our net assets were denominated in foreign currencies. We may experience losses resulting from fluctuations in the values of non-U.S. currencies, which could adversely impact our results of operations and financial condition.

Operational

The regulatory and political regimes under which we operate, and their volatility, could have an adverse effect on our business.
We may from time to time face challenges resulting from changes in applicable law and regulations in particular jurisdictions, or changes in approach to oversight of our business from insurance or other regulators.

Our insurance and reinsurance subsidiaries conduct business globally. Our businesses in each jurisdiction are subject to varying degrees of regulation and supervision. The laws and regulations of the jurisdictions in which our insurance and reinsurance subsidiaries are domiciled require, among other things, maintenance of minimum levels of statutory capital, surplus, and liquidity; various solvency standards; and periodic examinations of subsidiaries' financial condition. In some jurisdictions, laws and regulations also restrict payments of dividends and reductions of capital. Applicable statutes, regulations, and policies may also restrict the ability of these subsidiaries to write insurance and reinsurance policies, to make certain investments, and to distribute funds. The purpose of insurance laws and regulations generally is to protect policyholders and ceding insurance companies, not our shareholders. For example, some jurisdictions have enacted various consumer protection laws that make it more burdensome for insurance companies to sell policies and interact with customers in personal lines businesses. Failure to comply with such regulations can lead to significant penalties and reputational injury.

The foreign and U.S. federal and state laws and regulations that are applicable to our operations are complex and may increase the costs of regulatory compliance or subject our business to the possibility of regulatory actions or proceedings. Laws and regulations not specifically related to the insurance industry include trade sanctions that relate to certain countries, anti-money laundering laws, and anti-corruption laws. The insurance industry is also affected by political, judicial, and legal developments that may create new and expanded regulations and theories of liability. The current economic and financial climates present

additional uncertainties and risks relating to increased regulation and the potential for increased involvement of the U.S. and other governments in the financial services industry.

Regulators in countries where we have operations continue to work with the International Association of Insurance Supervisors (IAIS) to consider changes to insurance company supervision, including with respect to group supervision and solvency requirements. The IAIS has developed a Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame), which is focused on the effective group-wide supervision of international active insurance groups (IAIGs), such as Chubb. As part of ComFrame, the IAIS is developing an international capital standard for such IAIGs. The details of this global capital standard and its applicability to Chubb are evolving and uncertain at this time. In addition, Chubb businesses across the EU are subject to Solvency II, a capital and risk management regime, and our Bermuda businesses are subject to an equivalent of the EU's Solvency II regime. Also applicable to Chubb businesses are the requirements of the Swiss Financial Market Supervisory Authority (FINMA) whose regulations include Swiss Solvency Tests. There are also Risk Based Capital (RBC) requirements in the U.S. which are also subject to revision in response to global developments. The impact to Chubb of these developments remains uncertain, although currently we do not expect that our capital management strategies, results of operations and financial condition will be materially affected by these regulatory changes.

Evolving privacy and data security regulations could adversely affect our business.
We are subject to numerous U.S. federal and state laws and non-U.S. regulations governing the protection of personal and confidential information of our clients and employees, including in relation to medical records, credit card data and financial information. These laws and regulations are increasing in complexity and number, change frequently, sometimes conflict, and could expose Chubb to significant monetary damages, regulatory enforcement actions, fines and/or criminal prosecution in one or more jurisdictions.

We are subject to the New York Department of Financial Services' Cybersecurity Regulation (the NYDFS Cybersecurity Regulation) which mandates detailed cybersecurity standards for all institutions, including insurance entities, authorized by the NYDFS to operate in New York. The NYDFS Cybersecurity Regulation has increased our compliance costs and could increase the risk of noncompliance and subject us to regulatory enforcement actions and penalties, as well as reputation risk.

Additionally, the National Association of Insurance Commissioners (NAIC) adopted an Insurance Data Security Model Law, which requires licensed insurance entities to comply with detailed information security requirements. A number of states have enacted it into law, and it is not yet known whether or not, and to what extent, additional states will enact it. Such enactments, especially if inconsistent between states or with existing laws and regulations could raise compliance costs or increase the risk of noncompliance, with the attendant risk of being subject to regulatory enforcement actions and penalties, as well as reputational harm.

The EU General Data Protection Regulation (the "GDPR") is a comprehensive regulation applying across all EU member states. All our business units (regardless of whether they are located in the EU) may be subject to the GDPR when personal data is processed in relation to the offer of goods and services to individuals within the EU. Our failure to comply with GDPR and other countries' privacy or data security-related laws, rules or regulations could result in significant penalties imposed by regulators, which could have an adverse effect on our business, financial condition and results of operations.

Significant other comprehensive privacy laws have been enacted by other jurisdictions, most notably the California Consumer Privacy Act (CCPA), the California Privacy Rights Act (CPRA), and Brazil's Lei Geral de Protecao de Dados (LGPD), which may affect our use of data and could affect our operations and subject us to fines and actions for noncompliance. In the U.S., several other states are considering similar legislation, and there are ongoing discussions regarding a National Privacy Law. New laws similar to the GDPR and the CCPA are expected to be enacted in coming years in various countries and jurisdictions in which we operate.

Economic uncertainty in either or both of the United Kingdom ("U.K.") and the European Union ("EU"), and/or operational uncertainty between them, may have an adverse effect on our business, our liquidity and financial condition, and our stock price.
The U.K. ceased to be a member of the EU on January 31, 2020 ("Brexit"). Economic relations between the U.K. and the EU are now governed by a Trade and Cooperation Agreement which is limited in scope to primarily the trade of goods, transport, energy links and fishing. Uncertainties remain relating to certain aspects of the U.K.'s future economic, trading and legal relationships with the EU and with other countries, including with respect to financial services industries such as ours. Moreover, free movement of persons, services and capital between the U.K. and the EU ended on January 1, 2021, which has meant the loss to U.K./EU service sectors of the automatic right to offer such services across the EU and U.K. The overall

macroeconomic impact of Brexit - an impact which inevitably affects the volume of business we transact in Europe - is not yet clear. Throughout both the EU and U.K., we have significant investments in both financial and human resources, as well as a large portfolio of commercial and consumer insurance business. On an operational level, we have already redomiciled our primary European carriers from the U.K. to France although we will continue to have a substantial presence in London and elsewhere in the U.K.

Our worldwide operations, particularly in developing nations, expose us to global geopolitical developments that could have an adverse effect on our business, liquidity, results of operations, and financial condition.
With operations in 54 countries and territories, we provide insurance and reinsurance products and services to a diverse group of clients worldwide, including operations in various developing nations. Both current and future foreign operations could be adversely affected by unfavorable geopolitical developments including law changes; tax changes; changes in trade policies; changes to visa or immigration policies; regulatory restrictions; government leadership changes; political events and upheaval; sociopolitical instability; social, political or economic instability resulting from climate change; and nationalization of our operations without compensation. Adverse activity in any one country could negatively impact operations, increase our loss exposure under certain of our insurance products, and could, otherwise, have an adverse effect on our business, liquidity, results of operations, and financial condition depending on the magnitude of the events and our net financial exposure at that time in that country.

A failure in our operational systems or infrastructure or those of third parties, including due to security breaches or cyber-attacks, could disrupt business, damage our reputation, and cause losses.
Our operations rely on the secure processing, storage, and transmission of confidential and other information and assets, including in our computer systems and networks and those of third-party service providers. Our business depends on effective information security and systems and the integrity and timeliness of the data our information systems use to run our business. Our ability to adequately price products and services, to establish reserves, to provide effective, efficient and secure service to our customers, to value our investments and to timely and accurately report our financial results also depends significantly on the integrity and availability of the data we maintain, including that within our information systems, as well as data in and assets held through third-party service providers and systems. Although we have implemented administrative and technical controls and have taken protective actions to reduce the risk of cyber incidents and to protect our information technology and assets, and although we additionally endeavor to modify such procedures as circumstances warrant and negotiate agreements with third-party providers to protect our assets, such measures may be insufficient to prevent unauthorized access, computer viruses, malware or other malicious code or cyber-attack, business compromise attacks, catastrophic events, system failures and disruptions, employee errors or malfeasance, third party (including outsourced service providers) errors or malfeasance, loss of assets and other events that could have security consequences (each, a Security Event). As the breadth and complexity of our security infrastructure continues to grow, the potential risk of a Security Event increases. Such an event or events may jeopardize Chubb's or its clients' or counterparties' confidential and other information processed and stored within Chubb, and transmitted through its computer systems and networks, or otherwise cause interruptions, delays, or malfunctions in Chubb's, its clients', its counterparties', or third parties' operations, or result in data loss or loss of assets which could result in significant losses, reputational damage or an adverse effect on our operations and critical business functions. Chubb may be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures and to pursue recovery of lost data or assets and we may be subject to litigation and financial losses that are either not insured against or not fully covered by insurance maintained.

Despite the contingency plans and facilities we have in place and our efforts to observe the regulatory requirements surrounding information security, our ability to conduct business may be adversely affected by a disruption of the infrastructure that supports our business in the communities in which we are located, or of outsourced services or functions. This may include a disruption involving electrical, communications, transportation, or other services used by Chubb. If a disruption occurs in one location and Chubb employees in that location are unable to occupy our offices and conduct business or communicate with or travel to other locations, our ability to service and interact with clients may suffer and we may not be able to successfully implement contingency plans that depend on communication or travel.

We use analytical models to assist our decision making in key areas such as underwriting, claims, reserving, and catastrophe risks but actual results could differ materially from the model outputs and related analyses.
We use various modeling techniques (e.g., scenarios, predictive, stochastic and/or forecasting) and data analytics to analyze and estimate exposures, loss trends and other risks associated with our assets and liabilities. We use the modeled outputs and related analyses to assist us in decision-making (e.g., underwriting, pricing, claims, reserving, reinsurance, and catastrophe risk) and to maintain competitive advantage. The modeled outputs and related analyses are subject to various assumptions, uncertainties, model errors and the inherent limitations of any statistical analysis, including the use of historical internal and industry data. In addition, the modeled outputs and related analyses may from time to time contain inaccuracies, perhaps in

material respects, including as a result of inaccurate inputs or applications thereof. Climate change may make modeled outcomes less certain or produce new, non-modeled risks. Consequently, actual results may differ materially from our modeled results. If, based upon these models or other factors, we misprice our products or underestimate the frequency and/or severity of loss events, or overestimate the risks we are exposed to, new business growth and retention of our existing business may be adversely affected which could have an adverse effect on our results of operations and financial condition.

We could be adversely affected by the loss of one or more key executives or by an inability to attract and retain qualified personnel.
Our success depends on our ability to retain the services of our existing key executives and to attract and retain additional qualified personnel in the future. The loss of the services of any of our key executives or the inability to hire and retain other highly qualified personnel in the future could adversely affect our ability to conduct or grow our business. This risk may be particularly acute for us relative to some of our competitors because some of our senior executives work in countries where they are not citizens and work permit and immigration issues could adversely affect the ability to retain or hire key persons. We do not maintain key person life insurance policies with respect to our employees.

Employee error and misconduct may be difficult to detect and prevent and could adversely affect our business, results of operations, and financial condition.
Losses may result from, among other things, fraud, errors, failure to document transactions properly, failure to obtain proper internal authorization, failure to comply with underwriting or other internal guidelines, or failure to comply with regulatory requirements. It is not always possible to deter or prevent employee misconduct and the precautions that we take to prevent and detect this activity may not be effective in all cases. Resultant losses could adversely affect our business, results of operations, and financial condition.

Strategic

The continually changing landscape, including competition, technology and products, and existing and new market entrants could reduce our margins and adversely impact our business and results of operations.
Insurance and reinsurance markets are highly competitive. We compete on an international and regional basis with major U.S., Bermuda, European, and other international insurers and reinsurers and with underwriting syndicates, some of which have greater financial, technological, marketing, distribution and/or management resources than we do. In addition, capital market participants have created alternative products that are intended to compete with reinsurance products. We also compete with new companies and existing companies that move into the insurance and reinsurance markets. If competition, or technological or other changes to the insurance markets in which we operate, limits our ability to retain existing business or write new business at adequate rates or on appropriate terms, our business and results of operations could be materially and adversely affected. Increased competition could also result in fewer submissions, lower premium rates, and less favorable policy terms and conditions, which could reduce our profit margins and adversely impact our net income and shareholders' equity.

Recent technological advancements in the insurance industry and information technology industry present new and fast-evolving competitive risks as participants seek to increase transaction speeds, lower costs and create new opportunities. Advancements in technology are occurring in underwriting, claims, distribution and operations at a pace that may quicken, including as companies increase use of data analytics and technology as part of their business strategy. We will be at a competitive disadvantage if, over time, our competitors are more effective than us in their utilization of technology and evolving data analytics. If we do not anticipate or keep pace with these technological and other changes impacting the insurance industry, it could also limit our ability to compete in desired markets.

Insurance and reinsurance markets are historically cyclical, and we expect to experience periods with excess underwriting capacity and unfavorable premium rates.
The insurance and reinsurance markets have historically been cyclical, characterized by periods of intense price competition due to excessive underwriting capacity as well as periods when shortages of capacity permitted favorable premium levels. An increase in premium levels is often offset by an increasing supply of insurance and reinsurance capacity, either by capital provided by new entrants or by the commitment of additional capital by existing insurers or reinsurers, which may cause prices to decrease. Any of these factors could lead to a significant reduction in premium rates, less favorable policy terms, and fewer submissions for our underwriting services. In addition to these considerations, changes in the frequency and severity of losses suffered by insureds and insurers may affect the cycles of the insurance and reinsurance markets significantly, as could periods of economic weakness (such as recession).

The integration of acquired companies may not be as successful as we anticipate.
Acquisitions involve numerous operational, strategic, financial, accounting, legal, tax, and other risks; potential liabilities associated with the acquired businesses; and uncertainties related to design, operation and integration of acquired businesses' internal controls over financial reporting. Difficulties in integrating an acquired company, along with its personnel, may result in the acquired company performing differently than we expected, in operational challenges or in our failure to realize anticipated expense-related efficiencies. This may also apply to companies in which we acquire majority ownership. Our existing businesses could also be negatively impacted by acquisitions. In addition, goodwill and intangible assets recorded in connection with insurance company acquisitions may be impaired if premium growth, underwriting profitability, agency retention and policy persistency, among other factors, differ from expectations.

There is also the potential that proposed acquisitions that have been publicly announced will not be consummated, even if a definitive agreement has been signed by the parties. If an agreement is terminated before closing, the result would be that our proposed acquisition would not occur, which could, among other things, expose us to damages or liability and adversely impact our stock price and future operations.

We may be subject to U.S. tax and Bermuda tax which may have an adverse effect on our results of operations and shareholder investment.
Chubb Limited and our non-U.S. subsidiaries operate in a manner so that none of these companies should be subject to U.S. tax (other than U.S. excise tax on insurance and reinsurance premium income attributable to insuring or reinsuring U.S. risks and U.S. withholding tax on some types of U.S. source investment income), because none of these companies should be treated as engaged in a trade or business within the U.S. However, because there is considerable uncertainty as to the activities that constitute being engaged in a trade or business within the U.S., we cannot be certain that the Internal Revenue Service (IRS) will not contend successfully that Chubb Limited or its non-U.S. subsidiaries are engaged in a trade or business in the U.S. If Chubb Limited or any of its non-U.S. subsidiaries were considered to be engaged in a trade or business in the U.S., such entity could be subject to U.S. corporate income and branch profits taxes on the portion of its earnings effectively connected to such U.S. business, in which case our results of operations and our shareholders' investments could be adversely affected.

The Bermuda Minister of Finance, under the Exempted Undertakings Tax Protection Act 1966 of Bermuda, as amended, has given Chubb Limited and its Bermuda insurance subsidiaries a written assurance that if any legislation is enacted in Bermuda that would impose tax computed on profits or income, or computed on any capital asset, gain, or appreciation, or any tax in the nature of estate duty or inheritance tax, then the imposition of any such tax would not be applicable to those companies or any of their respective operations, shares, debentures, or other obligations until March 31, 2035, except insofar as such tax would apply to persons ordinarily resident in Bermuda or is payable by us in respect of real property owned or leased by us in Bermuda. We cannot be certain that we will not be subject to any Bermuda tax after March 31, 2035.

We could be adversely affected by certain features of the 2017 U.S. tax reform legislation.
Tax legislation known as the Tax Cuts and Jobs Act (2017 Tax Act) was enacted in the U.S. on December 22, 2017. In addition to reducing the U.S. corporate income tax rate from 35 percent to 21 percent, it fundamentally changed many elements of the pre-2017 Tax Act U.S. tax law and introduced several new concepts to tax multinational corporations such as us. Among the most notable new rules are the Base Erosion and Anti-Abuse Tax (commonly called BEAT), which may apply as a result of payments by U.S. taxpayers to non-U.S. affiliates, and the Global Intangible Low Taxed Income (GILTI) addition to Subpart F income, which for insurance groups potentially expands U.S. taxation on the earnings of foreign subsidiaries. The 2017 Tax Act also included a one-time reduced-rate transition tax in 2017 on previously untaxed post-1986 earnings of foreign subsidiaries of U.S. corporations. The 2017 Tax Act, which was generally effective in 2018, is a complex law with many significant new provisions. Since enactment, the IRS and U.S. Treasury Department have continued to issue rulings, notices, and proposed and final regulations to assist taxpayers in understanding and implementing the new provisions. Some of this guidance remains subject to comment or in proposed form; thus, there are many uncertainties relating to its ultimate application and effects on our company.

The Biden Administration and several members of the U.S. Congress have suggested enacting legislation intended to modify aspects of the 2017 Tax Act. This legislation may include increases to the corporate income tax rate, as well as modifications to the GILTI provisions. It is possible that such legislation or other legislation could be enacted in the future and could have an adverse impact on us or our shareholders.

The Organization for Economic Cooperation and Development (OECD) and the European Union (EU) are considering measures that might change long standing tax principles that could increase our taxes.
The OECD has published a framework for taxation that in many respects is different than long standing international tax principles. This framework is a proposal that we expect to develop further in 2021 as it is designed by the OECD Secretariat. This framework is an alternative to digital services taxes that several countries have enacted or are considering. These changes could redefine what income is taxed in which country and institute a global minimum tax. These proposals may be completed sometime in 2021 or later which could be adopted by OECD countries in 2022 or later years. As countries unilaterally amend their tax laws to adopt certain parts of the OECD framework, this may increase the company's income taxes and cause uncertainties related to our income taxes.

The OECD also published an action plan several years ago to address base erosion and profit shifting (BEPS) impacting its member countries and other jurisdictions. It is possible that jurisdictions in which we do business could continue to react to the BEPS initiative or their own concerns by enacting tax legislation that could adversely affect us or our shareholders.

Several multilateral organizations, including the EU and the OECD have, in recent years, expressed concern about some countries not participating in adequate tax information exchange arrangements and have threatened those that do not agree to cooperate with punitive sanctions by member countries. It is still unclear what all these sanctions might be, which countries might adopt them, and when or if they might be imposed. We cannot assure, however, that the Tax Information Exchange Agreements (TIEAs) that have been entered into by Switzerland and Bermuda will be sufficient to preclude all of the sanctions described above, which, if ultimately adopted, could adversely affect us or our shareholders.

Shareholders

There are provisions in our charter documents that may reduce the voting rights and diminish the value of our Common Shares.
Our Articles of Association generally provide that shareholders have one vote for each Common Share held by them and are entitled to vote at all meetings of shareholders. However, the voting rights exercisable by a shareholder may be limited so that certain persons or groups are not deemed to hold 10 percent or more of the voting power conferred by our Common Shares. Moreover, these provisions could have the effect of reducing the voting power of some shareholders who would not otherwise be subject to the limitation by virtue of their direct share ownership. The Board of Directors may refuse to register holders of shares as shareholders with voting rights based on certain grounds, including if the holder would, directly or indirectly, formally, constructively or beneficially own (as described in Articles 8 and 14 of our Articles of Association) or otherwise control voting rights with respect to 10 percent or more of the registered share capital recorded in the commercial register. In addition, the Board of Directors shall reject entry of holders of registered shares as shareholders with voting rights in the share register or shall decide on their deregistration when the acquirer or shareholder upon request does not expressly state that she/he has acquired or holds the shares in her/his own name and for her/his account.

Applicable laws may make it difficult to effect a change of control of our company.
Before a person can acquire control of a U.S. insurance company, prior written approval must be obtained from the insurance commissioner of the state where the domestic insurer is domiciled. Prior to granting approval of an application to acquire control of a domestic insurer, the state insurance commissioner will consider such factors as the financial strength of the applicant, the integrity and management of the applicant's Board of Directors and executive officers, the acquirer's plans for the future operations of the domestic insurer, and any anti-competitive results that may arise from the consummation of the acquisition of control. Generally, state statutes provide that control over a domestic insurer is presumed to exist if any person, directly or indirectly, owns, controls, holds with the power to vote, or holds proxies representing 10 percent or more of the voting securities of the domestic insurer. Because a person acquiring 10 percent or more of our Common Shares would indirectly control the same percentage of the stock of our U.S. insurance subsidiaries, the insurance change of control laws of various U.S. jurisdictions would likely apply to such a transaction. Laws of other jurisdictions in which one or more of our existing subsidiaries are, or a future subsidiary may be, organized or domiciled may contain similar restrictions on the acquisition of control of Chubb.

While our Articles of Association limit the voting power of any shareholder to less than 10 percent, we cannot assure that the applicable regulatory body would agree that a shareholder who owned 10 percent or more of our Common Shares did not, because of the limitation on the voting power of such shares, control the applicable insurance subsidiary.

These laws may discourage potential acquisition proposals and may delay, deter, or prevent a change of control of Chubb, *including transactions that some or all of our shareholders might consider to be desirable.*

Shareholder voting requirements under Swiss law may limit our flexibility with respect to certain aspects of capital management.
Swiss law allows our shareholders to authorize share capital which can be issued by the Board of Directors without shareholder approval, but this authorization must be renewed by the shareholders every two years. Swiss law also does not provide as much flexibility in the various terms that can attach to different classes of stock as permitted in other jurisdictions. Swiss law also reserves for approval by shareholders many corporate actions over which the Board of Directors had authority prior to our re-domestication to Switzerland. For example, dividends must be approved by shareholders. While we do not believe that Swiss law requirements relating to our capital management will have an adverse effect on Chubb, we cannot assure that situations will not arise where such flexibility would have provided substantial benefits to our shareholders.

Chubb Limited is a Swiss company; it may be difficult to enforce judgments against it or its directors and executive officers.
Chubb Limited is incorporated pursuant to the laws of Switzerland. In addition, certain of our directors and officers reside outside the U.S. and all or a substantial portion of our assets and the assets of such persons are located in jurisdictions outside the U.S. As such, it may be difficult or impossible to effect service of process within the U.S. upon those persons or to recover against us or them on judgments of U.S. courts, including judgments predicated upon civil liability provisions of the U.S. federal securities laws.

Chubb has been advised by its Swiss counsel that there is doubt as to whether the courts in Switzerland would enforce:
- judgments of U.S. courts based upon the civil liability provisions of the U.S. federal securities laws obtained in actions against it or its directors and officers, who reside outside the U.S.; or
- original actions brought in Switzerland against these persons or Chubb predicated solely upon U.S. federal securities laws.

Chubb has also been advised by its Swiss counsel that there is no treaty in effect between the U.S. and Switzerland providing for this enforcement and there are grounds upon which Swiss courts may not enforce judgments of U.S. courts. Some remedies available under the laws of U.S. jurisdictions, including some remedies available under the U.S. federal securities laws, would not be allowed in Swiss courts as contrary to that nation's public policy.

Shareholders may be subject to Swiss withholding taxes on the payment of dividends.
Our dividends are generally subject to a Swiss withholding tax at a rate of 35 percent; however, payment of a dividend in the form of a par value reduction or qualifying capital contribution reserve reduction is not subject to Swiss withholding tax. We have previously obtained shareholder approval for dividends to be paid in such form. It is our practice to recommend to shareholders that they annually approve the payment of dividends in such form but we cannot assure that our shareholders will continue to approve a reduction in such form each year or that we will be able to meet the other legal requirements for a reduction in par value, or that Swiss withholding tax rules will not be changed in the future. We estimate we would be able to pay dividends in such form, and thus exempt from Swiss withholding tax until 2028–2033. This range may vary depending upon changes in annual dividends, special dividends, certain share repurchases, fluctuations in U.S. dollar/Swiss franc exchange rate, changes in par value or qualifying capital contribution reserves or changes or new interpretations to Swiss corporate or tax law or regulations.

Under certain circumstances, U.S. shareholders may be subject to adverse U.S. federal income tax consequences.
Under certain circumstances, a U.S. person who owns or is deemed to own 10 percent or more of the voting power or value of a foreign corporation that is a "controlled foreign corporation" (CFC) (a foreign corporation in which 10 percent U.S. shareholders own or are deemed to own more than 50 percent of the voting power or value of the stock of a foreign corporation or more than 25 percent of certain foreign insurance corporations) for any period during a taxable year must include in gross income for U.S. federal income tax purposes a pro rata share of the CFC's "subpart F income". We believe that because of the dispersion of our share ownership it is unlikely that any U.S. person who acquires shares of Chubb Limited directly or indirectly through one or more foreign entities should be required to include any subpart F income in income under the CFC rules of U.S. tax law.

Separately, any U.S. persons who hold shares may be subject to U.S. federal income taxation at ordinary income tax rates on their proportionate share of our Related Person Insurance Income (RPII). If the RPII of any of our non-U.S. insurance subsidiaries (each a "Non-U.S. Insurance Subsidiary") were to equal or exceed 20 percent of that company's gross insurance income in any taxable year and direct or indirect insureds (and persons related to those insureds) own directly or indirectly through foreign entities 20 percent or more of the voting power or value of Chubb Limited, then a U.S. person who owns any shares of Chubb Limited (directly or indirectly through foreign entities) on the last day of the taxable year would be required to include in his or her income for U.S. federal income tax purposes such person's pro rata share of such company's RPII for the taxable year. In addition, any RPII that is includible in the income of a U.S. tax-exempt organization may be treated as unrelated

business taxable income. We believe that the gross RPII of each Non-U.S. Insurance Subsidiary did not in prior years of operation and is not expected in the foreseeable future to equal or exceed 20 percent of each such company's gross insurance income. Likewise, we do not expect the direct or indirect insureds of each Non-U.S. Insurance Subsidiary (and persons related to such insureds) to directly or indirectly own 20 percent or more of either the voting power or value of our shares. However, we cannot be certain that this will be the case because some of the factors which determine the extent of RPII may be beyond our control. If these thresholds are met or exceeded, any U.S. person's investment in Chubb Limited could be adversely affected.

A U.S. tax-exempt organization may recognize unrelated business taxable income if a portion of our insurance income is allocated to the organization. This generally would be the case if either (i) Chubb Limited is considered a CFC and the tax-exempt shareholder is a 10 percent U.S. shareholder or (ii) there is RPII, certain exceptions do not apply, and the tax-exempt organization, directly (or indirectly through foreign entities) owns any shares of Chubb Limited. Although we do not believe that any U.S. tax-exempt organization should be allocated such insurance income, we cannot be certain that this will be the case. Potential U.S. tax-exempt investors are advised to consult their tax advisors.

U.S. persons who hold shares will be subject to adverse tax consequences if we are considered to be a Passive Foreign Investment Company (PFIC) for U.S. federal income tax purposes.
If Chubb Limited is considered a PFIC for U.S. federal income tax purposes, a U.S. person who holds Chubb Limited shares will be subject to adverse U.S. federal income tax consequences in which case their investment could be adversely affected. In addition, if Chubb Limited were considered a PFIC, upon the death of any U.S. individual owning shares, such individual's heirs or estate would not be entitled to a "step-up" in the basis of the shares which might otherwise be available under U.S. federal income tax laws. We believe that we are not, have not been, and currently do not expect to become, a PFIC for U.S. federal income tax purposes. We cannot assure, however, that we will not be deemed a PFIC by the IRS. Recently enacted U.S. federal tax law and recent final and proposed regulations issued by the IRS and U.S. Treasury Department contain new rules that may affect the application of the PFIC provisions to an insurance company. The final regulations are effective for tax years beginning after January 15, 2021 and would not apply to us until 2022. Any shareholder electing to apply certain provisions of the newly finalized or proposed PFIC regulations prior to the effective date could be adversely affected by an investment in us. Shareholders are advised to consult their tax advisors.

ITEM 1B. Unresolved Staff Comments
There are currently no unresolved SEC staff comments regarding our periodic or current reports.

ITEM 2. Properties
We maintain office facilities around the world including in North America, Europe (including our principal executive offices in Switzerland), Bermuda, Latin America, Asia Pacific, and the Far East. Most of our office facilities are leased, although we own major facilities in Hamilton, Bermuda, and in the U.S., including in Philadelphia, Pennsylvania; Wilmington, Delaware; Whitehouse Station, New Jersey; and Simsbury, Connecticut. Management considers its office facilities suitable and adequate for the current level of operations.

ITEM 3. Legal Proceedings
The information required with respect to Item 3 is included in Note 10 h) to the Consolidated Financial Statements, which is hereby incorporated herein by reference.

ITEM 4. Mine Safety Disclosures
Item not applicable.

ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our Common Shares have been listed on the New York Stock Exchange since March 25, 1993, with a current par value of CHF 24.15 per share. The trading symbol for our Common Shares is "CB".

We have paid dividends each quarter since we became a public company in 1993. In 2020 and 2019, our annual dividends were paid by way of a distribution from capital contribution reserves (Additional paid-in capital) through the transfer of dividends from Additional paid-in capital to Retained earnings (free reserves) as approved by our shareholders.

Chubb Limited is a holding company whose principal sources of income are dividends and investment income from its operating subsidiaries. The ability of the operating subsidiaries to pay dividends to us and our ability to pay dividends to our shareholders are each subject to legal and regulatory restrictions. The recommendation and payment of future dividends will be based on the determination of the Board of Directors (Board) and will be dependent upon shareholder approval, profits and financial requirements of Chubb and other factors, including legal restrictions on the payment of dividends and other such factors as the Board deems relevant. Refer to Part I, Item 1A and Part II, Item 7 for additional information.

The number of record holders of Common Shares as of February 11, 2021 was 6,598. This is not the actual number of beneficial owners of Chubb's Common Shares since most of our shareholders hold their shares through a stockbroker, bank or other nominee rather than directly in their own names.

Refer to Part III, Item 12 for information relating to compensation plans under which equity securities are authorized for issuance.

Issuer's Repurchases of Equity Securities for the Three Months Ended December 31, 2020

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 Publicly Announced Plans [3]
October 1 through October 31	144,550	$ 131.11	140,000	$ 1.11 billion
November 1 through November 30	886,702	$ 143.52	883,000	$ 2.48 billion
December 1 through December 31	296,858	$ 152.73	295,000	$ 1.50 billion
Total	1,328,110	$ 144.23	1,318,000	

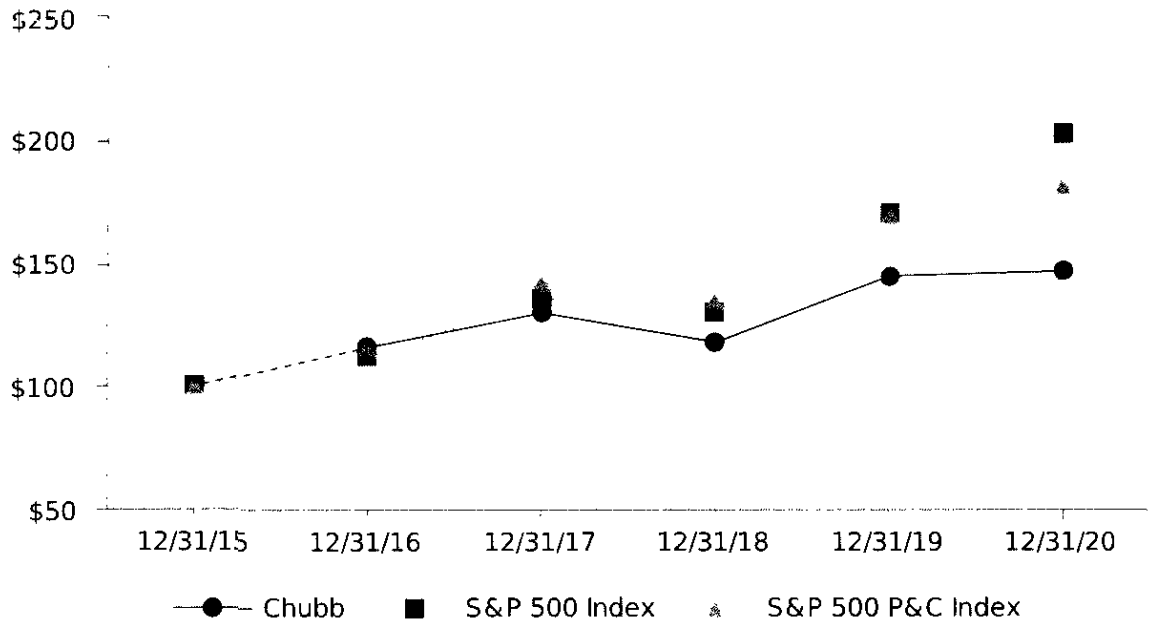
1 This column represents open market share repurchases and the surrender to Chubb of Common Shares to satisfy tax withholding obligations in connection with the vesting of restricted stock issued to employees and to cover the cost of the exercise of options by employees through stock swaps.

2 The aggregate value of shares purchased in the three months ended December 31, 2020 as part of the publicly announced plan was $190 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. Subsequently, 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 $1.5 billion November 2019 Board authorization remained effective through December 31, 2020. Repurchases through December 31, 2020 were made under this authorization. For the period January 1, 2021 through February 24, 2021, we repurchased 1,971,000 Common Shares for a total of $327 million in a series of open market transactions under the share repurchase program authorized in November 2020. As of February 24, 2021, $2.17 billion in share repurchase authorization remained through December 31, 2021. Refer to Note 11 to the Consolidated Financial Statements for more information on the Chubb Limited securities repurchase authorizations.

Performance Graph

Set forth below is a line graph comparing the dollar change in the cumulative total shareholder return on Chubb's Common Shares from December 31, 2015, through December 31, 2020, as compared to the cumulative total return of the Standard & Poor's 500 Stock Index and the cumulative total return of the Standard & Poor's Property-Casualty Insurance Index. The cumulative total shareholder return is a concept used to compare the performance of a company's stock over time and is the ratio of the stock price change plus the cumulative amount of dividends over the specified time period (assuming dividend reinvestment), to the stock price at the beginning of the time period. The chart depicts the value on December 31, 2016, 2017, 2018, 2019, and 2020, of a $100 investment made on December 31, 2015, with all dividends reinvested.



	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Chubb Limited	$100	$116	$130	$118	$145	$147
S&P 500 Index	$100	$112	$136	$130	$171	$203
S&P 500 P&C Index	$100	$116	$142	$135	$170	$182

ITEM 6. Selected Financial Data

Not required.

ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following is a discussion of our financial condition and results of operations for the years ended December 31, 2020 and 2019 and comparisons between 2020 and 2019. This discussion should be read in conjunction with the Consolidated Financial Statements and related Notes, under Item 8 of this Form 10-K. Comparisons between 2019 and 2018 have been omitted from this Form 10-K, but can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of our Form 10-K for the year ended December 31, 2019.

All comparisons in this discussion are to the corresponding prior year 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.

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Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for forward-looking statements. Any written or oral statements made by us or on our behalf may include forward-looking statements that reflect our current views with respect to future events and financial performance. 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 under Part I, Item 1A, under Risk Factors, and 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 December 31, 2020 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 than not that we will be required to sell, or have the intent to sell, available for sale fixed maturity investments before their anticipated recovery;
- 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

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.

We have grown our business through increased premium volume, expansion of product offerings and geographic reach, and acquisitions of other companies. Refer to Note 2 to the Consolidated Financial Statements for our most recent acquisitions.

Our product and geographic diversification differentiate us from the vast majority of our competitors and has been a source of stability during periods of industry volatility. Our long-term business strategy focuses on sustained growth in book value achieved through a combination of underwriting and investment income. By doing so, we provide value to our clients and shareholders through use of our substantial capital base in the insurance and reinsurance markets.

We are organized along a profit center structure by line of business and territory that does not necessarily correspond to corporate legal entities. Profit centers can access various legal entities subject to licensing and other regulatory rules. Profit centers are expected to generate underwriting income and appropriate risk-adjusted returns. Our corporate structure has facilitated the development of management talent by giving each profit center's senior management team the necessary autonomy within underwriting authorities to make operating decisions and create products and coverages needed by its target customer base. We are focused on delivering underwriting profit by only writing policies which we believe adequately compensate us for the risk we accept.

Our insurance and reinsurance operations generate gross revenues from two principal sources: premiums and investment income. Cash flow is generated from premiums collected and investment income received less paid losses and loss expenses, policy acquisition costs, and administrative expenses. Invested assets are substantially held in liquid, investment grade fixed income securities of relatively short duration. Claims payments in any short-term period are highly unpredictable due to the random nature of loss events and the timing of claims awards or settlements. The value of investments held to pay future claims is subject to market forces such as the level of interest rates, stock market volatility, and credit events such as corporate defaults. The actual cost of claims is also volatile based on loss trends, inflation rates, court awards, and catastrophes. We believe that our cash balance, our highly liquid investments, credit facilities, and reinsurance protection provide sufficient liquidity to meet unforeseen claim demands that might occur in the year ahead. Refer to "Liquidity" and "Capital Resources" for additional information.

Financial Highlights for the Year Ended December 31, 2020

- Net income was $3.5 billion compared with $4.5 billion in 2019, including after-tax catastrophe losses of $2.8 billion compared with $966 million in 2019.
- The COVID-19 global pandemic and related economic conditions adversely impacted our results of operations and growth in 2020, including:
  - Net catastrophe losses included a COVID-19 charge of $1,396 million pre-tax ($1,193 million after-tax), generated primarily from entertainment and commercial property-related business interruption, liability insurance products, and workers' compensation. These COVID-19 losses added 4.5 percentage points to the P&C combined ratio.
  - Net premiums written in consumer lines globally declined by 1.9 percent, or 0.9 percent on a constant-dollar basis, principally reflecting the impact of COVID-19. A&H lines experienced negative growth globally and were down 10.6 percent for the year. Partially offsetting the decline was our U.S. high net worth personal lines business, which grew 2.8 percent in 2020.
- Net premiums written were $33.8 billion, up 4.8 percent, or 5.5 percent on a constant-dollar basis with 9.3 percent growth in commercial lines and a decline of 0.9 percent in consumer lines. Refer to page 49 for more detail.
- Net premiums earned were $33.1 billion, up 5.8 percent, or 6.5 percent on a constant-dollar basis with growth in commercial lines of 8.9 percent and consumer lines of 2.5 percent.
- P&C combined ratio was 96.1 percent compared with 90.6 percent in 2019. P&C current accident year combined ratio excluding catastrophe losses was 86.7 percent compared with 89.2 percent in 2019.
- Total pre-tax and after-tax catastrophe losses, including reinstatement premiums, were $3.3 billion and $2.8 billion, respectively, compared with $1.2 billion and $966 million, respectively, in 2019. Refer to the Consolidated Operating Results section for additional information on our catastrophe losses.
- Total pre-tax and after-tax favorable prior period development were $395 million (1.2 percentage points of the combined ratio) and $357 million, respectively, compared with $792 million (2.7 percentage points of the combined ratio) and $624 million, respectively, in 2019.
- Operating cash flow was $9.8 billion compared with $6.3 billion in 2019, an increase of $3.4 billion primarily due to higher premiums collected and reduced payment activity due to the economic slowdown related to COVID-19 pandemic. Refer to the Liquidity section for additional information on our cash flows.
- Net investment income was $3,375 million compared with $3,426 million in 2019.
- Share repurchases totaled $516 million, or approximately 3.6 million shares for the year, at an average purchase price of $143.91 per share.
- Shareholders' equity increased 7.4 percent during the year, principally reflecting strong underlying growth and realized and unrealized gains in our investment portfolio.

Outlook

Our premium growth in 2020 reflected increases in commercial P&C lines globally from new business, positive rate increases and higher renewal retention. This growth was tempered by decreases in consumer lines, primarily from outside North America, reflecting the adverse impact of the economic contraction resulting from the COVID-19 pandemic.

Looking forward, we are off to a good start to the year in the first quarter with both growth and the level of commercial P&C rate increases resembling the underwriting conditions of the fourth quarter. We expect the current market condition to continue which will allow us to continue to grow revenue and expand underwriting margins in our commercial lines. For consumer lines, growth globally in the fourth quarter of 2020 continued to be impacted by the pandemic's effects on consumer-related activities. Our international personal lines business and our global A&H business together shrank eight percent. We expect growth to return in these businesses as the year progresses.

In 2019, Chubb entered into agreements to acquire an additional 22.4 percent ownership interest in Huatai Group through two separate purchases. The first purchase, which was for a 15.3 percent interest, was completed in July 2020. We expect that the second purchase, which was for a 7.1 percent interest, will be completed in the future, contingent upon important conditions. Separately, in November 2020, we completed the purchase of an incremental 0.9 percent ownership interest in Huatai Group, bringing Chubb's aggregate ownership interest to 47.1 percent as of December 31, 2020. We continue to apply equity method accounting until we complete the 7.1 percent purchase, which will result in majority ownership at which point we expect to apply consolidation accounting.

Critical Accounting Estimates

Our Consolidated Financial Statements include amounts that, either by their nature or due to requirements of generally accepted accounting principles in the U.S. (GAAP), are determined using best estimates and assumptions. While we believe that the amounts included in our Consolidated Financial Statements reflect our best judgment, actual amounts could ultimately materially differ from those currently presented. We believe the items that require the most subjective and complex estimates are:

- unpaid loss and loss expense reserves, including long-tail asbestos and environmental (A&E) reserves and non-A&E casualty exposures;
- future policy benefits reserves;
- the valuation of value of business acquired (VOBA) and amortization of deferred policy acquisition costs and VOBA;
- the assessment of risk transfer for certain structured insurance and reinsurance contracts;
- reinsurance recoverable, including a valuation allowance for uncollectible reinsurance;
- the valuation of our investment portfolio and assessment of valuation allowance for expected credit losses;
- the valuation of deferred income taxes;
- the valuation of derivative instruments related to guaranteed living benefits (GLB); and
- the assessment of goodwill for impairment.

We believe our accounting policies for these items are of critical importance to our Consolidated Financial Statements. The following discussion provides more information regarding the estimates and assumptions required to arrive at these amounts and should be read in conjunction with the sections entitled: Prior Period Development, Asbestos and Environmental (A&E), Reinsurance Recoverable on Ceded Reinsurance, Investments, and Net Realized and Unrealized Gains (Losses).

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. At December 31, 2020, our gross unpaid loss and loss expense reserves were $67.8 billion and our net unpaid loss and loss expense reserves were $53.2 billion. 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. In connection with such structured settlements and certain reserves for unsettled claims, we carried net discounted reserves of $68 million and $74 million at December 31, 2020 and 2019, respectively.

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

	December 31, 2020			December 31, 2019		
(in millions of U.S. dollars)	Gross Losses	Reinsurance Recoverable[1]	Net Losses	Gross Losses	Reinsurance Recoverable[1]	Net Losses
Balance, beginning of year	$ 62,690	$ 14,181	$ 48,509	$ 62,960	$ 14,689	$ 48,271
Losses and loss expenses incurred	26,711	5,001	21,710	23,657	4,927	18,730
Losses and loss expenses paid	(22,053)	(4,619)	(17,434)	(23,911)	(5,438)	(18,473)
Other (including foreign exchange translation)	463	84	379	(16)	3	(19)
Balance, end of year	$ 67,811	$ 14,647	$ 53,164	$ 62,690	$ 14,181	$ 48,509

[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). Our loss reserves comprise approximately 78 percent casualty-related business, which typically encompasses long-tail risks, and other risks where a high degree of judgment is required.

The process of establishing loss reserves for property and casualty claims can be complex and is subject to considerable uncertainty as it requires the use of informed estimates and judgments based on circumstances underlying the insured losses known at the date of accrual. For example, the reserves established for high excess casualty claims, asbestos and environmental claims, claims from major catastrophic events, or for our various product lines each require different assumptions and judgments to be made. Necessary judgments are based on numerous factors and may be revised as additional experience and other data become available and are reviewed, as new or improved methods are developed, or as laws change. Hence, ultimate loss payments may differ from the estimate of the ultimate liabilities made at the balance sheet date. Changes to our previous estimates of prior period loss reserves impact the reported calendar year underwriting results adversely if our estimates increase or favorably if our estimates decrease. The potential for variation in loss reserve estimates is impacted by numerous factors. Reserve estimates for casualty lines are particularly uncertain given the lengthy reporting patterns and corresponding need for IBNR.

Case reserves for those claims reported by insureds or ceding companies to us prior to the balance sheet date and where we have sufficient information are determined by our claims personnel as appropriate based on the circumstances of the claim(s), standard claim handling practices, and professional judgment. Furthermore, for our Brandywine run-off operations and our assumed reinsurance operation, Global Reinsurance, we may adjust the case reserves as notified by the ceding company if the judgment of our respective claims department differs from that of the cedant.

With respect to IBNR reserves and those claims that have been incurred but not reported prior to the balance sheet date, there is, by definition, limited actual information to form the case reserve estimate and reliance is placed upon historical loss experience and actuarial methods to estimate the ultimate loss obligations and the corresponding amount of IBNR. IBNR reserve estimates are generally calculated by first projecting the ultimate amount of losses for a product line and subtracting paid losses and case reserves for reported claims. The judgments involved in projecting the ultimate losses may pertain to the use and interpretation of various standard actuarial reserving methods that place reliance on the extrapolation of actual historical data, loss development patterns, industry data, and other benchmarks as appropriate. The estimate of the required IBNR reserve also requires judgment by actuaries and management to reflect the impact of more contemporary and subjective factors, both qualitative and quantitative. Among some of these factors that might be considered are changes in business mix or volume, changes in ceded reinsurance structures, changes in claims handling practices, reported and projected loss trends, inflation, the legal environment, and the terms and conditions of the contracts sold to our insured parties.

Determining management's best estimate
Our recorded reserves represent management's best estimate of the provision for unpaid claims as of the balance sheet date, and establishing them involves a process that includes collaboration with various relevant parties in the company. For information on our reserving process, refer to Note 7 to the Consolidated Financial Statements.

Sensitivity to underlying assumptions
While we believe that our reserve for unpaid losses and loss expenses at December 31, 2020, is adequate, new information or emerging trends that differ from our assumptions may lead to future development of losses and loss expenses that is significantly greater or less than the recorded reserve, which could have a material effect on future operating results. As noted previously, our best estimate of required loss reserves for most portfolios is judgmentally selected for each origin year after considering the results from a number of reserving methods and is not a purely mechanical process. Therefore, it is difficult to convey, in a simple and quantitative manner, the impact that a change to a single assumption will have on our best estimate. In the examples below, we attempt to give an indication of the potential impact by isolating a single change for a specific reserving method that would be pertinent in establishing the best estimate for the product line described. We consider each of the following sensitivity analyses to represent a reasonably likely deviation in the underlying assumption.

North America Commercial P&C Insurance - Workers' Compensation
Given the long reporting and paid development patterns for workers' compensation business, the development factors used to project actual current losses to ultimate losses for our current exposure require considerable judgment that could be material to consolidated loss and loss expense reserves. Specifically, adjusting ground up ultimate losses by a one percentage point change in the tail factor (i.e., 1.04 changed to either 1.05 or 1.03) would cause a change of approximately $910 million, either positive or negative, for the projected net loss and loss expense reserves. This represents an impact of about 9.5 percent relative to recorded net loss and loss expense reserves of approximately $9.6 billion.

North America Commercial P&C Insurance – Liability
As is the case for Workers' Compensation above, given the long reporting and paid development patterns, the development factors used to project actual current losses to ultimate losses for our current exposure require considerable judgment that could be material to consolidated loss and loss expense reserves. Specifically, for our main U.S. Excess/Umbrella portfolios, a five percentage point change in the tail factor (e.g., 1.10 changed to either 1.15 or 1.05) would cause a change of approximately $546 million, either positive or negative, for the projected net loss and loss expense reserves. This represents an impact of about 19.7 percent relative to recorded net loss and loss expense reserves of approximately $2.8 billion for these portfolios.

The reserve portfolio for our Chubb Bermuda operations contains exposure to predominantly high excess liability coverage on an occurrence-first-reported basis (typically with attachment points in excess of $325 million and gross limits of up to $150 million) and D&O and other professional liability coverage on a claims-made basis (typically with attachment points in excess of $125 million and gross limits of up to $75 million). Due to the layer of exposure covered, the expected frequency for this book is very low. As a result of the low frequency/high severity nature of the book, a small difference in the actual vs. expected claim frequency, either positive or negative, could result in a material change to the projected ultimate loss if such change in claim frequency was related to a policy where close to maximum limits were deployed.

North America Personal P&C Insurance
Due to the relatively short-tailed nature of many of the coverages involved (e.g., homeowners property damage), most of the incurred losses in Personal Lines are resolved within a few years of occurrence. As shown in our loss triangle disclosure, the vast majority (approximately 95 percent) of Personal Lines net ultimate losses and allocated loss adjustment expenses are typically paid within five years of the accident date and over 80 percent within two years. Even though there are significant reserves associated with some liability exposures such as personal excess/umbrella liability, our incurred loss triangle also shows a roughly consistent pattern of only relatively minor movements in incurred estimates over time by accident year especially after twenty-four months of maturity. While the liability exposures are subject to additional uncertainties from more protracted resolution times, the main drivers of volatility in the Personal Lines business are relatively short-term in nature and relate to things like natural catastrophes, non-catastrophe weather events, man-made risks, and individual large loss volatility from other fortuitous claim events.

North America Agricultural Insurance
Approximately 59 percent of the reserves for this segment are from the crop related lines, which all have short payout patterns, with the majority of the liabilities expected to be resolved in the ensuing twelve months. Claim reserves for our Multiple Peril Crop Insurance (MPCI) product are set on a case-by-case basis and our aggregate exposure is subject to state level risk sharing formulae as well as third-party reinsurance. The majority of the development risk arises out of the accuracy of case reserve estimates and the time needed for final crop conditions to be assessed. We do not view our Agriculture reserves as substantially influenced by the general assumptions and risks underlying more typical P&C reserve estimates.

Overseas General Insurance
Certain long-tail lines, such as casualty and professional lines, are particularly susceptible to changes in loss trend and claim inflation. Heightened perceptions of tort and settlement awards around the world can increase the demand for these products as well as contributing to the uncertainty in the reserving estimates. Our reserving methods rely on loss development patterns estimated from historical data and while we attempt to adjust such factors for known changes in the current tort environment, it is possible that such factors may not entirely reflect all recent trends in tort environments. For example, when applying the reported loss development method, the lengthening of our selected loss development patterns by six months would increase reserve estimates on long-tail casualty and professional lines for accident years 2018 and prior by approximately $590 million. This represents an impact of 15.4 percent relative to recorded net loss and loss expense reserves of approximately $3.8 billion.

Global Reinsurance
At December 31, 2020, net unpaid losses and loss expenses for the Global Reinsurance segment aggregated to $1.5 billion, consisting of $772 million of case reserves and $740 million of IBNR. In comparison, at December 31, 2019, net unpaid losses and loss expenses for the Global Reinsurance segment aggregated to $1.4 billion, consisting of $769 million of case reserves and $664 million of IBNR.

For our catastrophe business, we principally estimate unpaid losses and loss expenses on an event basis by considering various sources of information, including specific loss estimates reported by our cedants, ceding company and overall industry loss estimates reported by our brokers, and our internal data regarding reinsured exposures related to the geographical location of the

event. Our internal data analysis enables us to establish catastrophe reserves for known events with more certainty at an earlier date than would be the case if we solely relied on reports from third parties to determine carried reserves.

For our casualty reinsurance business, we generally rely on ceding companies to report claims and then use that data as a key input to estimate unpaid losses and loss expenses. Due to the reliance on claims information reported by ceding companies, as well as other factors, the estimation of unpaid losses and loss expenses for assumed reinsurance includes certain risks and uncertainties that are unique relative to our direct insurance business. These include, but are not necessarily limited to, the following:

- The reported claims information could be inaccurate;
- Typically, a lag exists between the reporting of a loss event to a ceding company and its reporting to us as a reinsurance claim. The use of a broker to transmit financial information from a ceding company to us increases the reporting lag. Because most of our reinsurance business is produced by brokers, ceding companies generally first submit claim and other financial information to brokers, who then report the proportionate share of such information to each reinsurer of a particular treaty. The reporting lag generally results in a longer period of time between the date a claim is incurred and the date a claim is reported compared with direct insurance operations. Therefore, the risk of delayed recognition of loss reserve development is higher for assumed reinsurance than for direct insurance lines; and
- The historical claims data for a particular reinsurance contract can be limited relative to our insurance business in that there may be less historical information available. Further, for certain coverages or products, such as excess of loss contracts, there may be relatively few expected claims in a particular year so the actual number of claims may be susceptible to significant variability. In such cases, the actuary often relies on industry data from several recognized sources.

We mitigate the above risks in several ways. In addition to routine analytical reviews of ceding company reports to ensure reported claims information appears reasonable, we perform regular underwriting and claims audits of certain ceding companies to ensure reported claims information is accurate, complete, and timely. As appropriate, audit findings are used to adjust claims in the reserving process. We also use our knowledge of the historical development of losses from individual ceding companies to adjust the level of adequacy we believe exists in the reported ceded losses.

On occasion, there will be differences between our carried loss reserves and unearned premium reserves and the amount of loss reserves and unearned premium reserves reported by the ceding companies. This is due to the fact that we receive consistent and timely information from ceding companies only with respect to case reserves. For IBNR, we use historical experience and other statistical information, depending on the type of business, to estimate the ultimate loss. We estimate our unearned premium reserve by applying estimated earning patterns to net premiums written for each treaty based upon that treaty's coverage basis (i.e., risks attaching or losses occurring). At December 31, 2020, the case reserves, net of retrocessions, reported to us by our ceding companies were $762 million, compared with the $772 million we recorded. Our policy is to post additional case reserves in addition to the amounts reported by our cedants when our evaluation of the ultimate value of a reported claim is different than the evaluation of that claim by our cedant.

Typically, there is inherent uncertainty around the length of paid and reported development patterns, especially for certain casualty lines such as excess workers' compensation or general liability, which may take decades to fully develop. This uncertainty is accentuated by the need to supplement client development patterns with industry development patterns due to the sometimes low statistical credibility of the data. The underlying source and selection of the final development patterns can thus have a significant impact on the selected ultimate net losses and loss expenses. For example, a 20 percent shortening or lengthening of the development patterns used for U.S. long-tail lines would cause the loss reserve estimate derived by the reported Bornhuetter-Ferguson method for these lines to change by approximately $245 million. This represents an impact of 37 percent relative to recorded net loss and loss expense reserves of approximately $655 million.

Corporate

Within Corporate, we also have exposure to certain liability reinsurance lines that have been in run-off since 1994. Unpaid losses and loss expenses relating to this run-off reinsurance business resides within the Brandywine Division reported within Corporate. Most of the remaining unpaid loss and loss expense reserves for the run-off reinsurance business relate to A&E claims.

The A&E liabilities principally relate to claims arising from bodily-injury claims related to asbestos products and remediation costs associated with hazardous waste sites. The estimation of our A&E liabilities is particularly sensitive to future changes in the legal, social, and economic environment. We have not assumed any such future changes in setting the value of our A&E liabilities, which include provisions for both reported and IBNR claims.

There are many complex variables that we consider when estimating the reserves for our inventory of asbestos accounts and these variables may directly impact the predicted outcome. We believe the most significant variables relating to our A&E liabilities include the current legal environment; specific settlements that may be used as precedents to settle future claims; assumptions regarding trends with respect to claim severity and the frequency of higher severity claims; assumptions regarding the ability to allocate liability among defendants (including bankruptcy trusts) and other insurers; the ability of a claimant to bring a claim in a state in which they have no residency or exposure; the ability of a policyholder to claim the right to unaggregated coverage; whether high-level excess policies have the potential to be accessed given the policyholder's claim trends and liability situation; payments to unimpaired claimants; and, the potential liability of peripheral defendants. Based on the policies, the facts, the law, and a careful analysis of the impact that these factors will likely have on any given account, we estimate the potential liability for indemnity, policyholder defense costs, and coverage litigation expense.

The results in asbestos cases announced by other carriers or defendants may well have little or no relevance to us because coverage exposures are highly dependent upon the specific facts of individual coverage and resolution status of disputes among carriers, policyholders, and claimants.

For additional information refer to the "Asbestos and Environmental (A&E)" section and to Note 7 to the Consolidated Financial Statements.

Future policy benefits reserves
We issue contracts in our Overseas General Insurance and Life Insurance segments that are classified as long-duration. These contracts generally include accident and supplemental health products, term and whole life products, endowment products, and annuities. In accordance with GAAP, we establish reserves for contracts determined to be long-duration based on approved actuarial methods that include assumptions related to expenses, mortality, morbidity, persistency and investment yields. For traditional long-duration contracts, these assumptions also include a provision for adverse deviation (PAD), and are "locked in" at the inception of the contract, meaning we use our original assumptions throughout the life of the policy and do not subsequently modify them unless we deem the reserves to be inadequate; while for non-traditional long-duration contracts, the assumptions do not include a PAD and are unlocked at each reporting date. The future policy benefits reserves balance is regularly evaluated for a premium deficiency. If experience is less favorable than assumptions, additional liabilities may be required, resulting in a charge to policyholder benefits and claims.

Valuation of value of business acquired (VOBA), and amortization of deferred policy acquisition costs and VOBA
As part of the acquisition of businesses that sell long-duration contracts, such as life products, we established an intangible asset related to VOBA, which represented the fair value of the future profits of the in-force contracts. The valuation of VOBA at the time of acquisition is derived from similar assumptions to those used to establish the associated future policy benefits reserves. The most significant input in this calculation is the discount rate used to arrive at the present value of the net cash flows. We amortize deferred policy acquisition costs associated with long-duration contracts and VOBA (collectively policy acquisition costs) over the estimated life of the contracts, generally in proportion to premium revenue recognized based upon the same assumptions used in estimating the liability for future policy benefits. For non-traditional long-duration contracts, we amortize policy acquisition costs over the expected life of the contracts in proportion to estimates of expected gross profits. The estimated life is established at the inception of the contracts or upon acquisition and is based on current persistency assumptions. Policy acquisition costs, which consist of commissions, premium taxes, and certain underwriting costs related directly to the successful acquisition of a new or renewal insurance contract, are reviewed to determine if they are recoverable from future income, including investment income. Unrecoverable costs are expensed in the period identified.

Risk transfer
In the ordinary course of business, we both purchase (or cede) and sell (or assume) reinsurance protection. We discontinued the purchase of all finite risk reinsurance contracts, as a matter of policy, in 2002. For both ceded and assumed reinsurance, risk transfer requirements must be met in order to use reinsurance accounting, principally resulting in the recognition of cash flows under the contract as premiums and losses. If risk transfer requirements are not met, a contract is to be accounted for as a deposit, typically resulting in the recognition of cash flows under the contract through a deposit asset or liability and not as revenue or expense. To meet risk transfer requirements, a reinsurance contract must include both insurance risk, consisting of underwriting and timing risk, and a reasonable possibility of a significant loss for the assuming entity. We also apply similar risk transfer requirements to determine whether certain commercial insurance contracts should be accounted for as insurance or a deposit. Contracts that include fixed premium (i.e., premium not subject to adjustment based on loss experience under the contract) for fixed coverage generally transfer risk and do not require judgment.

Reinsurance and insurance contracts that include both significant risk sharing provisions, such as adjustments to premiums or loss coverage based on loss experience, and relatively low policy limits, as evidenced by a high proportion of maximum premium assessments to loss limits, can require considerable judgment to determine whether or not risk transfer requirements are met. For such contracts, often referred to as finite or structured products, we require that risk transfer be specifically assessed for each contract by developing expected cash flow analyses at contract inception. To support risk transfer, the cash flow analyses must demonstrate that a significant loss is reasonably possible, such as a scenario in which the ratio of the net present value of losses divided by the net present value of premiums equals or exceeds 110 percent. For purposes of cash flow analyses, we generally use a risk-free rate of return consistent with the expected average duration of loss payments. In addition, to support insurance risk, we must prove the reinsurer's risk of loss varies with that of the reinsured and/or support various scenarios under which the assuming entity can recognize a significant loss.

To ensure risk transfer requirements are routinely assessed, qualitative and quantitative risk transfer analyses and memoranda supporting risk transfer are developed by underwriters for all structured products. We have established protocols for structured products that include criteria triggering an accounting review of the contract prior to quoting. If any criterion is triggered, a contract must be reviewed by a committee established by each of our segments with reporting oversight, including peer review, from our global Structured Transaction Review Committee.

With respect to ceded reinsurance, we entered into a few multi-year excess of loss retrospectively-rated contracts, principally in 2002. These contracts primarily provided severity protection for specific product divisions. Because traditional one-year reinsurance coverage had become relatively costly, these contracts were generally entered into in order to secure a more cost-effective reinsurance program. All of these contracts transferred risk and were accounted for as reinsurance. In addition, we maintain a few aggregate excess of loss reinsurance contracts that were principally entered into prior to 2003, such as the National Indemnity Company (NICO) contracts referred to in the section entitled, "Asbestos and Environmental (A&E)". We have not purchased any other retroactive ceded reinsurance contracts since 1999.

With respect to assumed reinsurance and insurance contracts, products giving rise to judgments regarding risk transfer were primarily sold by our financial solutions business. Although we have significantly curtailed writing financial solutions business, several contracts remain in-force and principally include multi-year retrospectively-rated contracts and loss portfolio transfers. Because transfer of insurance risk is generally a primary client motivation for purchasing these products, relatively few insurance and reinsurance contracts have historically been written for which we concluded that risk transfer criteria had not been met. For certain insurance contracts that have been reported as deposits, the insured desired to self-insure a risk but was required, legally or otherwise, to purchase insurance so that claimants would be protected by a licensed insurance company in the event of non-payment from the insured.

Reinsurance recoverable

Reinsurance recoverable includes balances due to us from reinsurance companies for paid and unpaid losses and loss expenses and is presented net of a valuation allowance for uncollectible reinsurance. The valuation allowance for uncollectible reinsurance is determined based upon a review of the financial condition of the reinsurers and other factors. Ceded reinsurance contracts do not relieve our primary obligation to our policyholders. Consequently, an exposure exists with respect to reinsurance recoverable to the extent that any reinsurer is unable or unwilling to meet its obligations or disputes the liabilities assumed under the reinsurance contracts. We determine the reinsurance recoverable on unpaid losses and loss expenses using actuarial estimates as well as a determination of our ability to cede unpaid losses and loss expenses under existing reinsurance contracts.

The recognition of a reinsurance recoverable asset requires two key judgments. The first judgment involves our estimation based on the amount of gross reserves and the percentage of that amount which may be ceded to reinsurers. Ceded IBNR, which is a major component of the reinsurance recoverable on unpaid losses and loss expenses, is generally developed as part of our loss reserving process and, consequently, its estimation is subject to similar risks and uncertainties as the estimation of gross IBNR (refer to "Critical Accounting Estimates – Unpaid losses and loss expenses"). The second judgment involves our estimate of the amount of the reinsurance recoverable balance that we may ultimately be unable to recover from reinsurers due to insolvency, contractual dispute, or for other reasons. Estimated uncollectible amounts are reflected in a valuation allowance that reduces the reinsurance recoverable asset and, in turn, shareholders' equity. Changes in the valuation allowance for uncollectible reinsurance are reflected in net income.

Although the obligation of individual reinsurers to pay their reinsurance obligations is based on specific contract provisions, the collectability of such amounts requires estimation by management. The majority of the recoverable balance will not be due for collection until sometime in the future, and the duration of our recoverables may be longer than the duration of our direct exposures. Over this period of time, economic conditions and operational performance of a particular reinsurer may impact their ability to meet these obligations and while they may continue to acknowledge their contractual obligation to do so, they may not have the financial resources or willingness to fully meet their obligation to us.

To estimate the valuation allowance for uncollectible reinsurance, the reinsurance recoverable must first be determined for each reinsurer. This determination is based on a process rather than an estimate, although an element of judgment must be applied. As part of the process, ceded IBNR is allocated to reinsurance contracts because ceded IBNR is not generally calculated on a contract by contract basis. The allocations are generally based on premiums ceded under reinsurance contracts, adjusted for actual loss experience and historical relationships between gross and ceded losses. If actual premium and loss experience vary materially from historical experience, the allocation of reinsurance recoverable by reinsurer will be reviewed and may change. While such change is unlikely to result in a large percentage change in the valuation allowance for uncollectible reinsurance, it could, nevertheless, have a material effect on our net income in the period recorded.

Generally, we use a default analysis to estimate uncollectible reinsurance. The primary components of the default analysis are reinsurance recoverable balances by reinsurer, net of collateral, and forward looking default factors used to estimate the probability that the reinsurer may be unable to meet its future obligations in full. In 2020, we adopted new guidance on the accounting for expected credit losses of reinsurance recoverable. For additional information, refer to Note 1 s) to the Consolidated Financial Statements under Item 8. The definition of collateral for this purpose requires some judgment and is generally limited to assets held in a Chubb-only beneficiary trust, letters of credit, and liabilities held by us with the same legal entity for which we believe there is a right of offset. We do not currently include multi-beneficiary trusts. However, we have several reinsurers that have established multi-beneficiary trusts for which certain of our companies are beneficiaries. The determination of the default factor is principally based on the financial strength rating of the reinsurer and a corresponding default factor applicable to the financial strength rating. Default factors require considerable judgment and are determined using the current financial strength rating, or rating equivalent, of each reinsurer as well as other key considerations and assumptions. Significant considerations and assumptions include, but are not necessarily limited to, the following:

- For reinsurers that maintain a financial strength rating from a major rating agency, and for which recoverable balances are considered representative of the larger population (i.e., default probabilities are consistent with similarly rated reinsurers and payment durations conform to averages), the judgment exercised by management to determine the valuation allowance for uncollectible reinsurance of each reinsurer is typically limited because the financial rating is based on a published source and the default factor we apply is based on a historical default factor of a major rating agency applicable to the particular rating class. Default factors applied for financial ratings of AAA, AA, A, BBB, BB, B, and CCC, are 0.8 percent, 1.2 percent, 1.7 percent, 4.9 percent, 19.6 percent, 34.0 percent, and 62.2 percent, respectively. Because our model is predicated on the historical default factors of a major rating agency, we do not generally consider alternative factors. However, when a recoverable is expected to be paid in a brief period of time by a highly-rated reinsurer, such as certain property catastrophe claims, a default factor may not be applied;
- For balances recoverable from reinsurers that are both unrated by a major rating agency and for which management is unable to determine a credible rating equivalent based on a parent or affiliated company, we may determine a rating equivalent based on our analysis of the reinsurer that considers an assessment of the creditworthiness of the particular entity, industry benchmarks, or other factors as considered appropriate. We then apply the applicable default factor for that rating class. For balances recoverable from unrated reinsurers for which our ceded reserve is below a certain threshold, we generally apply a default factor of 34.0 percent;
- For balances recoverable from reinsurers that are either insolvent or under regulatory supervision, we establish a default factor and resulting valuation allowance for uncollectible reinsurance based on specific facts and circumstances surrounding each company. Upon initial notification of an insolvency, we generally recognize expense for a substantial portion of all balances outstanding, net of collateral, through a combination of write-offs of recoverable balances and increases to the valuation allowance for uncollectible reinsurance. When regulatory action is taken on a reinsurer, we generally recognize a default factor by estimating an expected recovery on all balances outstanding, net of collateral. When sufficient credible information becomes available, we adjust the valuation allowance for uncollectible reinsurance by establishing a default factor pursuant to information received; and
- For captives and other recoverables, management determines the valuation allowance for uncollectible reinsurance based on the specific facts and circumstances.

The following table summarizes reinsurance recoverables and the valuation allowance for uncollectible reinsurance for each type of recoverable balance at December 31, 2020:

(in millions of U.S. dollars)	Gross Reinsurance Recoverables on Losses and Loss Expenses	Recoverables (net of Usable Collateral)	Valuation Allowance for Uncollectible Reinsurance [1]
Type			
Reinsurers with credit ratings	**$ 12,479**	**$ 10,814**	**$ 179**
Reinsurers not rated	**290**	**154**	**57**
Reinsurers under supervision and insolvent reinsurers	**64**	**60**	**35**
Captives	**2,107**	**372**	**11**
Other - structured settlements and pools	**966**	**965**	**32**
Total	**$ 15,906**	**$ 12,365**	**$ 314**

[1] The valuation allowance for uncollectible reinsurance is based on a default analysis applied to gross reinsurance recoverables, net of approximately $3.5 billion of collateral at December 31, 2020.

At December 31, 2020, the use of different assumptions within our approach could have a material effect on the valuation allowance for uncollectible reinsurance. To the extent the creditworthiness of our reinsurers was to deteriorate due to an adverse event affecting the reinsurance industry, such as a large number of major catastrophes, actual uncollectible amounts could be significantly greater than our valuation allowance for uncollectible reinsurance. Such an event could have a material adverse effect on our financial condition, results of operations, and our liquidity. Given the various considerations used to estimate our uncollectible valuation allowance, we cannot precisely quantify the effect a specific industry event may have on the valuation allowance for uncollectible reinsurance. However, based on the composition (particularly the average credit quality) of the reinsurance recoverable balance at December 31, 2020, we estimate that a ratings downgrade of one notch for all rated reinsurers (e.g., from A to A- or A- to BBB+) could increase our valuation allowance for uncollectible reinsurance by approximately $81 million or approximately 0.5 percent of the gross reinsurance recoverable balance, assuming no other changes relevant to the calculation. While a ratings downgrade would result in an increase in our valuation allowance for uncollectible reinsurance and a charge to earnings in that period, a downgrade in and of itself does not imply that we will be unable to collect all of the ceded reinsurance recoverable from the reinsurers in question. Refer to Note 5 to the Consolidated Financial Statements for additional information.

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 and Note 13 to the Consolidated Financial Statements for information on our fair value measurements.

Assessment of investment portfolio credit losses

Each quarter, we evaluate current expected credit losses (CECL) for fixed maturity securities classified as held to maturity and expected credit losses (ECL) for fixed maturity securities classified as available for sale. Because our investment portfolio is the largest component of consolidated assets, CECL and ECL could be material to our financial condition and results of operations. Refer to Notes 1 e) and 3 to the Consolidated Financial Statements for more information.

Deferred income taxes

At December 31, 2020, our net deferred tax liability was $892 million. Our deferred tax assets and liabilities primarily result from temporary differences between the amounts recorded in our Consolidated Financial Statements and the tax basis of our assets and liabilities. We determine deferred tax assets and liabilities separately for each tax-paying component (an individual entity or group of entities that is consolidated for tax purposes) in each tax jurisdiction. The realization of deferred tax assets depends upon the existence of sufficient taxable income within the carryback or carryforward periods under the tax law in the applicable tax jurisdiction. There may be changes in tax laws in a number of countries where we transact business that impact our deferred tax assets and liabilities.

At each balance sheet date, management assesses the need to establish a valuation allowance that reduces deferred tax assets when it is more likely than not that all, or some portion, of the deferred tax assets will not be realized. The determination of the need for a valuation allowance is based on all available information including projections of future taxable income, principally derived from business plans and where appropriate available tax planning strategies. Projections of future taxable income incorporate assumptions of future business and operations that are apt to differ from actual experience. If our assumptions and estimates that resulted in our forecast of future taxable income prove to be incorrect, an additional valuation allowance could become necessary, which could have a material adverse effect on our financial condition, results of operations, and liquidity. At December 31, 2020, the valuation allowance of $83 million reflects management's assessment that it is more likely than not that a portion of the deferred tax assets will not be realized due to the inability of certain subsidiaries to generate sufficient taxable income.

Assumed reinsurance programs involving minimum benefit guarantees under variable annuity contracts
Chubb reinsures various death and living benefit guarantees associated with variable annuities issued primarily in the United States. We ceased writing this business in 2007. Guarantees which are payable on death are referred to as guaranteed minimum death benefits (GMDB). Guarantees on living benefits (GLB) consist mainly of guaranteed minimum income benefits (GMIB). For further description of this product and related accounting treatment, refer to Note 1 j) to the Consolidated Financial Statements.

Guaranteed living benefits (GLB) derivatives
Our GLB reinsurance is classified as a derivative for accounting purposes and therefore carried at fair value. Changes in fair value are reflected in Net realized gains (losses) in the Consolidated statements of operations.

Determination of GLB fair value
The fair value of GLB reinsurance is estimated using an internal valuation model, which includes current market information and estimates of policyholder behavior from the perspective of a theoretical market participant that would assume these liabilities. All of our treaties contain claim limits, which are factored into the valuation model. The fair value depends on a number of factors, including interest rates, equity markets, credit risk, current account value, market volatility, expected annuitization rates and other policyholder behavior, and changes in policyholder mortality. The 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 more timely market information. Due to the inherent uncertainties of the assumptions used in the valuation models to determine the fair value of these derivative products, actual experience may differ materially from the estimates reflected in our Consolidated Financial Statements.

We intend to hold these derivative contracts to maturity (i.e., the expiration of the underlying liabilities through lapse, annuitization, death, or expiration of the reinsurance contract). To partially offset the risk of changes in the fair value of GLB reinsurance contracts, we invest in derivative hedge instruments.

For further information on the estimates and assumptions used in determining the fair value of GLB reinsurance, refer to Note 4 to the Consolidated Financial Statements. For a sensitivity discussion of the effect of changes in interest rates, equity indices, and other assumptions on the fair value of GLBs, and the estimated resulting impact on our net income, refer to Item 7A.

Determination of GMDB benefit reserves
Management established benefit reserves based on a long-term benefit ratio (or loss ratio) calculated using assumptions reflecting management's best estimate of the future performance of the GMDB variable annuity line of business. Despite the long-term nature of the risk, the benefit ratio calculation is impacted by short-term market movements that may be judged by management to be transient. Management regularly examines both qualitative and quantitative analysis, including a review of the differential between the benefit ratio used at the most recent valuation date and the benefit ratio calculated on subsequent dates. Management regularly evaluates its estimates and uses judgment to determine the extent to which assumptions underlying the benefit ratio calculation should be adjusted. For the year ended December 31, 2020, management determined that no change to the benefit ratio was warranted.

Risk Management
We employ a strategy to manage the financial market and policyholder behavior risks embedded in the reinsurance of variable annuity (VA) guarantees. Risk management begins with underwriting a prospective client and guarantee design, with particular focus on protecting our position from policyholder options that, because of anti-selective behavior, could adversely impact our obligation.

A second layer of risk management is the structure of the reinsurance contracts. All VA guarantee reinsurance contracts include some form of annual or aggregate claim limit(s) primarily designed to reduce our exposure to severe equity market and interest rate declines (which would cause an increase in expected claims).

A third layer of risk management is the hedging strategy which looks to mitigate both long-term economic loss over time as well as dampen income statement volatility. We owned financial market instruments as part of the hedging strategy with a fair value liability of $17 million and $13 million at December 31, 2020 and 2019, respectively. The instruments are substantially collateralized on a daily basis.

We also limit the aggregate amount of variable annuity reinsurance guarantee risk we are willing to assume. The last substantive transactions were quoted in late 2007. The aggregate number of policyholders is currently decreasing through policyholder withdrawals, annuitizations, and deaths at a rate of 5 percent to 15 percent per annum.

Note that GLB claims cannot occur for any reinsured policy until it has reached the end of its "waiting period". As of December 31, 2020, 93 percent of the policies we reinsure reached the end of their "waiting periods".

Collateral
Chubb maintains collateral, including letters of credit (LOC), on behalf of most of its clients in the form of qualified assets in trust or letters of credit, typically in an amount sufficient for the client to obtain statutory reserve credit for the reinsurance. The timing of the calculation and amount of the collateral varies by client according to the particulars of the reinsurance treaty and the statutory reserve guidelines of the client's domicile. Refer to "Credit Facilities" for a discussion of the LOC related to our variable annuity program.

Goodwill impairment assessment
Goodwill, which represents the excess of acquisition cost over the estimated fair value of net assets acquired, was $15.4 billion and $15.3 billion at December 31, 2020 and 2019, respectively. Goodwill is assigned to applicable reporting units of acquired entities at the time of acquisition. Our reporting units are the same as our reportable segments. For goodwill balances by reporting units, refer to Note 6 to the Consolidated Financial Statements.

Goodwill is not amortized but is subject to a periodic evaluation for impairment at least annually, or earlier if there are any indications of possible impairment. Impairment is tested at the reporting unit level. The impairment evaluation first uses a qualitative assessment to determine whether it is more likely than not (i.e., more than a 50 percent probability) that the fair value of a reporting unit is greater than its carrying amount. If a reporting unit fails this qualitative assessment, a single quantitative analysis is used to measure and record the amount of the impairment.

In assessing the fair value of a reporting unit, we make assumptions and estimates about the profitability attributable to our reporting units, including:

- short-term and long-term growth rates; and
- estimated cost of equity and changes in long-term risk-free interest rates.

If our assumptions and estimates made in assessing the fair value of acquired entities change, we could be required to write-down the carrying value of goodwill which could be material to our results of operations in the period the charge is taken. Based on our impairment testing for 2020, we determined no impairment was required and none of our reporting units was at risk for impairment.

Consolidated Operating Results – Years Ended December 31, 2020, 2019, and 2018

(in millions of U.S. dollars, except for percentages)	2020	2019	2018	% Change 2020 vs. 2019	% Change 2019 vs. 2018
Net premiums written	**$ 33,820**	$ 32,275	$ 30,579	4.8 %	5.5 %
Net premiums written - constant dollars[1]				5.5 %	7.0 %
Net premiums earned	**33,117**	31,290	30,064	5.8 %	4.1 %
Net investment income	**3,375**	3,426	3,305	(1.5)%	3.6 %
Net realized gains (losses)	**(498)**	(530)	(652)	(6.1)%	(18.8)%
Total revenues	**35,994**	34,186	32,717	5.3 %	4.5 %
Losses and loss expenses	**21,710**	18,730	18,067	15.9 %	3.7 %
Policy benefits	**784**	740	590	5.9 %	25.5 %
Policy acquisition costs	**6,547**	6,153	5,912	6.4 %	4.1 %
Administrative expenses	**2,979**	3,030	2,886	(1.7)%	5.0 %
Interest expense	**516**	552	641	(6.4)%	(13.9)%
Other (income) expense	**(994)**	(596)	(434)	66.8 %	37.2 %
Amortization of purchased intangibles	**290**	305	339	(4.9)%	(10.2)%
Chubb integration expenses	**—**	23	59	NM	(61.7)%
Total expenses	**31,832**	28,937	28,060	10.0 %	3.1 %
Income before income tax	**4,162**	5,249	4,657	(20.7)%	12.7 %
Income tax expense	**629**	795	695	(20.8)%	14.3 %
Net income	**$ 3,533**	$ 4,454	$ 3,962	(20.7)%	12.4 %

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.

Net Premiums Written

(in millions of U.S. dollars, except for percentages)	2020	2019	2018	% Change 2020 vs. 2019	% Change 2019 vs. 2018	% Change C$ 2020 vs. 2019
Commercial casualty	**$ 6,177**	$ 5,654	$ 5,204	9.2 %	8.7 %	9.3 %
Workers' compensation	**2,015**	2,098	2,094	(4.0)%	0.1 %	(4.0)%
Professional liability	**4,201**	3,697	3,527	13.6 %	4.8 %	14.0 %
Surety	**531**	639	635	(16.9)%	0.6 %	(14.5)%
Commercial multiple peril [1]	**1,047**	983	910	6.6 %	8.0 %	6.6 %
Property and other short-tail lines	**5,231**	4,468	4,016	17.1 %	11.3 %	18.3 %
Total Commercial P&C	**19,202**	17,539	16,386	9.5 %	7.0 %	10.0 %
Agriculture	**1,846**	1,810	1,577	2.0 %	14.8 %	2.0 %
Personal automobile	**1,550**	1,786	1,695	(13.2)%	5.4 %	(10.0)%
Personal homeowners	**3,627**	3,513	3,391	3.2 %	3.6 %	3.5 %
Personal other	**1,656**	1,514	1,508	9.4 %	0.3 %	9.8 %
Total Personal lines	**6,833**	6,813	6,594	0.3 %	3.3 %	1.5 %
Total Property and Casualty lines	**27,881**	26,162	24,557	6.6 %	6.5 %	7.2 %
Global A&H lines [2]	**3,859**	4,315	4,277	(10.6)%	0.9 %	(9.7)%
Reinsurance lines	**731**	649	671	12.6 %	(3.2)%	12.1 %
Life	**1,349**	1,149	1,074	17.4 %	7.0 %	18.4 %
Total consolidated	**$ 33,820**	$ 32,275	$ 30,579	4.8 %	5.5 %	5.5 %

[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 in 2020 principally reflects positive growth in commercial P&C lines globally, partially offset by negative growth in consumer P&C lines primarily from outside North America. The increase in net premiums written principally reflected new business, positive rate increases and higher renewal retention. This growth was tempered by the adverse impact of the economic contraction resulting from the COVID-19 pandemic, principally in consumer P&C lines.

- The growth in commercial casualty was due to new business, positive rate increases and growth in North America, Asia and Europe, partially offset by the adverse impact of the COVID-19 pandemic, including $58 million of exposure adjustments on in-force policies which depressed growth by 1.1 percentage points.
- Workers' compensation was adversely impacted by market conditions and by the adverse impact of the economic contraction resulting from the COVID-19 pandemic. The decrease included $121 million of exposure adjustments on in-force policies which depressed growth by 5.8 percentage points.
- The increase in professional liability was due to new business and positive rate increases primarily in North America, Asia and Europe.
- Surety decreased in North America and Latin America due to market conditions and the adverse impact of the economic contraction resulting from the COVID-19 pandemic.
- Commercial multiple peril increased due to strong renewal retention and positive rate increases in North America. The increase was partially offset by the adverse impact of the economic contraction resulting from the COVID-19 pandemic.
- Property and other short-tail lines increased due to new business and positive rate increases primarily in North America and Europe.
- Personal lines increased primarily due to positive rate increases and strong renewal retention in homeowners business in North America, as well as growth in Europe. In addition, North America benefited from the favorable year-over-year impact of reinstatement premiums. The increase was partially offset by the impact of the COVID-19 pandemic, which caused declines in automobile business in Latin America and North America.
- Global A&H lines decreased in all regions, principally from less travel volume due to the COVID-19 pandemic.
- The increase in Life was primarily driven by growth in Latin America, principally driven by our expanded presence in Chile, and in the Asian international life operations.

For additional information on net premiums written, refer to the segment results discussions.

Net Premiums Earned

Net premiums earned for short-duration contracts, typically P&C contracts, generally reflect the portion of net premiums written that were recorded as revenues for the period as the exposure periods expire. Net premiums earned for long-duration contracts, typically traditional life contracts, generally are recognized as earned when due from policyholders. Net premiums earned increased $1.8 billion, or $2.0 billion on a constant-dollar basis in 2020, comprising 8.9 percent positive growth in commercial P&C lines and 2.5 percent positive growth in consumer lines on a constant-dollar basis.

Catastrophe Losses and Prior Period Development

Catastrophe losses exclude reinstatement premiums which 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. Prior period development is net of related adjustments which typically relate 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.

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. The tables below represent catastrophe loss estimates for events that occurred in the related calendar year only. Changes in catastrophe loss estimates in the current calendar year that relate to loss events that occurred in previous calendar years are considered prior period development and are excluded from the tables below.

Catastrophe Loss Charge by Event For Full Year 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	Total excluding RIPs	RIPs collected (expensed)	Total including RIPs
Net losses									
COVID-19	$ 925	$ —	$ —	$ 421	$ 10	$ 24	$ 1,380	$ (16)	$ 1,396
U.S. hurricanes/tropical storms	429	132	1	79	86	—	727	7	720
U.S. flooding, hail, tornadoes, and wind events	295	191	25	9	11	—	531	(3)	534
U.S. wildfires	61	162	1	5	1	—	230	—	230
Civil unrest	111	2	—	17	—	—	130	—	130
International weather-related events	3	6	—	67	15	—	91	2	89
Midwest derecho	37	38	8	—	1	—	84	—	84
Australia storms	—	—	—	66	—	—	66	—	66
Other	7	2	—	26	(1)	—	34	—	34
Total	$ 1,868	$ 533	$ 35	$ 690	$ 123	$ 24	$ 3,273		
RIPs collected (expensed)	(3)	(1)	(1)	(15)	10	—		(10)	
Total before income tax	$ 1,871	$ 534	$ 36	$ 705	$ 113	$ 24			$ 3,283
Income tax benefit									506
Total after income tax									$ 2,777

Catastrophe Loss Charge by Event For Full Year 2019

(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	Total excluding RIPs	RIPs collected (expensed)	Total including RIPs
Net losses								
U.S. flooding, hail, tornadoes, and wind events	$ 220	$ 202	$ 7	$ —	$ 9	$ 438	$ —	$ 438
Tornado in Dallas, Texas	55	145	—	—	2	202	(11)	213
Winter-related storms	74	110	1	6	2	193	—	193
Hurricane Dorian	26	30	—	10	8	74	1	73
California wildfires	11	45	—	—	—	56	—	56
Typhoon Hagibis	—	—	—	20	17	37	1	36
Civil unrest in Hong Kong and Chile	—	—	—	33	—	33	(4)	37
International weather-related events	1	2	—	30	—	33	—	33
Other	34	9	—	53	13	109	1	108
Total	$ 421	$ 543	$ 8	$ 152	$ 51	$ 1,175		
RIPs collected (expensed)	—	(11)	—	(4)	3		(12)	
Total before income tax	$ 421	$ 554	$ 8	$ 156	$ 48			$ 1,187
Income tax benefit								221
Total after income tax								$ 966

Catastrophe Loss Charge by Event For Full Year 2018

(in millions of U.S. dollars)	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Total excluding RIPs	RIPs collected (expensed)	Total including RIPs
Net losses								
Hurricane Michael	$ 187	$ 16	$ 6	$ 6	$ 85	$ 300	$ 15	$ 285
U.S. flooding, hail, tornadoes, and wind events [1]	162	157	7	—	6	332	—	332
Northeast winter storms	43	117	—	—	5	165	—	165
California wildfires	51	61	1	1	58	172	(23)	195
Hurricane Florence	109	29	7	15	14	174	1	173
California mudslides	4	120	—	1	—	125	—	125
Colorado rain and hail storm	7	65	—	1	—	73	—	73
International weather-related events	—	—	—	182	31	213	2	211
Other	16	46	—	—	6	68	1	67
Total	$ 579	$ 611	$ 21	$ 206	$ 205	$ 1,622		
RIPs collected (expensed)	—	(26)	—	—	22		(4)	
Total before income tax	$ 579	$ 637	$ 21	$ 206	$ 183			$ 1,626
Income tax benefit								272
Total after income tax								$ 1,354

[1] This grouping comprised of 34 separate events, principally impacting the southern and northeastern regions of the U.S.

Prior Period Development

(in millions of U.S. dollars)	2020	2019	2018
Favorable prior period development	**$ 395**	$ 792	$ 896

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 prior period development for the year ended 2020 was $395 million, which included adverse development of $259 million for U.S. child molestation claims, predominately reviver statute-related, and $106 million adverse development related to legacy asbestos and environmental liabilities. The remaining favorable development of $760 million principally comprises 89 percent long-tail lines, principally from accident years 2016 and prior, and 11 percent short-tail lines.

Pre-tax net favorable prior period development for the year ended 2019 was $792 million, which included favorable development of $80 million in our crop insurance business and adverse development of $116 million related to legacy run-off exposures, principally asbestos and environmental liabilities. The remaining favorable development of $828 million comprised 92 percent long-tail lines, principally from accident years 2015 and prior, and 8 percent short-tail lines.

Refer to the Prior Period Development section in Note 7 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, the loss and loss expense ratio, the policy acquisition cost ratio, and the administrative expense ratio. We calculate these ratios by dividing the respective expense amounts by net premiums earned. We do not calculate these ratios for the Life Insurance segment as we do not use these measures to monitor or manage that segment. The P&C combined ratio is determined by adding the loss and loss expense ratio, the policy acquisition cost ratio, and the administrative expense ratio. A P&C combined ratio under 100 percent indicates underwriting income, and a combined ratio exceeding 100 percent indicates underwriting loss.

	2020	2019	2018
Loss and loss expense ratio			
CAY loss ratio excluding catastrophe losses	**59.2 %**	60.8 %	59.6 %
Catastrophe losses	**10.6 %**	4.1 %	5.8 %
Favorable prior period development	**(1.3)%**	(2.8)%	(3.3)%
Loss and loss expense ratio	**68.5 %**	62.1 %	62.1 %
Policy acquisition cost ratio	**18.9 %**	19.1 %	19.2 %
Administrative expense ratio	**8.7 %**	9.4 %	9.3 %
P&C Combined ratio	**96.1 %**	90.6 %	90.6 %

The loss and loss expense ratio increased 6.4 percentage points in 2020 principally due to higher catastrophe losses and lower favorable prior period development.

The CAY loss ratio excluding catastrophe losses decreased 1.6 percentage points in 2020 principally due to a decrease in the underlying loss ratio reflecting earned rate increases exceeding loss cost trends, better underlying claims experience, and a more average crop loss year in 2020.

Policy acquisition costs consist of commissions, premium taxes, and certain underwriting costs directly related to the successful acquisition of a new or renewal insurance contract. The policy acquisition cost ratio decreased 0.2 percentage points in 2020 due to a change in the mix of business, including less premiums earned from A&H lines that have a lower acquisition cost ratio, reflecting the impact of the COVID-19 pandemic.

The administrative expense ratio decreased 0.7 percentage points in 2020 primarily due to lower business expenses from continued expense management control, including during the COVID-19 pandemic, lower employee benefit-related expenses 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.

Policy benefits were $784 million, $740 million and $590 million in 2020, 2019 and 2018, respectively, which included separate account liabilities (gains) losses of $58 million, $44 million and $(38) 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 $726 million in 2020 compared with $696 million, principally from new business from our expanded presence in Chile and growth in Asia.

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 – Years Ended December 31, 2020, 2019, and 2018

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. In addition, the results of our run-off Brandywine business, including all run-off asbestos and environmental (A&E) exposures, and the results of Westchester specialty operations for 1996 and prior years are presented within Corporate.

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).

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$14,474**	$13,375	$12,485	8.2 %	7.1 %
Net premiums earned	**13,964**	12,922	12,402	8.1 %	4.2 %
Losses and loss expenses	**10,129**	8,206	8,000	23.4 %	2.6 %
Policy acquisition costs	**1,942**	1,831	1,829	6.1 %	0.2 %
Administrative expenses	**1,006**	1,028	966	(2.2)%	6.4 %
Underwriting income	**887**	1,857	1,607	(52.2)%	15.5 %
Net investment income	**2,061**	2,109	2,061	(2.3)%	2.3 %
Other (income) expense	**23**	24	3	(4.2)%	NM
Segment income	**$ 2,925**	$ 3,942	$ 3,665	(25.8)%	7.5 %
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**64.2 %**	65.3 %	64.9 %	(1.1) pts	0.4 pts
Catastrophe losses	**13.4 %**	3.3 %	4.7 %	10.1 pts	(1.4) pts
Prior period development	**(5.1)%**	(5.1)%	(5.1)%	— pts	— pts
Loss and loss expense ratio	**72.5 %**	63.5 %	64.5 %	9.0 pts	(1.0) pt
Policy acquisition cost ratio	**14.0 %**	14.2 %	14.7 %	(0.2) pts	(0.5) pts
Administrative expense ratio	**7.2 %**	7.9 %	7.8 %	(0.7) pts	0.1 pts
Combined ratio	**93.7 %**	85.6 %	87.0 %	8.1 pts	(1.4) pts

NM – not meaningful

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	2020	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 1,868**	$ 421	$ 579
Favorable prior period development	**$ 702**	$ 649	$ 610

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

Premiums

Net premiums written increased $1,099 million, or 8.2 percent in 2020, comprising positive growth of 9.6 percent in commercial P&C lines and negative growth of 13.8 percent in consumer lines. The growth in commercial P&C lines reflects positive rate increases, strong renewal retention and new business written across a number of retail and wholesale lines, including property, financial lines, excess casualty, large risk casualty, and commercial multiple peril. Net premiums written in 2020 was depressed by economic contraction resulting from the COVID-19 pandemic including $160 million of exposure adjustments on in-force policies, and lower renewal exposures and new business market limitations that impacted several lines of business, including A&H, surety, entertainment, hospitality, retail, and construction.

Net premiums earned increased $1,042 million, or 8.1 percent in 2020, due to the growth in net premiums written described above. The increase in net premiums earned was adversely impacted by the COVID-19 pandemic, including $154 million of exposure adjustments on in-force policies in 2020.

Combined Ratio

The loss and loss expense ratio increased 9.0 percentage points in 2020 due principally to higher catastrophe losses, including losses related to COVID-19 pandemic claims. The CAY loss ratio excluding catastrophe losses decreased 1.1 percentage points in 2020 primarily due to margin improvements coming from earned rate exceeding loss cost trends.

The administrative expense ratio decreased 0.7 percentage points in 2020 primarily due to lower business expenses from continued expense management control, including during the COVID-19 pandemic, lower employee benefit-related expenses, and the favorable impact of higher net premiums earned.

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)	2020	2019	2018	% Change 2020 vs. 2019	% Change 2019 vs. 2018
Net premiums written	**$4,920**	$4,787	$4,674	2.8 %	2.4 %
Net premiums earned	**4,866**	4,694	4,593	3.7 %	2.2 %
Losses and loss expenses	**3,187**	3,043	3,229	4.7 %	(5.8)%
Policy acquisition costs	**974**	948	939	2.7 %	1.0 %
Administrative expenses	**270**	286	269	(5.4)%	6.0 %
Underwriting income	**435**	417	156	4.6 %	167.2 %
Net investment income	**260**	258	236	0.5 %	9.2 %
Other (income) expense	**5**	3	1	75.8 %	117.1 %
Amortization of purchased intangibles	**11**	12	13	(5.0)%	(11.1)%
Segment income	**$ 679**	$ 660	$ 378	2.8 %	74.7 %
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**53.1 %**	55.1 %	55.8 %	(2.0) pts	(0.7) pts
Catastrophe losses	**11.0 %**	11.6 %	13.6 %	(0.6) pts	(2.0) pts
Prior period development	**1.4 %**	(1.9)%	0.9 %	3.3 pts	(2.8) pts
Loss and loss expense ratio	**65.5 %**	64.8 %	70.3 %	0.7 pts	(5.5) pts
Policy acquisition cost ratio	**20.0 %**	20.2 %	20.4 %	(0.2) pts	(0.2) pts
Administrative expense ratio	**5.6 %**	6.1 %	5.9 %	(0.5) pts	0.2 pts
Combined ratio	**91.1 %**	91.1 %	96.6 %	— pts	(5.5) pts

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	2020	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 533**	$ 543	$ 611
Favorable (unfavorable) prior period development	**$ (63)**	$ 95	$ (41)

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

Premiums

Net premiums written increased $133 million, or 2.8 percent for 2020, primarily due to rate increases and strong account retention across most lines. In addition, net premiums written also increased due to the favorable year-over-year impact of reinstatement premiums of $24 million. Growth was partially offset by $29 million in lower automobile premiums as a result of reduced exposures related to the conditions caused by the COVID-19 pandemic.

Net premiums earned increased $172 million, or 3.7 percent for 2020, reflecting the growth in net premiums written described above.

Combined Ratio

The loss and loss expense ratio increased 0.7 percentage points in 2020, primarily due to unfavorable prior period development in the current year compared to favorable prior period development in the prior year. The CAY loss ratio excluding catastrophe losses decreased 2.0 percentage points in 2020 due to better underlying claims experience reflecting indirect COVID-19 benefits and lower than expected claims frequency of weather and water losses in our homeowners line.

The administrative expense ratio decreased 0.5 percentage points in 2020 primarily due to lower employee benefit-related expenses and lower business expenses from continued expense management control, including during the COVID-19 pandemic, partially offset by normal inflationary increases.

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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$1,846**	$1,810	$1,577	2.0 %	14.8 %
Net premiums earned	**1,822**	1,795	1,569	1.5 %	14.4 %
Losses and loss expenses	**1,544**	1,616	1,114	(4.5)%	45.1 %
Policy acquisition costs	**123**	84	79	45.7 %	6.8 %
Administrative expenses	**9**	6	(9)	67.2 %	NM
Underwriting income	**146**	89	385	65.3 %	(77.0)%
Net investment income	**30**	30	28	—	5.0 %
Other (income) expense	**1**	1	2	—	(33.6)%
Amortization of purchased intangibles	**27**	28	28	(2.1)%	(2.0)%
Segment income	**$ 148**	$ 90	$ 383	65.1 %	(76.6)%
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**83.7 %**	93.5 %	76.7 %	(9.8) pts	16.8 pts
Catastrophe losses	**2.0 %**	0.5 %	1.3 %	1.5 pts	(0.8) pts
Prior period development	**(1.0)%**	(3.9)%	(7.0)%	2.9 pts	3.1 pts
Loss and loss expense ratio	**84.7 %**	90.1 %	71.0 %	(5.4) pts	19.1 pts
Policy acquisition cost ratio	**6.8 %**	4.7 %	5.0 %	2.1 pts	(0.3) pts
Administrative expense ratio	**0.5 %**	0.3 %	(0.5)%	0.2 pts	0.8 pts
Combined ratio	**92.0 %**	95.1 %	75.5 %	(3.1) pts	19.6 pts

NM - not meaningful

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	**2020**	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 35**	$ 8	$ 21
Favorable prior period development	**$ 10**	$ 80	$ 110

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

For 2020, prior period development included $19 million of favorable incurred losses, partially offset by $6 million of higher acquisition costs due to lower than expected MPCI losses for the 2019 crop year and a $3 million decrease in net premiums earned related to the MPCI profit and loss calculation formula. For 2019, prior period development included $103 million of favorable incurred losses and $13 million of lower acquisition costs due to lower than expected MPCI losses for the 2018 crop year, partially offset by a $36 million decrease in net premiums earned related to the MPCI profit and loss calculation formula.

Premiums

Net premiums written increased $36 million, or 2.0 percent in 2020, primarily due to growth in our Chubb Agribusiness unit, principally farm and specialty P&C, partly offset by a decrease in MPCI premiums. Net premiums earned increased $27 million, or 1.5 percent in 2020 reflecting the growth in net premiums written described above.

Combined Ratio

The loss and loss expense ratio decreased 5 4 percentage points in 2020, reflecting a more average crop loss year in 2020. In addition, the current year had lower underlying losses in our Chubb Agribusiness unit, partially offset by lower favorable prior period development. The CAY loss ratio excluding catastrophe losses decreased 9.8 percentage points in 2020 reflecting the factors described above.

The policy acquisition cost ratio increased 2.1 percentage points in 2020, primarily due to higher agent profit sharing commission in the current year as a result of higher underwriting margin.

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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$9,335**	$9,262	$8,902	0.8 %	4.0 %
Net premiums written - constant dollars				2.9 %	8.4 %
Net premiums earned	**9,285**	8,882	8,612	4.5 %	3.1 %
Losses and loss expenses	**5,255**	4,606	4,429	14.1 %	4.0 %
Policy acquisition costs	**2,568**	2,501	2,346	2.7 %	6.6 %
Administrative expenses	**1,034**	1,033	1,014	0.1 %	1.9 %
Underwriting income	**428**	742	823	(42.4)%	(9.8)%
Net investment income	**534**	588	622	(9.2)%	(5.3)%
Other (income) expense	**13**	12	3	4.5 %	NM
Amortization of purchased intangibles	**45**	45	41	—	8.3 %
Segment income	**$ 904**	$1,273	$1,401	(29.0)%	(9.2)%
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**50.7 %**	51.2 %	51.5 %	(0.5) pts	(0.3) pts
Catastrophe losses	**7.5 %**	1.8 %	2.4 %	5.7 pts	(0.6) pts
Prior period development	**(1.6)%**	(1.1)%	(2.5)%	(0.5) pts	1.4 pts
Loss and loss expense ratio	**56.6 %**	51.9 %	51.4 %	4.7 pts	0.5 pts
Policy acquisition cost ratio	**27.7 %**	28.1 %	27.2 %	(0.4) pts	0.9 pts
Administrative expense ratio	**11.1 %**	11.6 %	11.8 %	(0.5) pts	(0.2) pts
Combined ratio	**95.4 %**	91.6 %	90.4 %	3.8 pts	1.2 pts

NM – not meaningful

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	2020	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 690**	$ 152	$ 206
Favorable prior period development	**$ 150**	$ 92	$ 212

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

Net Premiums Written by Region

					% Change		
(in millions of U.S. dollars, except for percentages)	2020	2019	2018	C$ 2019	2020 vs. 2019	C$ 2020 vs. 2019	2019 vs. 2018
Region							
Europe	**$ 4,099**	$ 3,631	$ 3,508	$ 3,655	12.9 %	12.1 %	3.5 %
Latin America	**1,928**	2,277	2,181	2,066	(15.3)%	(6.7)%	4.4 %
Asia	**2,965**	3,021	2,884	3,022	(1.9)%	(1.9)%	4.7 %
Other [1]	**343**	333	329	329	3.2 %	4.2 %	1.1 %
Net premiums written	**$ 9,335**	$ 9,262	$ 8,902	$ 9,072	0.8 %	2.9 %	4.0 %

	2020 % of Total	2019 % of Total	2018 % of Total
Region			
Europe	**43 %**	38 %	39 %
Latin America	**21 %**	25 %	25 %
Asia	**32 %**	33 %	32 %
Other [1]	**4 %**	4 %	4 %
Net premiums written	**100 %**	100 %	100 %

[1] Comprises Combined International, Eurasia and Africa region, and other international.

Premiums

Net premiums written increased $73 million in 2020, or $263 million on a constant-dollar basis, reflecting growth in commercial P&C lines of 10.8 percent across all regions resulting from new business, retention, and positive rate increases, partially offset by a decline in consumer lines of 6.4 percent. Net premiums written in 2020 were depressed by economic contraction resulting from the COVID-19 pandemic including $24 million of exposure adjustments on in-force policies, and lower premiums in several lines, mainly in consumer lines in Latin America, primarily automobile, and A&H in Asia, resulting from less travel volume and lower exposures.

Net premiums earned increased $403 million in 2020, or $575 million on a constant-dollar basis, reflecting the increase in net premiums written as described above and in 2019.

Combined Ratio

The loss and loss expense ratio increased 4.7 percentage points in 2020 due to higher catastrophe losses, primarily related to the COVID-19 pandemic. The CAY loss ratio excluding catastrophe losses decreased 0.5 percentage points in 2020 primarily due to a decrease in the underlying loss ratio from earned rate changes modestly above loss cost trends and a benefit from lower current accident year losses resulting from a decrease in exposures due to the COVID-19 pandemic, partially offset by lower premiums earned from A&H lines in Latin America and Asia, which have a lower loss ratio.

The policy acquisition cost ratio decreased 0.4 percentage points in 2020 primarily due to a change in the mix of business, including less premiums earned from A&H lines that have a lower acquisition cost ratio, reflecting the impact of the COVID-19 pandemic.

The administrative expense ratio decreased 0.5 percentage points in 2020 primarily due to lower business expenses from continued expense management control, including during the COVID-19 pandemic, and the favorable impact of higher net premiums earned in the current year.

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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$ 731**	$ 649	$ 671	12.6 %	(3.2)%
Net premiums written - constant dollars				12.1 %	(1.7)%
Net premiums earned	**698**	654	670	6.7 %	(2.3)%
Losses and loss expenses	**435**	352	479	23.5 %	(26.5)%
Policy acquisition costs	**174**	169	162	3.0 %	4.2 %
Administrative expenses	**37**	35	41	5.2 %	(12.7)%
Underwriting income (loss)	**52**	98	(12)	(46.8)%	NM
Net investment income	**307**	279	289	10.1 %	(3.7)%
Other (income) expense	**2**	1	—	NM	NM
Segment income	**$ 357**	$ 376	$ 277	(5.0)%	35.7 %
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**49.1 %**	50.6 %	50.5 %	(1.5) pts	0.1 pts
Catastrophe losses	**17.0 %**	7.6 %	29.2 %	9.4 pts	(21.6) pts
Prior period development	**(3.8)%**	(4.3)%	(8.1)%	0.5 pts	3.8 pts
Loss and loss expense ratio	**62.3 %**	53.9 %	71.6 %	8.4 pts	(17.7) pts
Policy acquisition cost ratio	**24.9 %**	25.7 %	24.2 %	(0.8) pts	1.5 pts
Administrative expense ratio	**5.3 %**	5.4 %	6.0 %	(0.1) pts	(0.6) pts
Combined ratio	**92.5 %**	85.0 %	101.8 %	7.5 pts	(16.8) pts

NM – not meaningful

Catastrophe Losses and Prior Period Development

(in millions of U.S dollars)	**2020**	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 123**	$ 51	$ 205
Favorable prior period development	**$ 29**	$ 29	$ 50

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

Premiums
Net premiums written increased $82 million in 2020 primarily from new business in casualty lines, rate increases in property catastrophe lines and favorable premium adjustments. Net premiums earned increased $44 million in 2020 reflecting the increase in net premiums written described above.

Combined Ratio
The loss and loss expense ratio increased 8.4 percentage points in 2020 primarily due to higher catastrophe losses.

The CAY loss ratio excluding catastrophe losses decreased 1.5 percentage points in 2020 primarily from a shift in mix of business towards catastrophe lines which have a lower loss ratio.

The policy acquisition cost ratio decreased 0.8 percentage points in 2020 primarily due to a shift in mix of business towards lines which have lower acquisition costs and favorable expense adjustments on prior period development.

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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$ 2,514**	$ 2,392	$ 2,270	5.1 %	5.3 %
Net premiums written - constant dollars				5.6 %	6.4 %
Net premiums earned	**2,482**	2,343	2,218	5.9 %	5.6 %
Losses and loss expenses	**724**	757	766	(4.4)%	(1.1)%
Policy benefits	**726**	696	628	4.3 %	10.8 %
Policy acquisition costs	**766**	620	557	23.6 %	11.2 %
Administrative expenses	**320**	323	310	(1.0)%	4.5 %
Net investment income	**385**	373	341	3.3 %	9.2 %
Life Insurance underwriting income	**331**	320	298	3.6 %	6.9 %
Other (income) expense	**(74)**	(48)	(12)	53.1 %	NM
Amortization of purchased intangibles	**4**	2	2	100.0 %	—
Segment income	**$ 401**	$ 366	$ 308	9.8 %	18.6 %

NM – not meaningful

Premiums

Net premiums written increased $122 million in 2020, or $134 million on a constant-dollar basis, primarily reflecting growth in our international life operations of 23.4 percent, principally driven by our expanded presence in Chile and growth in Asia, partially offset by a decline in our North America Combined Insurance business of 6.1 percent.

Deposits

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

				% Change		
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	C$ 2020 vs. 2019	2019 vs. 2018
Deposits collected on universal life and investment contracts	**$ 1,559**	$ 1,463	$ 1,538	6.5 %	3.7 %	(4.9)%

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 $96 million, or $56 million on a constant-dollar basis, in 2020, due to growth in Taiwan that more than offset the declines in other Asian markets, principally Hong Kong and Korea, as a result of competitive market conditions and the impact of the COVID-19 pandemic.

Life Insurance underwriting income and Segment income

Life Insurance underwriting income increased $11 million in 2020, primarily due to a favorable reserve development in the current year which more than offset COVID-19 related losses of $24 million. Segment income increased $35 million primarily due to higher life insurance underwriting income and $26 million of higher other income, principally due to our share of net income from our investment in Huatai Life, our partially-owned life 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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Losses and loss expenses	**$ 435**	$ 158	$ 53	176.4 %	203.0 %
Administrative expenses	**303**	319	295	(5.0)%	8.1 %
Underwriting loss	**738**	477	348	54.8 %	36.6 %
Net investment income (loss)	**(87)**	(125)	(209)	(30.8)%	(40.5)%
Interest expense	**516**	552	641	(6.4)%	(13.9)%
Net realized gains (losses)	**(499)**	(522)	(649)	(4.6)%	(19.7)%
Other (income) expense	**(791)**	(459)	(406)	72.7 %	12.6 %
Amortization of purchased intangibles	**203**	218	255	(6.9)%	(14.3)%
Chubb integration expenses	**—**	23	59	NM	(61.7)%
Income tax expense	**629**	795	695	(20.8)%	14.4 %
Net loss	**$ (1,881)**	$ (2,253)	$ (2,450)	(16.5)%	(8.1)%

NM – not meaningful

Losses and loss expenses were primarily from adverse development relating to our Brandywine asbestos and environmental exposures, non-A&E run-off casualty exposure, including workers' compensation, and unallocated loss adjustment expenses of the A&E claims operations. Losses and loss expenses in 2020 included unfavorable prior period development of $254 million for U.S. child molestation claims, predominantly reviver statute-related. Refer to Note 7 of the Consolidated Financial Statements for further information.

Administrative expenses decreased $16 million in 2020, primarily due to lower employee benefit-related expenses, and lower travel-related costs relating to the COVID-19 pandemic.

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. 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):

(in millions of U.S. dollars)	Year Ended December 31							
	2020			2019			2018	
	Net Realized Gains (Losses)	**Net Unrealized Gains (Losses)**	**Net Impact**	Net Realized Gains (Losses)	Net Unrealized Gains (Losses)	Net Impact	Net Realized Gains (Losses)	
Fixed maturities	**$ (281)**	**$ 2,604**	**$ 2,323**	$ (31)	$ 3,738	$ 3,707	$	(302)
Fixed income and equity derivatives	**81**	**—**	**81**	(435)	—	(435)		(75)
Public equity								
Sales	**455**	**—**	**455**	58	—	58		70
Mark-to-market	**131**	**—**	**131**	46	—	46		(129)
Private equity (less than 3 percent ownership)								
Sales	**—**	**—**	**—**	(5)	—	(5)		121
Mark-to-market	**(32)**	**—**	**(32)**	(15)	—	(15)		(126)
Total investment portfolio	**354**	**2,604**	**2,958**	(382)	3,738	3,356		(441)
Variable annuity reinsurance derivative transactions, net of applicable hedges	**(310)**	**—**	**(310)**	(142)	—	(142)		(252)
Other derivatives	**1**	**—**	**1**	(8)	—	(8)		(3)
Foreign exchange	**(483)**	**306**	**(177)**	7	13	20		131
Other [1]	**(60)**	**(244)**	**(304)**	(5)	(79)	(84)		(87)
Net gains (losses), pre-tax	**$ (498)**	**$ 2,666**	**$ 2,168**	$ (530)	$ 3,672	$ 3,142	$	(652)

[1] Net unrealized gains (losses) includes our postretirement programs of $(232) million, $(76) million, and $(321) million for the years ended December 31, 2020, 2019, and 2018, respectively.

The $2,958 million gain in our investment portfolio was principally a result of narrowing of credit spreads in our corporate bond portfolio and a decline in interest rates, partially offset by $170 million of impairments for securities we intended to sell, and securities written to market entering default.

The realized losses relating to the variable annuity reinsurance derivative transactions in 2020 and 2019 reflected an increase in the fair value of GLB liabilities due to lower interest rates and changes made to our valuation model relating to policyholder behavior, partially offset by higher global equity markets. Included in the realized loss are derivative instruments that decrease in fair value when the S&P 500 index increases. During the years ended December 31, 2020 and 2019, we experienced realized losses of $108 million and $138 million respectively, related to these derivative instruments.

Effective income tax rate

Our effective income tax rate was 15.1 percent in both 2020 and 2019 and 14.9 percent in 2018. 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 income tax rate in 2020 was impacted by the higher level of catastrophe losses, principally COVID-19, and lower realized losses compared to the prior year.

The 2017 Tax Cuts and Jobs Act (2017 Tax Act) included provisions for Global Intangible Low-Taxed Income (GILTI) under which taxes may be imposed on income of U.S.-owned foreign subsidiaries and for a Base Erosion and Anti-Abuse Tax (BEAT) under which our U.S. companies could be subject to additional tax as a result, among other things, of certain payments to affiliated non-U.S. companies. There remain substantial uncertainties in the interpretation of GILTI and BEAT and portions of the formal guidance issued to date are still in part in proposed form. Finalization of the proposed guidance, and changes to the interpretations and assumptions related to these provisions may impact amounts recorded with respect to the international provisions of the 2017 Tax Act, which may be material in the period the adjustment is recorded. Refer to Note 8 to the Consolidated Financial Statements for additional information.

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:

For the Year Ended December 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	$ 10,129	$ 3,187	$ 1,544	$ 5,255	$ 435	$ 435	$ 20,985
Catastrophe losses and related adjustments								
Catastrophe losses, net of related adjustments		(1,871)	(534)	(36)	(705)	(113)	—	(3,259)
Reinstatement premiums collected (expensed) on catastrophe losses		(3)	(1)	(1)	(15)	10	—	(10)
Catastrophe losses, gross of related adjustments		(1,868)	(533)	(35)	(690)	(123)	—	(3,249)
PPD and related adjustments								
PPD, net of related adjustments - favorable (unfavorable)		702	(63)	10	150	29	(433)	395
Net premiums earned adjustments on PPD - unfavorable (favorable)		32	—	3	—	—	—	35
Expense adjustments - unfavorable (favorable)		(1)	—	6	—	(2)	—	3
PPD reinstatement premiums - unfavorable (favorable)		—	(18)	—	—	(1)	—	(19)
PPD, gross of related adjustments - favorable (unfavorable)		733	(81)	19	150	26	(433)	414
CAY loss and loss expense ex CATs	B	$ 8,994	$ 2,573	$ 1,528	$ 4,715	$ 338	$ 2	$ 18,150
Policy acquisition costs and administrative expenses								
Policy acquisition costs and administrative expenses	C	$ 2,948	$ 1,244	$ 132	$ 3,602	$ 211	$ 303	$ 8,440
Expense adjustments - favorable (unfavorable)		1	—	(6)	—	2	—	(3)
Policy acquisition costs and administrative expenses, adjusted	D	$ 2,949	$ 1,244	$ 126	$ 3,602	$ 213	$ 303	$ 8,437
Denominator								
Net premiums earned	E	$ 13,964	$ 4,866	$ 1,822	$ 9,285	$ 698		$ 30,635
Reinstatement premiums (collected) expensed on catastrophe losses		3	1	1	15	(10)		10
Net premiums earned adjustments on PPD - unfavorable (favorable)		32	—	3	—	—		35
PPD reinstatement premiums - unfavorable (favorable)		—	(18)	—	—	(1)		(19)
Net premiums earned excluding adjustments	F	$ 13,999	$ 4,849	$ 1,826	$ 9,300	$ 687		$ 30,661
P&C Combined ratio								
Loss and loss expense ratio	A/E	72.5 %	65.5 %	84.7 %	56.6 %	62.3 %		68.5 %
Policy acquisition cost and administrative expense ratio	C/E	21.2 %	25.6 %	7.3 %	38.8 %	30.2 %		27.6 %
P&C Combined ratio		93.7 %	91.1 %	92.0 %	95.4 %	92.5 %		96.1 %
CAY P&C Combined ratio ex CATs								
Loss and loss expense ratio, adjusted	B/F	64.2 %	53.1 %	83.7 %	50.7 %	49.1 %		59.2 %
Policy acquisition cost and administrative expense ratio, adjusted	D/F	21.1 %	25.6 %	6.8 %	38.7 %	31.0 %		27.5 %
CAY P&C Combined ratio ex CATs		85.3 %	78.7 %	90.5 %	89.4 %	80.1 %		86.7 %
Combined ratio								
Combined ratio								96.1 %
Add: impact of gains and losses on crop derivatives								—
P&C Combined ratio								96.1 %

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.

For the Year Ended December 31, 2019 (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**	$ 8,206	$ 3,043	$ 1,616	$ 4,606	$ 352	$ 158	$ 17,981
Catastrophe losses and related adjustments								
Catastrophe losses, net of related adjustments		(421)	(554)	(8)	(156)	(48)	—	(1,187)
Reinstatement premiums collected (expensed) on catastrophe losses		—	(11)	—	(4)	3	—	(12)
Catastrophe losses, gross of related adjustments		(421)	(543)	(8)	(152)	(51)	—	(1,175)
PPD and related adjustments								
PPD, net of related adjustments - favorable (unfavorable)		649	95	80	92	29	(153)	792
Net premiums earned adjustments on PPD - unfavorable (favorable)		38	—	36	—	1	—	75
Expense adjustments - unfavorable (favorable)		(3)	—	(13)	—	(1)	—	(17)
PPD reinstatement premiums - unfavorable (favorable)		(1)	(4)	—	1	(1)	—	(5)
PPD, gross of related adjustments - favorable (unfavorable)		683	91	103	93	28	(153)	845
CAY loss and loss expense ex CATs	**B**	$ 8,468	$ 2,591	$ 1,711	$ 4,547	$ 329	$ 5	$ 17,651
Policy acquisition costs and administrative expenses								
Policy acquisition costs and administrative expenses	**C**	$ 2,859	$ 1,234	$ 90	$ 3,534	$ 204	$ 319	$ 8,240
Expense adjustments - favorable (unfavorable)		3	—	13	—	1	—	17
Policy acquisition costs and administrative expenses, adjusted	**D**	$ 2,862	$ 1,234	$ 103	$ 3,534	$ 205	$ 319	$ 8,257
Denominator								
Net premiums earned	**E**	$ 12,922	$ 4,694	$ 1,795	$ 8,882	$ 654		$ 28,947
Reinstatement premiums (collected) expensed on catastrophe losses		—	11	—	4	(3)		12
Net premiums earned adjustments on PPD - unfavorable (favorable)		38	—	36	—	1		75
PPD reinstatement premiums - unfavorable (favorable)		(1)	(4)	—	1	(1)		(5)
Net premiums earned excluding adjustments	**F**	$ 12,959	$ 4,701	$ 1,831	$ 8,887	$ 651		$ 29,029
P&C Combined ratio								
Loss and loss expense ratio	**A/E**	63.5 %	64.8 %	90.1 %	51.9 %	53.9 %		62.1 %
Policy acquisition cost and administrative expense ratio	**C/E**	22.1 %	26.3 %	5.0 %	39.7 %	31.1 %		28.5 %
P&C Combined ratio		85.6 %	91.1 %	95.1 %	91.6 %	85.0 %		90.6 %
CAY P&C Combined ratio ex CATs								
Loss and loss expense ratio, adjusted	**B/F**	65.3 %	55.1 %	93.5 %	51.2 %	50.6 %		60.8 %
Policy acquisition cost and administrative expense ratio, adjusted	**D/F**	22.1 %	26.3 %	5.6 %	39.7 %	31.5 %		28.4 %
CAY P&C Combined ratio ex CATs		87.4 %	81.4 %	99.1 %	90.9 %	82.1 %		89.2 %
Combined ratio								
Combined ratio								90.6 %
Add: impact of gains and losses on crop derivatives								—
P&C Combined ratio								90.6 %

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.

For the Year Ended December 31, 2018 (in millions of U.S. dollars except for ratios)		North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Corporate	Total P&C
Numerator								
Losses and loss expenses	**A**	$ 8,000	$ 3,229	$ 1,114	$ 4,429	$ 479	$ 53	$ 17,304
Catastrophe losses and related adjustments								
Catastrophe losses, net of related adjustments		(579)	(637)	(21)	(206)	(183)	—	(1,626)
Reinstatement premiums collected (expensed) on catastrophe losses		—	(26)	—	—	22	—	(4)
Catastrophe losses, gross of related adjustments		(579)	(611)	(21)	(206)	(205)	—	(1,622)
PPD and related adjustments								
PPD, net of related adjustments - favorable (unfavorable)		610	(41)	110	212	50	(45)	896
Net premiums earned adjustments on PPD - unfavorable (favorable)		29	—	40	—	8	—	77
Expense adjustments - unfavorable (favorable)		7	—	(10)	—	(1)	—	(4)
PPD reinstatement premiums - unfavorable (favorable)		7	1	—	4	—	—	12
PPD, gross of related adjustments - favorable (unfavorable)		653	(40)	140	216	57	(45)	981
CAY loss and loss expense ex CATs	**B**	$ 8,074	$ 2,578	$ 1,233	$ 4,439	$ 331	$ 8	$ 16,663
Policy acquisition costs and administrative expenses								
Policy acquisition costs and administrative expenses	**C**	$ 2,795	$ 1,208	$ 70	$ 3,360	$ 203	$ 295	$ 7,931
Expense adjustments - favorable (unfavorable)		(7)	—	10	—	1	—	4
Policy acquisition costs and administrative expenses, adjusted	**D**	$ 2,788	$ 1,208	$ 80	$ 3,360	$ 204	$ 295	$ 7,935
Denominator								
Net premiums earned	**E**	$ 12,402	$ 4,593	$ 1,569	$ 8,612	$ 670		$ 27,846
Reinstatement premiums (collected) expensed on catastrophe losses		—	26	—	—	(22)		4
Net premiums earned adjustments on PPD - unfavorable (favorable)		29	—	40	—	8		77
PPD reinstatement premiums - unfavorable (favorable)		7	1	—	4	—		12
Net premiums earned excluding adjustments	**F**	$ 12,438	$ 4,620	$ 1,609	$ 8,616	$ 656		$ 27,939
P&C Combined ratio								
Loss and loss expense ratio	**A/E**	64.5 %	70.3 %	71.0 %	51.4 %	71.6 %		62.1 %
Policy acquisition cost and administrative expense ratio	**C/E**	22.5 %	26.3 %	4.5 %	39.0 %	30.2 %		28.5 %
P&C Combined ratio		87.0 %	96.6 %	75.5 %	90.4 %	101.8 %		90.6 %
CAY P&C Combined ratio ex CATs								
Loss and loss expense ratio, adjusted	**B/F**	64.9 %	55.8 %	76.7 %	51.5 %	50.5 %		59.6 %
Policy acquisition cost and administrative expense ratio, adjusted	**D/F**	22.4 %	26.1 %	4.9 %	39.0 %	31.1 %		28.4 %
CAY P&C Combined ratio ex CATs		87.3 %	81.9 %	81.6 %	90.5 %	81.6 %		88.0 %
Combined ratio								
Combined ratio								90.6 %
Add: impact of gains and losses on crop derivatives								—
P&C Combined ratio								90.6 %

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.

Net Investment Income

(in millions of U.S. dollars, except for percentages)	2020	2019	2018
Average invested assets	**$ 109,766**	$ 104,074	$ 101,453
Net investment income [1]	**$ 3,375**	$ 3,426	$ 3,305
Yield on average invested assets	**3.1 %**	3.3 %	3.3 %
Market yield on fixed maturities	**1.7 %**	2.7 %	3.7 %

[1] Includes $116 million, $161 million and $248 million of amortization expense related to the fair value adjustment of acquired invested assets related to the Chubb Corp acquisition in 2020, 2019 and 2018, respectively.

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 decreased 1.5 percent in 2020 compared with 2019, primarily due to lower reinvestment rates on new and reinvested assets, partially offset by higher average invested assets, higher dividends on public equities, and an increase in income from corporate bonds called before maturity. Refer to Note 1 e) to the Consolidated Financial Statements for additional information.

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)	2020	2019	2018
Total mark-to-market gain on private equity, pre-tax	**$ 714**	$ 449	$ 298

Amortization of Purchased Intangibles and Other Amortization

Amortization expense related to purchased intangibles was $290 million, $305 million, and $339 million for the years ended December 31, 2020, 2019, and 2018, respectively, and principally relates to the Chubb Corp acquisition. The amortization of purchased intangibles expense in 2021 is expected to be $286 million, or approximately $72 million each quarter. Refer to Note 6 to the Consolidated Financial Statements under Item 8 for more information.

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 December 31, 2020, the deferred tax liability associated with the Other intangible assets (excluding the fair value adjustment on Unpaid losses and loss expenses) was $1,295 million.

The following table presents at December 31, 2020, the expected reduction to 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 next five years:

For the Years Ending December 31 (in millions of U.S. dollars)	Reduction to deferred tax liability associated with intangible assets
2021	$ 68
2022	67
2023	61
2024	56
2025	52
Total	$ 304

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

The following table presents at December 31, 2020, 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 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]
2021	$ (110)	$ 21
2022	(103)	21
2023	—	21
2024	—	21
2025	—	21
Total	$ (213)	$ 105

[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.

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 4.0 years and 3.8 years at December 31, 2020 and 2019, respectively. We estimate that a 100 basis point (bps) increase in interest rates would reduce the valuation of our fixed income portfolio by approximately $4.3 billion at December 31, 2020.

We established credit loss valuation allowances as a result of our adoption of guidance on Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments (CECL) on January 1, 2020. The COVID-19 global pandemic and related economic conditions adversely impacted our investment portfolio in the first half of the year. This adverse impact was mitigated by the overall high credit quality of the portfolio and the stabilization of the valuation of securities due to measures announced by the U.S. Federal Reserve, including programs to support corporate and asset backed securities. Overall, the valuation allowance decreased in 2020. Refer to Notes 1 and 3 to the Consolidated Financial Statements for additional information on expected credit losses.

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)	December 31, 2020 Fair Value	December 31, 2020 Cost/ Amortized Cost, Net	December 31, 2019 Fair Value	December 31, 2019 Cost/ Amortized Cost
Fixed maturities available for sale	**$ 90,699**	**$ 85,168**	$ 85,488	$ 82,580
Fixed maturities held to maturity	**12,510**	**11,653**	13,005	12,581
Short-term investments	**4,345**	**4,349**	4,291	4,291
	107,554	**101,170**	102,784	99,452
Equity securities	**4,027**	**4,027**	812	812
Other investments	**7,945**	**7,945**	6,062	6,062
Total investments	**$ 119,526**	**$ 113,142**	$ 109,658	$ 106,326

The fair value of our total investments increased $9.9 billion during the year ended December 31, 2020, primarily due to the investing of operating cash flow and unrealized appreciation. This increase was partially offset by the payment of $1.6 billion, including collateralized deposits, to acquire additional ownership interest in Huatai Group, the payments 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 December 31, 2020 and 2019. The first table lists investments according to type and the second according to S&P credit rating:

(in millions of U.S. dollars, except for percentages)	December 31, 2020 Fair Value	December 31, 2020 % of Total	December 31, 2019 Fair Value	December 31, 2019 % of Total
U.S. Treasury / Agency	**$ 4,122**	**4 %**	$ 4,630	5 %
Corporate and asset-backed securities	**38,769**	**36 %**	34,259	33 %
Mortgage-backed securities	**20,616**	**19 %**	21,588	21 %
Municipal	**11,943**	**11 %**	12,824	12 %
Non-U.S.	**27,759**	**26 %**	25,192	25 %
Short-term investments	**4,345**	**4 %**	4,291	4 %
Total	**$ 107,554**	**100 %**	$ 102,784	100 %
AAA	**$ 15,622**	**15 %**	$ 15,714	15 %
AA	**36,125**	**33 %**	37,504	37 %
A	**19,712**	**18 %**	19,236	19 %
BBB	**17,542**	**16 %**	13,650	13 %
BB	**9,699**	**9 %**	9,474	9 %
B	**8,267**	**8 %**	6,897	7 %
Other	**587**	**1 %**	309	—
Total	**$ 107,554**	**100 %**	$ 102,784	100 %

Corporate and asset-backed securities

The following table presents our 10 largest global exposures to corporate bonds by fair value at December 31, 2020:

(in millions of U.S. dollars)	Fair Value
Wells Fargo & Co	$ 764
Bank of America Corp	689
JP Morgan Chase & Co	646
Comcast Corp	528
Morgan Stanley	466
Citigroup Inc	443
Verizon Communications Inc	418
AT&T Inc	415
Goldman Sachs Group Inc	405
HSBC Holdings Plc	387

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
December 31, 2020 (in millions of U.S. dollars)	AAA	AA	A	BBB	BB and below	Total	Total
Agency residential mortgage-backed (RMBS)	$ 126	$ 16,886	$ —	$ —	$ —	$ 17,012	$ 16,032
Non-agency RMBS	123	39	84	20	10	276	272
Commercial mortgage-backed securities	2,878	284	151	12	3	3,328	3,151
Total mortgage-backed securities	$ 3,127	$ 17,209	$ 235	$ 32	$ 13	$ 20,616	$ 19,455

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 December 31, 2020:

(in millions of U.S. dollars)	Fair Value	Amortized Cost, Net
Republic of Korea	$ 1,085	$ 976
Canada	992	950
United Kingdom	907	870
Province of Ontario	728	686
Kingdom of Thailand	637	544
United Mexican States	558	534
Province of Quebec	530	493
Federative Republic of Brazil	509	496
Commonwealth of Australia	471	423
Socialist Republic of Vietnam	394	267
Other Non-U.S. Government Securities	5,744	5,335
Total	$ 12,555	$ 11,574

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 December 31, 2020:

(in millions of U.S. dollars)	*Fair Value*	*Amortized Cost, Net*
United Kingdom	$ 2,422	$ 2,274
Canada	1,834	1,723
United States [1]	1,240	1,172
France	1,183	1,109
Australia	916	857
Netherlands	634	593
Germany	625	589
Japan	602	576
Switzerland	560	514
China	459	435
Other Non-U.S. Corporate Securities	4,729	4,460
Total	$ 15,204	$ 14,302

[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 December 31, 2020, 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 1,400 issuers, with the greatest single exposure being $176 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.

Asbestos and Environmental (A&E)

Asbestos and environmental (A&E) reserving considerations
For asbestos, Chubb faces claims relating to policies issued to manufacturers, distributors, installers, and other parties in the chain of commerce for asbestos and products containing asbestos. Claimants will generally allege damages across an extended time period which may coincide with multiple policies covering a wide range of time periods for a single insured.

Environmental claims present exposure for remediation and defense costs associated with the contamination of property as a result of pollution.

The following table presents count information for asbestos claims by causative agent and environmental claims by account, for direct policies only:

	Asbestos (by causative agent)		Environmental (by account)	
	2020	2019	**2020**	2019
Open at beginning of year	**1,724**	1,838	**1,217**	1,361
Newly reported/reopened	**192**	173	**130**	140
Closed or otherwise disposed	**193**	287	**113**	284
Open at end of year	**1,723**	1,724	**1,234**	1,217

Survival ratios are calculated by dividing the asbestos or environmental loss and allocated loss adjustment expense (ALAE) reserves by the average asbestos or environmental loss and ALAE payments for the three most recent calendar years (3-year survival ratio). The 3-year survival ratios for gross and net Asbestos loss and ALAE reserves were 5.9 years and 6.3 years, respectively. The 3-year survival ratios for gross and net Environmental loss and ALAE reserves were 4.9 years and 25.5 years, respectively. The net 3-year survival ratios were impacted by favorable reinsurance settlements in 2018. Excluding the settlements, the 3-year survival ratio for net Asbestos loss and ALAE reserves and net Environmental loss and ALAE reserves were 6.0 years and 5.2 years, respectively. The survival ratios provide only a very rough depiction of reserves and are significantly impacted by a number of factors such as aggressive settlement practices, variations in gross to ceded relationships within the asbestos or environmental claims, and levels of coverage provided. Therefore, we urge caution in using these very simplistic ratios to gauge reserve adequacy.

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 December 31, 2020, for Worldwide, U.S. hurricane and California earthquake events, based on our in-force portfolio at October 1, 2020 and reflecting the April 1, 2020 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 $2,725 million (or 4.6 percent of our total shareholders' equity at December 31, 2020). 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	$ 1,880	3.2 %	$ 1,099	1.8 %	$ 142	0.2 %
1-in-100	$ 3,982	6.7 %	$ 2,725	4.6 %	$ 1,302	2.2 %
1-in-250	$ 6,604	11.1 %	$ 4,918	8.3 %	$ 1,475	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 excludes 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, 2020 through March 31, 2021, with no material changes in coverage from 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, 2020 through March 31, 2021 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 – $2.15 billion	All natural perils and terrorism	(c)
United States (excluding Alaska and Hawaii)	$2.15 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 – $1.175 billion	All natural perils and terrorism	(c)
Alaska, Hawaii, and Canada	$1.175 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.

Political Risk and Credit Insurance

Political risk insurance is a specialized coverage that provides clients with protection against unexpected, catastrophic political or macroeconomic events, primarily in emerging markets. We participate in this market through our Bermuda based wholly-owned subsidiary Sovereign Risk Insurance Ltd. (Sovereign), and through a unit of our London-based CGM operation. Chubb is one of the world's leading underwriters of political risk and credit insurance, has a global portfolio spread across more than 150 countries and is also a member of The Berne Union. Our clients include financial institutions, national export credit agencies, leading multilateral agencies, private equity firms and multinational corporations. CGM writes political risk and credit insurance business out of underwriting offices in London, United Kingdom; Hamburg, Germany; Sao Paulo, Brazil; Singapore; Tokyo, Japan; and in the U.S. in the following locations: Chicago, New York, Los Angeles and Washington, D.C.

Our political risk insurance products provide protection to commercial lenders against defaults on cross border loans, covers investors against equity losses, and protects exporters against defaults on contracts. Commercial lenders, our largest client segment, are covered for missed scheduled loan repayments due to acts of confiscation, expropriation or nationalization by the host government, currency inconvertibility or exchange transfer restrictions, or war or other acts of political violence. In addition, in the case of loans to government-owned entities or loans that have a government guarantee, political risk policies cover scheduled payments against risks of non-payment or non-honoring of government guarantees. Private equity investors and corporations cover their equity investments against financial losses, such as expropriatory events, inability to repatriate dividends, and physical damage to their operations caused by covered political risk events. Our export contracts product provides coverage for both exporters and their financing banks against the risk of contract frustration due to government actions, including non-payment by governmental entities.

CGM's credit insurance businesses cover losses due to insolvency, protracted default, and political risk perils including export and license cancellation. Our credit insurance product provides coverage to larger companies that have sophisticated credit risk management systems, with exposure to multiple customers and that have the ability to self-insure losses up to a certain level through excess of loss coverage. It also provides coverage to trade finance banks, exporters, and trading companies, with exposure to trade-related financing instruments. CGM also has limited capacity for Specialist Credit insurance products which provide coverage for project finance and working capital loans for large corporations and banks.

We have implemented structural features in our policies in order to control potential losses within the political risk and credit insurance businesses. These include basic loss sharing features such as co-insurance and deductibles, and in the case of trade credit, the use of non-qualifying losses that drop smaller exposures deemed too difficult to assess. Ultimate loss severity is also limited by using waiting periods to enable the insurer and insured to mitigate losses and to agree on recovery strategies if a claim does materialize. We have the option to pay claims over the original loan repayment schedule, rather than in a lump sum, in order to provide insureds and the insurer additional time to remedy problems and work towards full recoveries. It is important to note that political risk and credit policies are named peril conditional insurance contracts, not financial guarantees, and claims are only paid after conditions and warranties are fulfilled. Political risk and credit insurance policies do not cover currency devaluations, bond defaults, movements in overseas equity markets, transactions deemed illegal, situations where corruption or misrepresentation has occurred, or debt that is not legally enforceable. In addition to assessing and mitigating potential exposure on a policy-by-policy basis, we also have specific risk management measures in place to manage overall exposure and risk. These measures include placing country, credit, and individual transaction limits based on country risk and credit ratings, combined single loss limits on multi-country policies, the use of quota share and excess of loss reinsurance protection as well as quarterly modeling and stress-testing of the portfolio. We have a dedicated Country and Credit Risk management team that are responsible for the portfolio.

Crop Insurance

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

The MPCI program, offered in conjunction with the U.S. Department of Agriculture's Risk Management Agency (RMA), is a federal subsidized insurance program that covers revenue shortfalls or production losses due to natural causes such as drought, excessive moisture, hail, wind, freeze, insects, and disease. These revenue products are defined as providing both commodity price and yield coverages. Policies are available for various crops in different areas of the U.S. and generally have deductibles generally ranging from 10 percent to 50 percent of the insured's risk. The USDA's Risk Management Agency (RMA) sets the policy terms and conditions, rates and forms, and is also responsible for setting compliance standards. As a participant in the MPCI program, we report all details of policies to the RMA and are party to a Standard Reinsurance Agreement (SRA). The SRA sets out the relationship between private insurance companies and the Federal Crop Insurance Corporation (FCIC) concerning the terms and conditions regarding the risks each will bear including the pro-rata and state stop-loss provisions, which allows companies to limit the exposure of any one state or group of states on their underwriting results. In addition to the pro-rata and excess of loss reinsurance protections inherent in the SRA, we also purchase third-party proportional and stop-loss reinsurance

for our MPCI business to reduce our exposure. We may also enter into crop derivative contracts to further manage our risk exposure.

Each year the RMA issues a final SRA for the subsequent reinsurance year (i.e., the 2021 SRA covers the 2021 reinsurance year from July 1, 2020 through June 30, 2021). There were no significant changes in the terms and conditions from the 2020 SRA and therefore, the new SRA does not impact Chubb's outlook on the crop program relative to 2021.

We recognize net premiums written as soon as estimable on our MPCI business, which is generally when we receive acreage reports from the policyholders on the various crops throughout the U.S. This allows us to best determine the premium associated with the liability that is being planted. The MPCI program has specific timeframes as to when producers must report acreage to us and in certain cases, the reporting occurs after the close of the respective reinsurance year. Once the net premium written has been recorded, the premium is then earned over the growing season for the crops. A majority of the crops that are covered in the program are typically subject to the SRA in effect at the beginning of the year. Given the major crops covered in the program, we typically see a substantial written and earned premium impact in the second and third quarters.

The pricing of MPCI premium is determined using a number of factors including commodity prices and related volatility (i.e., both impact the amount of premium we can charge to the policyholder). For example, in most states, the pricing for the MPCI revenue product for corn (i.e., insurance coverage for lower than expected crop revenue in a given season) includes a factor based on the average commodity price in February. If corn commodity prices are higher in February, compared to the February price in the prior year, and all other factors are the same, the increase in price will increase the corn premium year-over-year. Pricing is also impacted by volatility factors, which measure the likelihood commodity prices will fluctuate over the crop year. For example, if volatility is set at a higher rate compared to the prior year, and all other factors are the same, the premium charged to the policyholder will be higher year-over-year for the same level of coverage.

Losses incurred on the MPCI business are determined using both commodity price and crop yield. With respect to commodity price, there are two important periods on a large portion of the business: The month of February when the initial premium base is set, and the month of October when the final harvest price is set. If the price declines from February to October, with yield remaining at normal levels, the policyholder may be eligible to recover on the policy. However, in most cases there are deductibles on these policies, therefore, the impact of a decline in price would have to exceed the deductible before a policyholder would be eligible to recover.

We evaluate our MPCI business at an aggregate level and the combination of all of our insured crops (both winter and summer) go into our underwriting gain or loss estimate in any given year. Typically, we do not have enough information on the harvest prices or crop yield outputs to quantify the preliminary estimated impact to our underwriting results until the fourth quarter.

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

Liquidity

Liquidity is a measure of a company's ability to generate cash flows sufficient to meet short-term and long-term cash requirements. As a holding company, Chubb Limited possesses assets that consist primarily of the stock of its subsidiaries and other investments. In addition to net investment income, Chubb Limited's cash flows depend primarily on dividends and other statutorily permissible payments. Historically, dividends and other statutorily permitted payments have come primarily from Chubb's Bermuda-based operating subsidiaries, which we refer to as our Bermuda subsidiaries. Our consolidated sources of funds consist primarily of net premiums written, fees, net investment income, and proceeds from sales and maturities of investments. Funds are used at our various companies primarily to pay claims, operating expenses, and dividends; to service debt; to purchase investments; and to fund acquisitions.

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. Should the need arise, we generally have access to capital

markets and available credit facilities. Refer to "Credit Facilities" below for additional information. Our access to funds under the existing credit facility is dependent on the ability of the bank that is a party to the facility to meet its funding commitments. Should our existing credit provider experience financial difficulty, we may be required to replace credit sources, possibly in a difficult market. If we cannot obtain adequate capital or sources of credit on favorable terms, on a timely basis, or at all, our business, operating results, and financial condition could be adversely affected. To date, we have not experienced difficulty accessing our credit facility.

To further ensure the sufficiency of funds to settle unforeseen claims, we hold certain invested assets in cash and short-term investments. In addition, for certain insurance, reinsurance, or deposit contracts that tend to have relatively large and reasonably predictable cash outflows, we attempt to establish dedicated portfolios of assets that are duration-matched with the related liabilities. With respect to the duration of our overall investment portfolio, we manage asset durations to both maximize return given current market conditions and provide sufficient liquidity to cover future loss payments. At December 31, 2020, the average duration of our fixed maturities (4.0 years) is less than the average expected duration of our insurance liabilities (4.7 years).

Despite our safeguards, if paid losses accelerate beyond our ability to fund such paid losses from current operating cash flows, we might need to either liquidate a portion of our investment portfolio or arrange for financing. Potential events causing such a liquidity strain could include several significant catastrophes occurring in a relatively short period of time, large uncollectible reinsurance recoverables on paid losses (as a result of coverage disputes, reinsurers' credit problems, or decreases in the value of collateral supporting reinsurance recoverables) or increases in collateral postings under our variable annuity reinsurance business. Because each subsidiary focuses on a more limited number of specific product lines than is collectively available from the Chubb Group of Companies, the mix of business tends to be less diverse at the subsidiary level. As a result, the probability of a liquidity strain, as described above, may be greater for individual subsidiaries than when liquidity is assessed on a consolidated basis. If such a liquidity strain were to occur in a subsidiary, we could be required to liquidate a portion of our investments, potentially at distressed prices, as well as be required to contribute capital to the particular subsidiary and/or curtail dividends from the subsidiary to support holding company operations.

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 2020, 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 $1.9 billion and $200 million from its Bermuda subsidiaries in 2020 and 2019, respectively. Chubb Limited also received cash dividends of $110 million and non-cash dividends of $734 million from a Swiss subsidiary in 2020. There were no dividends received in 2019.

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. Chubb Limited received no dividends from CGM in 2020 and 2019.

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 Chubb INA in 2020 and 2019. Debt issued by Chubb INA is serviced by statutorily permissible distributions by Chubb INA's insurance subsidiaries to Chubb INA as well as other group resources. Chubb INA received dividends of $1.2 billion and $3.7 billion from its subsidiaries in 2020 and 2019, respectively. At December 31, 2020, the amount of dividends available to be paid to Chubb INA in 2021 from its subsidiaries without prior approval of insurance regulatory authorities totals $2.7 billion.

Cash Flows

Our insurance and reinsurance operations provide liquidity in that premiums are received in advance, sometimes substantially in advance, of the time claims are paid. Generally, cash flows are affected by claim payments that, due to the nature of our operations, may comprise large loss payments on a limited number of claims and which can fluctuate significantly from period to period. The irregular timing of these loss payments can create significant variations in cash flows from operations between periods. Refer to "Contractual Obligations and Commitments" for our estimate of future claim payments by period. Sources of liquidity include cash from operations, routine sales of investments, and financing arrangements. The following is a discussion of our cash flows for 2020, 2019, and 2018.

Operating cash flows reflect Net income for each period, adjusted for non-cash items and changes in working capital.

Operating cash flows were $9.8 billion in 2020, compared to $6.3 billion and $5.5 billion in 2019 and 2018, respectively. Operating cash flow increased $3.5 billion in 2020 compared to 2019, principally reflecting higher premiums collected and reduced payment activity due to the economic slowdown related to COVID-19 pandemic.

Cash used for investing was $7.5 billion in 2020, compared to $5.9 billion and $2.9 billion in 2019 and 2018, respectively. The current year included payment, including a deposit, of $1.6 billion for the purchase of an additional 16.2 percent ownership in Huatai Group. This compares to the prior year purchase of an additional 10.9 percent ownership interest in Huatai Group for $580 million. Refer to Note 2 to the Consolidated Financial Statements for additional information. In addition, the current year included higher private equity contributions, net of distributions received, of $1.1 billion.

Cash used for financing was $2.1 billion in 2020, compared to $151 million and $2.0 billion in 2019 and 2018, respectively. Cash used for financing was higher by $1.9 billion in 2020 compared to 2019 primarily due to lower net proceeds from the issuance of long-term debt (net of repayments) of $2.6 billion, partially offset by fewer shares repurchased in the current year. Refer to Note 11 to the Consolidated Financial Statements for additional information on share repurchases.

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 December 31, 2020, there were $1.4 billion in repurchase agreements outstanding with various maturities over the next eight months.

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. In each program, participating Chubb entities establish deposit accounts in different currencies with the bank provider. Each day the credit or debit balances in every account are notionally translated into a single currency (U.S. dollars) and then notionally pooled. The bank extends overdraft credit to all participating Chubb entities as needed, provided that the overall notionally pooled balance of all accounts in each pool at the end of each day is at least zero. Actual cash balances are not physically converted and are not commingled between legal entities. Chubb entities may incur overdraft balances as a means to address short-term liquidity needs. Any overdraft balances incurred under this program by a Chubb entity would be guaranteed by Chubb Limited (up to $300 million in the aggregate). Our syndicated letter of credit facility allows for same day drawings to fund a net pool overdraft should participating Chubb entities withdraw contributed funds from the pool.

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 percentages)	December 31 2020	December 31 2019
Short-term debt	$ —	$ 1,299
Long-term debt	**14,948**	13,559
Total financial debt	**14,948**	14,858
Trust preferred securities	**308**	308
Total shareholders' equity	**59,441**	55,331
Total capitalization	**$ 74,697**	$ 70,497
Ratio of financial debt to total capitalization	**20.0 %**	21.1 %
Ratio of financial debt plus trust preferred securities to total capitalization	**20.4 %**	21.5 %

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.

On September 17, 2020, Chubb INA issued $1.0 billion of 1.375 percent senior notes due September 2030. Chubb INA's $1.3 billion of 2.3 percent senior notes due November 2020 was paid upon maturity. Refer to Note 9 to the Consolidated Financial Statements for details about the debt issued and debt redeemed.

We believe our financial strength provides us with the flexibility and capacity to obtain available funds externally through debt or equity financing on both a short-term and long-term basis. Our ability to access the capital markets is dependent on, among other things, market conditions and our perceived financial strength. We have accessed both the debt and equity markets from time to time. 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. In October 2018, we filed an unlimited shelf registration which allows us to issue certain classes of debt and equity. This shelf registration expires in October 2021.

Securities Repurchases

From time to time, we repurchase shares as part of our capital management program. The Board of Directors (Board) has authorized share repurchase programs as follows:

- $1.0 billion of Chubb Common Shares from January 1, 2018 through December 31, 2018
- $1.5 billion of Chubb Common Shares from December 1, 2018 through December 31, 2019
- $1.5 billion of Chubb Common Shares from November 21, 2019 through December 31, 2020
- $1.5 billion of Chubb Common Shares from November 19, 2020 through December 31, 2021

Subsequently, 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.

Share repurchases may be made in the open market, in privately negotiated transactions, block trades, accelerated repurchases and/or through option or other forward transactions. In 2020, 2019, and 2018 we repurchased $516 million, $1.53 billion, and $1.02 billion, respectively, of Common Shares in a series of open market transactions under the Board share repurchase authorizations. On April 22, 2020, we suspended share repurchases, given the economic environment and to preserve capital for both risk and opportunity. Subsequently we announced and then resumed share repurchases on October 29, 2020. The $1.5 billion November 2019 authorization remained effective through December 31, 2020. Repurchases through December 31, 2020 were made under this authorization. For the period January 1 through February 24, 2021, we repurchased 1,971,000 Common Shares for a total of $327 million in a series of open market transactions under the share repurchase program authorized in November 2020. At February 24, 2021, $2.17 billion in share repurchase authorization remained through December 31, 2021.

Common Shares
Our Common Shares had a par value of CHF 24.15 each at December 31, 2020.

As of December 31, 2020, there were 26,872,639 Common Shares in treasury with a weighted average cost of $135.58 per share.

Under Swiss law, dividends must be stated in Swiss francs though dividend payments are made by Chubb in U.S. dollars.

At our May 2019 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.00 per share, which was paid in four quarterly installments of $0.75 per share at dates determined by the Board after the annual general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment.

At our May 2020 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.12 per share, expected to be paid in four quarterly installments of $0.78 per share after the annual general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment. The Board will determine the record and payment dates at which the annual dividend may be paid until the date of the 2021 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion. The first three quarterly installments each of $0.78 per share, have been distributed by the Board as expected.

Dividend distributions on Common Shares amounted to CHF 2.89 ($3.09) per share for the year ended December 31, 2020. Refer to Note 11 to the Consolidated Financial Statements for additional information on our dividends.

Contractual Obligations and Commitments

The following table presents our future payments due by period under contractual obligations at December 31, 2020:

		Payments Due By Period			
(in millions of U.S. dollars)	Total	2021	2022 and 2023	2024 and 2025	Thereafter
Payment amounts determinable from the respective contracts					
Deposit liabilities [1]	$ 2,323	$ 34	$ 104	$ 148	$ 2,037
Purchase obligations [2]	470	240	230	—	—
Investments, including Limited Partnerships [3]	3,805	1,429	1,713	459	204
Operating leases	550	150	219	106	75
Repurchase agreements	1,405	1,405	—	—	—
Long-term debt [4]	14,705	—	1,475	2,346	10,884
Trust preferred securities	309	—	—	—	309
Interest on debt obligations [4]	5,925	468	902	804	3,751
Total obligations in which payment amounts are determinable from the respective contracts	29,492	3,726	4,643	3,863	17,260
Payment amounts not determinable from the respective contracts					
Estimated gross loss payments under insurance and reinsurance contracts	67,851	19,587	18,599	9,439	20,226
Estimated payments for future policy benefits and GLB	22,006	1,034	2,183	1,653	17,136
Total contractual obligations and commitments	$ 119,349	$ 24,347	$ 25,425	$ 14,955	$ 54,622

1 Refer to Note 1 k) to the Consolidated Financial Statements.

2 Primarily comprises agreements with vendors to purchase system software administration and maintenance services, and audit fees

3 Funding commitment primarily related to limited partnerships. The timing of the payments of these commitments is uncertain and may differ from the estimated timing in the table.

4 Subject to foreign exchange fluctuations on interest expense and principal.

The contractual obligations and commitments table excludes the following items:

- Pension obligations: Minimum funding requirements for our pension obligations are immaterial. Subsequent funding commitments are apt to vary due to many factors and are difficult to estimate at this time. Refer to Note 13 to the Consolidated Financial Statements for additional information.
- Liabilities for unrecognized tax benefits: The liability for unrecognized tax benefits, excluding interest and offsetting tax credits, was $76 million at December 31, 2020. At December 31, 2020, we had accrued $16 million in liabilities for income tax-related interest and penalties in our Consolidated balance sheet. Other than settlement of a liability in January 2021 for $23 million, including interest, we are unable to make a reliable estimate for the timing of cash settlement of these liabilities. Refer to Note 8 to the Consolidated Financial Statements for additional information.

We have no other significant contractual obligations or commitments not reflected in the table above. We do not have any off-balance sheet arrangements that are reasonably likely to have a material effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources.

Estimated gross loss payments under insurance and reinsurance contracts
We are obligated to pay claims under insurance and reinsurance contracts for specified loss events covered under those contracts. Such loss payments represent our most significant future payment obligation as a P&C insurance and reinsurance company. In contrast to other contractual obligations, cash payments are not determinable from the terms specified within the contract. For example, we do not ultimately make a payment to our counterparty for many insurance and reinsurance contracts (i.e., when a loss event has not occurred) and if a payment is to be made, the amount and timing cannot be determined from the contract. In the table above, we estimate payments by period relating to our gross liability for unpaid losses and loss expenses included in the Consolidated balance sheet at December 31, 2020, and do not take into account reinsurance recoverable. These estimated loss payments are inherently uncertain and the amount and timing of actual loss payments are likely to differ from these estimates and the differences could be material. Given the numerous factors and assumptions involved in both estimates of loss and loss expense reserves and related estimates as to the timing of future loss and loss expense payments in the table above, differences between actual and estimated loss payments will not necessarily indicate a commensurate change in ultimate loss estimates. The liability for Unpaid losses and loss expenses presented in our balance sheet is discounted for 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. Accordingly, the estimated amounts in the table exceed the liability for Unpaid losses and loss expenses presented in our balance sheet. Refer to Note 1 h) to the Consolidated Financial Statements for additional information.

Estimated payments for future policy benefits
We establish reserves for future policy benefits for life, long-term health, and annuity contracts. The amounts in the table are gross of fees or premiums due from the underlying contracts. The liability for Future policy benefits for life, long-term health, and annuity contracts presented in our balance sheet is discounted and reflected net of fees or premiums due from the underlying contracts. Accordingly, the estimated amounts in the table exceed the liability for Future policy benefits presented in our balance sheet. Payment amounts related to these reserves must be estimated and are not determinable from the contract. Due to the uncertainty with respect to the timing and amount of these payments, actual results could materially differ from the estimates in the table.

Credit Facilities

As our Bermuda subsidiaries are non-admitted insurers and reinsurers in the U.S., the terms of certain U.S. insurance and reinsurance contracts require them to provide collateral, which can be in the form of letters of credit (LOCs). LOCs may also be used for general corporate purposes.

Should the need arise, we generally have access to capital markets and to credit facilities with letter of credit capacity of $4.0 billion with a sub-limit of $1.9 billion for revolving credit. At December 31, 2020, our usage under these facilities was $1.7 billion in LOCs, of which $1.1 billion related to our variable annuity reinsurance program. 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. 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 or establishing additional facilities when needed.

In the event we are required to provide alternative security to clients, the security could take the form of additional insurance trusts supported by our investment portfolio or funds withheld using our cash resources. The value of LOCs required is driven by, among other things, statutory liabilities reported by variable annuity guarantee reinsurance clients, loss development of existing reserves, the payment pattern of such reserves, the expansion of business, and loss experience of such business.

The facilities noted above require that we maintain certain financial covenants, all of which have been met at December 31, 2020. These covenants include:

(i) a minimum consolidated net worth of not less than $34.985 billion; and
(ii) a ratio of consolidated debt to total capitalization of not greater than 0.35 to 1.

At December 31, 2020, (a) the minimum consolidated net worth requirement under the covenant described in (i) above was $34.985 billion and our actual consolidated net worth as calculated under that covenant was $56.6 billion and (b) our ratio of debt to total capitalization, as calculated under the covenant which excludes the fair value adjustment of debt acquired through the Chubb Corp acquisition, was 0.20 to 1, which is below the maximum debt to total capitalization ratio of 0.35 to 1 as described in (ii) above.

Our failure to comply with the covenants under any credit facility would, subject to grace periods in the case of certain covenants, result in an event of default. This could require us to repay any outstanding borrowings or to cash collateralize LOCs under such facility. Our failure to repay material financial obligations, as well as our failure with respect to certain other events expressly identified, would result in an event of default under the facility.

Ratings

Chubb Limited and its subsidiaries are assigned credit and financial strength (insurance) ratings from internationally recognized rating agencies, including S&P, A.M. Best, Moody's, and Fitch. The ratings issued on our companies by these agencies are announced publicly and are available directly from the agencies. Our Internet site (investors.chubb.com, under Shareholder Resources/Rating Agency Ratings) also contains some information about our ratings, but such information on our website is not incorporated by reference into this report.

Financial strength ratings reflect the rating agencies' opinions of a company's claims paying ability. Independent ratings are one of the important factors that establish our competitive position in the insurance markets. The rating agencies consider many factors in determining the financial strength rating of an insurance company, including the relative level of statutory surplus necessary to support the business operations of the company. These ratings are based upon factors relevant to policyholders, agents, and intermediaries and are not directed toward the protection of investors. Such ratings are not recommendations to buy, sell, or hold securities.

Credit ratings assess a company's ability to make timely payments of principal and interest on its debt. It is possible that, in the future, one or more of the rating agencies may reduce our existing ratings. If one or more of our ratings were downgraded, we could incur higher borrowing costs, and our ability to access the capital markets could be impacted. In addition, our insurance and reinsurance operations could be adversely impacted by a downgrade in our financial strength ratings, including a possible reduction in demand for our products in certain markets. Also, we have insurance and reinsurance contracts which contain rating triggers. In the event the S&P or A.M. Best financial strength ratings of Chubb fall, we may be faced with the cancellation of premium or be required to post collateral on our underlying obligation associated with this premium. We estimate that at December 31, 2020, a one-notch downgrade of our S&P or A.M. Best financial strength ratings would result in an immaterial loss of premium or requirement for collateral to be posted.

ITEM 7A. Quantitative and Qualitative Disclosures about Market Risk

Market Sensitive Instruments and Risk Management

Market risk represents the potential for loss due to adverse changes in the fair value of financial instruments. We are exposed to potential losses from various market risks including changes in interest rates, equity prices, and foreign currency exchange rates. Further, through writing the GLB and GMDB products, we are exposed to volatility in the equity and credit markets, as well as interest rates. Our investment portfolio consists primarily of fixed income securities, denominated in both U.S. dollars and foreign currencies, which are sensitive to changes in interest rates and foreign currency exchange rates. The majority of our fixed income portfolio is classified as available for sale. 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 allowance for expected credit losses Changes in interest rates and foreign currency exchange rates will have an immediate effect on Shareholders' equity and Comprehensive income and in certain instances, Net income. From time to time, we also use derivative instruments such as futures, options, swaps, and foreign currency forward contracts to manage the duration of our investment portfolio and foreign currency exposures and also to obtain exposure to a particular financial market. At December 31, 2020 and 2019, our notional exposure to derivative instruments was $5.3 billion and $4.9 billion, respectively. These instruments are recognized as assets or liabilities in our Consolidated Financial Statements and are sensitive to changes in interest rates, foreign currency exchange rates, and equity security prices. As part of our investing activities, from time to time we purchase to be announced mortgage backed securities (TBAs). Changes in the fair value of TBAs are included in Net realized gains (losses) and therefore, have an immediate effect on both our Net income and Shareholders' equity.

We seek to mitigate market risk using a number of techniques, including maintaining and managing the assets and liabilities of our international operations consistent with the foreign currencies of the underlying insurance and reinsurance businesses, thereby limiting exchange rate risk to net assets denominated in foreign currencies.

The following is a discussion of our primary market risk exposures at December 31, 2020. Our policies to address these risks in 2020 were not materially different from 2019. We do not currently anticipate significant changes in our primary market risk exposures or in how those exposures are managed in future reporting periods based upon what is known or expected to be in effect in future reporting periods.

Interest rate risk – fixed income portfolio and debt obligations

Our fixed income portfolio and debt obligations have exposure to interest rate risk. Changes in investment values attributable to interest rate changes are mitigated by corresponding and partially offsetting changes in the economic value of our insurance reserves and debt obligations. We monitor this exposure through periodic reviews of our asset and liability positions.

The following table presents the impact at December 31, 2020 and 2019, on the fair value of our fixed income portfolio of a hypothetical increase in interest rates of 100 bps applied instantly across the U.S. yield curve (an immediate time horizon was used as this presents the worst case scenario):

(in billions of U.S. dollars, except for percentages)	2020	2019
Fair value of fixed income portfolio	**$ 107.6**	$ 102.8
Pre-tax impact of 100 bps increase in interest rates:		
Decrease in dollars	**$ 4.3**	$ 3.9
As a percentage of total fixed income portfolio at fair value	**4.0 %**	3.8 %

Changes in interest rates will have an immediate effect on Comprehensive income and Shareholders' equity but will not ordinarily have an immediate effect on Net income. Variations in market interest rates could produce significant changes in the timing of prepayments due to available prepayment options. For these reasons, actual results could differ from those reflected in the tables.

Although our debt and trust preferred securities (collectively referred to as debt obligations) are reported at amortized cost and not adjusted for fair value changes, changes in interest rates could have a material impact on their fair value, albeit there would be no impact on our Consolidated Financial Statements.

The following table presents the impact at December 31, 2020 and 2019, on the fair value of our debt obligations of a hypothetical decrease in interest rates of 100 bps applied instantly across the U.S. yield curve (an immediate time horizon was used as this presents the worst case scenario):

(in millions of U.S. dollars, except for percentages)	2020	2019
Fair value of debt obligations, including repurchase agreements	**$ 19,365**	$ 18,238
Pre-tax impact of 100 bps decrease in interest rates:		
Increase in dollars	**$ 1,673**	$ 1,570
As a percentage of total debt obligations at fair value	**8.6 %**	8.6 %

Foreign currency management

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

The following table summarizes the net assets (liabilities) in non-U.S. currencies at December 31, 2020 and 2019:

	2020		2019		2020 vs. 2019
(in millions of U.S. dollars, except for percentages)	**Value of net assets (liabilities)**	**Exchange rate per USD**	Value of net assets (liabilities)	Exchange rate per USD	% change in exchange rate per USD
Chinese yuan renminbi (CNY)	**$ 2,853**	**0.1532**	$ 1,539	0.1436	6.7 %
Canadian dollar (CAD)	**2,613**	**0.7858**	2,220	0.7698	2.1 %
British pound sterling (GBP)	**2,492**	**1.3670**	2,024	1.3257	3.1 %
Australian dollar (AUD)	**1,347**	**0.7694**	1,100	0.7021	9.6 %
Mexican peso (MXN)	**877**	**0.0502**	942	0.0528	(5.0)%
Korean won (KRW) (x100)	**781**	**0.0920**	788	0.0865	6.4 %
Brazilian real (BRL)	**747**	**0.1926**	990	0.2485	(22.5)%
Japanese yen (JPY)	**617**	**0.0097**	432	0.0092	5.2 %
Thai baht (THB)	**565**	**0.0334**	606	0.0337	(0.8)%
Euro (EUR) [1]	**(3,162)**	**1.2216**	(3,129)	1.1213	8.9 %
Other foreign currencies	**3,016**	**various**	2,845	various	NM
Value of net assets denominated in foreign currencies [2]	**$ 12,746**		$ 10,357		
As a percentage of total net assets	**21.4 %**		18.7 %		
Pre-tax decrease to Shareholders' equity of a hypothetical 10 percent strengthening of the USD	**$ 1,159**		$ 942		

NM – not meaningful

[1] *Comprised Euro denominated debt of $5.2 billion, partially offset by net assets of $2.1 billion at December 31, 2020 and Euro denominated debt of $4.8 billion, partially offset by net assets of $1.7 billion at December 31, 2019.*

[2] At December 31, 2020, net assets denominated in foreign currencies comprised approximately 46 percent goodwill and other intangible assets.

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 December 31, 2020 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: 75 percent—85 percent U.S. equity, and 15 percent—25 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 December 31, 2020 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 first quarter 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	$ 416	$ 277	$ 113	$ (81)	$ (315)	$ (603)
	Increase/(decrease) in hedge value	(73)	—	73	145	218	290
	Increase/(decrease) in net income	$ 343	$ 277	$ 186	$ 64	$ (97)	$ (313)
Flat	(Increase)/decrease in FVL	$ 160	$ —	$ (188)	$ (408)	$ (672)	$ (995)
	Increase/(decrease) in hedge value	(73)	—	73	145	218	290
	Increase/(decrease) in net income	$ 87	$ —	$ (115)	$ (263)	$ (454)	$ (705)
-100 bps	(Increase)/decrease in FVL	$ (111)	$ (291)	$ (501)	$ (749)	$(1,050)	$ (1,412)
	Increase/(decrease) in hedge value	(73)	—	73	145	218	290
	Increase/(decrease) in net income	$ (184)	$ (291)	$ (428)	$ (604)	$ (832)	$ (1,122)

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	$ 86	$ (97)	$ —	$ —	$ (13)	$ 13
Increase/(decrease) in net income	$ 86	$ (97)	$ —	$ —	$ (13)	$ 13

Sensitivities to Actuarial Assumptions	Mortality			
(in millions of U.S. dollars)	+20 %	+10 %	-10 %	-20%
(Increase)/decrease in FVL	$ 24	$ 12	$ (12)	$ (25)
Increase/(decrease) in net income	$ 24	$ 12	$ (12)	$ (25)

	Lapses			
(in millions of U.S. dollars)	+50 %	+25 %	-25 %	-50%
(Increase)/decrease in FVL	$ 139	$ 73	$ (81)	$ (170)
Increase/(decrease) in net income	$ 139	$ 73	$ (81)	$ (170)

	Annuitization			
(in millions of U.S. dollars)	+50 %	+25 %	-25 %	-50%
(Increase)/decrease in FVL	$ (492)	$ (263)	$ 302	$ 636
Increase/(decrease) in net income	$ (492)	$ (263)	$ 302	$ 636

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 December 31, 2020 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	$ 272	$ 257	$ 328	$ 699	$ 815	$ 703
Claims at 100% immediate mortality	157	166	179	166	147	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	$ 871	$ 1,249	$ 1,811	$ 2,415	$ 2,906	$ 3,266

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	$ 37	$ 45	$ 55	$ 67	$ 79	$ 89
GLB net amount at risk	309	409	542	704	873	982
Claims at 100% immediate mortality	36	35	35	35	35	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 8. Financial Statements and Supplementary Data

The financial statements and supplementary data are included in this Form 10-K commencing on page F-1.

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

ITEM 9A. 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 December 31, 2020. 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 December 31, 2020 that have materially affected, or are reasonably likely to materially affect, Chubb's internal controls over financial reporting. Chubb's management report on internal control over financial reporting is included on page F-3 and PricewaterhouseCoopers LLP's audit report is included on pages F-4, F-5, and F-6.

ITEM 9B. Other Information

Item not applicable.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

Information pertaining to this item is incorporated by reference to the sections entitled "Agenda Item 5 - Election of the Board of Directors", "Corporate Governance - The Board of Directors - Director Nomination Process", and "Corporate Governance - The Committees of the Board - Audit Committee" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A. Also incorporated herein by reference is the text under the caption "Information about our Executive Officers" appearing at the end of Part I Item 1 of the Annual Report on Form 10-K.

Code of Ethics

Chubb has adopted a Code of Conduct, which sets forth standards by which all Chubb employees, officers, and directors must abide as they work for Chubb. Chubb has posted this Code of Conduct on its Internet site (investors.chubb.com, under Corporate Governance/Highlights and Governance Documents/The Chubb Code of Conduct). Chubb intends to disclose on its Internet site any amendments to, or waivers from, its Code of Conduct that are required to be publicly disclosed pursuant to the rules of the SEC or the New York Stock Exchange.

ITEM 11. Executive Compensation

This item is incorporated by reference to the sections entitled "Executive Compensation", "Compensation Committee Report" and "Director Compensation" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

This item is incorporated by reference to the sections entitled "Information About Our Share Ownership" and "Agenda Item 9 - Approval of the Chubb Limited 2016 Long-Term Incentive Plan, as Amended and Restated - Explanation - Authorized Securities under Equity Compensation Plans" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders, which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A.

ITEM 13. Certain Relationships and Related Transactions and Director Independence

This item is incorporated by reference to the sections entitled "Corporate Governance - What Is Our Related Party Transactions Approval Policy And What Procedures Do We Use To Implement It?", "Corporate Governance - What Related Party Transactions Do We Have?", and "Corporate Governance - The Board of Directors - Director Independence" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A.

ITEM 14. Principal Accounting Fees and Services

This item is incorporated by reference to the section entitled "Agenda Item 4 – Election of Auditors – 4.2 – Ratification of appointment of PricewaterhouseCoopers LLP (United States) as independent registered public accounting firm for purposes of U.S. securities law reporting" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A.

PART IV

ITEM 15. Exhibits, Financial Statement Schedules

(a) Financial Statements, Schedules, and Exhibits

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Other schedules have been omitted as they are not applicable to Chubb, or the required information has been included in the Consolidated Financial Statements and related notes.

3. Exhibits

		Incorporated by Reference			
Exhibit Number	Exhibit Description	Form	Original Number	Date Filed	Filed Herewith
3.1	Articles of Association of the Company, as amended and restated	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 and restated	8-K	4.1	August 4, 2020	
4.2	Organizational Regulations of the Company as amended	8-K	3.1	November 21, 2016	
4.3	Specimen share certificate representing Common Shares	8-K	4.3	July 18, 2008	
4.4	Indenture, dated March 15, 2002, between ACE Limited and Bank One Trust Company, N.A.	8-K	4.1	March 22, 2002	
4.5	Senior Indenture, dated August 1, 1999, among ACE INA Holdings, Inc., ACE Limited and Bank of New York Mellon Trust Company, N.A. (as successor), as trustee	S-3 ASR	4.4	December 10, 2014	
4.6	Indenture, dated November 30, 1999, among ACE INA Holdings, Inc. and Bank One Trust Company, N.A., as trustee	10-K	10.38	March 29, 2000	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
4.7	Indenture, dated December 1, 1999, among ACE INA Holdings, Inc., ACE Limited and Bank One Trust Company, National Association, as trustee	10-K	10.41	March 29, 2000	
4.8	Amended and Restated Trust Agreement, dated March 31, 2000, among ACE INA Holdings, Inc., Bank One Trust Company, National Association, as property trustee, Bank One Delaware Inc., as Delaware trustee and the administrative trustees named therein	10-K	4.17	March 16, 2006	
4.9	Common Securities Guarantee Agreement, dated March 31, 2000	10-K	4.18	March 16, 2006	
4.10	Capital Securities Guarantee Agreement, dated March 31, 2000	10-K	4.19	March 16, 2006	
4.11	Form of 2.70 percent Senior Notes due 2023	8-K	4.1	March 13, 2013	
4.12	Form of 4.15 percent Senior Notes due 2043	8-K	4.2	March 13, 2013	
4.13	First Supplemental Indenture dated as of March 13, 2013 to the Indenture dated as of August 1, 1999 among ACE INA Holdings, Inc., as Issuer, ACE Limited, as Guarantor, and The Bank of New York Mellon Trust Company, N.A., as Successor Trustee	8-K	4.3	March 13, 2013	
4.14	Form of 3.35 percent Senior Notes due 2024	8-K	4.1	May 27, 2014	
4.15	Form of 3.150 percent Senior Notes due 2025	8-K	4.1	March 16, 2015	
4.16	Form of 2.875 percent Senior Notes due 2022	8-K	4.2	November 3, 2015	
4.17	Form of 3.35 percent Senior Notes due 2026	8-K	4.3	November 3, 2015	
4.18	Form of 4.35 percent Senior Notes due 2045	8-K	4.4	November 3, 2015	
4.19	First Supplemental Indenture to the Chubb Corp Senior Indenture dated as of January 15, 2016 to the Indenture dated as of October 25, 1989 among ACE INA Holdings, Inc., as Successor Issuer, ACE Limited, as Guarantor, and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.1	January 15, 2016	
4.20	Second Supplemental Indenture to the Chubb Corp Junior Subordinated Indenture dated as of January 15, 2016 to the Indenture dated as of March 29, 2007 among ACE INA Holdings, Inc., as Successor Issuer, ACE Limited, as Guarantor, and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.2	January 15, 2016	
4.21	Chubb Corp Senior Indenture (incorporated by reference to Exhibit 4(a) to Chubb Corp's Registration Statement on Form S-3 filed on October 27, 1989) (File No. 33-31796)	S-3	4(a)	October 27, 1989	
4.22	Chubb Corp Junior Subordinated Indenture (incorporated by reference to Exhibit 4.1 to Chubb Corp's Current Report on Form 8-K filed on March 30, 2007) (File No. 001-08661)	8-K	4.1	March 30, 2007	
4.23	First Supplemental Indenture to the Chubb Corp Junior Subordinated Indenture dated as of March 29, 2007 between the Chubb Corporation and The Bank of New York Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.2 to Chubb Corp's Current Report on Form 8-K filed on March 30, 2007) (File No. 001-08661)	8-K	4.2	March 30, 2007	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
4.24	Form of 6.80 percent Chubb Corp Debentures due 2031 (incorporated by reference to Exhibit 4(a) to Chubb Corp's Registration Statement on Form S-3 filed on October 27, 1989) (File No. 33-31796)	S-3	4(a)	October 27, 1989	
4.25	Form of 6.00 percent Chubb Corp Senior Notes due 2037 (incorporated by reference to Exhibit 4.1 to Chubb Corp's Current Report on Form 8-K filed on May 11, 2007) (File No. 001-08661)	8-K	4.1	May 11, 2007	
4.26	Form of 6.50 percent Chubb Corp Senior Notes due 2038 (incorporated by reference to Exhibit 4.2 to Chubb Corp's Current Report on Form 8-K filed on May 6, 2008) (File No. 001-08661)	8-K	4.2	May 6, 2008	
4.27	Form of debenture for the 6.375 percent Chubb Corp DISCs (incorporated by reference to Exhibit 4.3 to Chubb Corp's Current Report on Form 8-K filed on March 30, 2007) (File No. 001-08661)	8-K	4.3	March 30, 2007	
4.28	Procedures regarding the registration of shareholders in the share register of Chubb Limited	10-K	4.32	February 28, 2017	
4.29	Form of Officer's Certificate related to the 1.550% Senior Notes due 2028 and 2.500% Senior Notes due 2038	8-K	4.1	March 6, 2018	
4.30	Form of Global Note for the 1.550% Senior Notes due 2028	8-K	4.2	March 6, 2018	
4.31	Form of Global Note for the 2.500% Senior Notes due 2038	8-K	4.3	March 6, 2018	
4.32	Form of Officer's Certificate related to the 0.875% Senior Notes due 2027 and 1.400% Senior Notes due 2031	8-K	4.1	June 17, 2019	
4.33	Form of Global Note for the 0.875% Senior Notes due 2027	8-K	4.2	June 17, 2019	
4.34	Form of Global Note for the 1.400% Senior Notes due 2031	8-K	4.3	June 17, 2019	
4.35	Form of Officer's Certificate related to the 0.300% Senior Notes due 2024 and 0.875% Senior Notes due 2029	8-K	4.1	December 5, 2019	
4.36	Form of Global Note for the 0.300% Senior Notes due 2024	8-K	4.2	December 5, 2019	
4.37	Form of Global Note for the 0.875% Senior Notes due 2029	8-K	4.3	December 5, 2019	
4.38	Form of Officer's Certificate related to the 1.375% Senior Notes due 2030	8-K	4.1	September 17, 2020	
4.39	Form of Global Note for the 1.375% Senior Notes due 2030	8-K	4.2	September 17, 2020	
4.40	Description of the Registrant's Securities				X
10.1*	Form of Indemnification Agreement between the Company and the directors of the Company, dated August 13, 2015	10-K	10.1	February 26, 2016	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.2	Credit Agreement for $1,000,000,000 Senior Unsecured Letter of Credit Facility, dated as of November 6, 2012, among ACE Limited, and certain subsidiaries and Wells Fargo Bank, National Association as Administrative Agent, the Swingline Bank and an Issuing Bank	10-K	10.13	February 28, 2013	
10.3*	Employment Terms dated October 29, 2001, between ACE Limited and Evan Greenberg	10-K	10.64	March 27, 2003	
10.4*	Employment Terms dated November 2, 2001, between ACE Limited and Philip V. Bancroft	10-K	10.65	March 27, 2003	
10.5*	Executive Severance Agreement between ACE Limited and Philip Bancroft, effective January 2, 2002	10-Q	10.1	May 10, 2004	
10.6*	Letter Regarding Executive Severance between ACE Limited and Philip V. Bancroft	10-K	10.17	February 25, 2011	
10.7*	Employment Terms dated April 10, 2006, between ACE and John Keogh	10-K	10.29	February 29, 2008	
10.8*	Executive Severance Agreement between ACE and John Keogh	10-K	10.30	February 29, 2008	
10.9*	ACE Limited Executive Severance Plan as amended effective May 18, 2011	10-K	10.21	February 24, 2012	
10.10*	Form of employment agreement between the Company (or subsidiaries of the Company) and executive officers of the Company to allocate a percentage of aggregate salary to the Company (or subsidiaries of the Company)	8-K	10.1	July 16, 2008	
10.11*	Outside Directors Compensation Parameters	10-K	10.11	February 27, 2020	
10.12*	ACE Limited Elective Deferred Compensation Plan (as amended and restated effective January 1, 2005)	10-K	10.24	March 16, 2006	
10.13*	ACE USA Officer Deferred Compensation Plan (as amended through January 1, 2001)	10-K	10.25	March 16, 2006	
10.14*	ACE USA Officer Deferred Compensation Plan (as amended and restated effective January 1, 2011)	10-Q	10.7	October 30, 2013	
10.15*	ACE USA Officer Deferred Compensation Plan (as amended and restated effective January 1, 2009)	10-K	10.36	February 27, 2009	
10.16*	First Amendment to the Amended and Restated ACE USA Officers Deferred Compensation Plan	10-K	10.28	February 25, 2010	
10.17*	Form of Swiss Mandatory Retirement Benefit Agreement (for Swiss-employed named executive officers)	10-Q	10.2	May 7, 2010	
10.18*	ACE Limited Supplemental Retirement Plan (as amended and restated effective July 1, 2001)	10-Q	10.1	November 14, 2001	
10.19*	ACE Limited Supplemental Retirement Plan (as amended and restated effective January 1, 2011)	10-Q	10.6	October 30, 2013	
10.20*	Amendments to the ACE Limited Supplemental Retirement Plan and the ACE Limited Elective Deferred Compensation Plan	10-K	10.38	February 29, 2008	
10.21*	ACE Limited Elective Deferred Compensation Plan (as amended and restated effective January 1, 2009)	10-K	10.39	February 27, 2009	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.22*	ACE Limited Elective Deferred Compensation Plan (as amended and restated effective January 1, 2011)	10-Q	10.5	October 30, 2013	
10.23*	Deferred Compensation Plan amendments, effective January 1, 2009	10-K	10.40	February 27, 2009	
10.24*	Amendment to the ACE Limited Supplemental Retirement Plan	10-K	10.39	February 29, 2008	
10.25*	Amendment and restated ACE Limited Supplemental Retirement Plan, effective January 1, 2009	10 K	10.42	February 27, 2009	
10.26*	ACE USA Supplemental Employee Retirement Savings Plan (see exhibit 10.6 to Form 10-Q filed with the SEC on May 15, 2000)	10-Q	10.6	May 15, 2000	
10.27*	ACE USA Supplemental Employee Retirement Savings Plan (as amended through the Second Amendment)	10-K	10.30	March 1, 2007	
10.28*	ACE USA Supplemental Employee Retirement Savings Plan (as amended through the Third Amendment)	10-K	10.31	March 1, 2007	
10.29*	ACE USA Supplemental Employee Retirement Savings Plan (as amended and restated)	10-K	10.46	February 27, 2009	
10.30*	First Amendment to the Amended and Restated ACE USA Supplemental Employee Retirement Savings Plan	10-K	10.39	February 25, 2010	
10.31*	The ACE Limited 1995 Outside Directors Plan (as amended through the Seventh Amendment)	10-Q	10.1	August 14, 2003	
10.32*	ACE Limited 2004 Long-Term Incentive Plan (as amended through the Fifth Amendment)	8-K	10	May 21, 2010	
10.33*	ACE Limited 2004 Long-Term Incentive Plan (as amended through the Sixth Amendment)	8-K	10.1	May 20, 2013	
10.34*	ACE Limited Rules of the Approved U.K. Stock Option Program (see exhibit 10.2 to Form 10-Q filed with the SEC on February 13, 1998)	10-Q	10.2	February 13, 1998	
10.35*	Director Restricted Stock Award Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.1	November 9, 2009	
10.36*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	8-K	10.4	September 13, 2004	
10.37*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.4	May 8, 2008	
10.38*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-K	10.63	February 27, 2009	
10.39*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.3	October 30, 2013	
10.40*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	8-K	10.5	September 13, 2004	
10.41*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.3	May 8, 2008	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.42*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.4	October 30, 2013	
10.43*	Form of Restricted Stock Unit Award Terms (for outside directors) under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.2	November 7, 2007	
10.44*	Form of Restricted Stock Unit Award Terms (for outside directors) under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.2	August 7, 2009	
10.45*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan for Messrs. Greenberg and Cusumano	10-Q	10.1	August 4, 2011	
10.46*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan for Messrs. Greenberg and Cusumano	10-Q	10.2	August 4, 2011	
10.47*	ACE Limited Employee Stock Purchase Plan, as amended	8-K	10.1	May 22, 2012	
10.48*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.71	February 27, 2015	
10.49*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.72	February 27, 2015	
10.50*	Form of Executive Management Non-Competition Agreement	8-K	10.1	May 22, 2015	
10.51	Commitment Increase Agreement to increase the credit capacity under the Credit Agreement originally entered into on November 6, 2012 to $1,500,000,000 under the Senior Unsecured Letter of Credit Facility, dated as of December 11, 2015, among ACE Limited, and certain subsidiaries, and Wells Fargo Bank, National Association as Administrative Agent, the Swingline Bank and an Issuing Bank	10-K	10.72	February 26, 2016	
10.52*	Chubb Limited 2016 Long-Term Incentive Plan	S-8	4.4	May 26, 2016	
10.53*	Form of Incentive Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.2	August 5, 2016	
10.54*	Form of Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.3	August 5, 2016	
10.55*	Form of Restricted Stock Unit Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.4	August 5, 2016	
10.56*	Form of Non-Qualified Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.5	August 5, 2016	
10.57*	Form of Incentive Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-Q	10.6	August 5, 2016	
10.58*	Form of Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-Q	10.7	August 5, 2016	
10.59*	Form of Restricted Stock Unit Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-Q	10.8	August 5, 2016	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.60*	Form of Non-Qualified Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-Q	10.9	August 5, 2016	
10.61*	Chubb Limited Employee Stock Purchase Plan, as amended and restated	S-8	4.4	May 25, 2017	
10.62*	Director Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.1	August 3, 2017	
10.63	Amended and Restated Credit Agreement for $1,000,000 Senior Unsecured Letter of Credit Facility, dated as of October 25, 2017, among Chubb Limited, and certain subsidiaries and Wells Fargo Bank, National Association as Administrative Agent, the Swingline Bank and an Issuing Bank	10-K	10.88	February 23, 2018	
10.64*	Form of Incentive Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers	10-K	10.89	February 23, 2018	
10.65*	Form of Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers	10-K	10.90	February 23, 2018	
10.66*	Form of Non-Qualified Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers	10-K	10.92	February 23, 2018	
10.67*	Form of Restricted Stock Unit Award Terms under the Chubb Limited 2016 Long-Term Plan for Executive Officers	10-K	10.93	February 23, 2018	
10.68*	Form of Incentive Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.94	February 23, 2018	
10.69*	Form of Non-Qualified Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.95	February 23, 2018	
10.70*	Form of Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.96	February 23, 2018	
10.71*	Form of Restricted Stock Unit Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.97	February 23, 2018	
10.72*	Chubb Limited Clawback Policy	10-K	10.99	February 23, 2018	
10.73*	The Chubb Corporation Key Employee Deferred Compensation Plan (2005)	8-K	10.9	March 9, 2005	
10.74*	Amendment One to The Chubb Corporation Key Employee Deferred Compensation Plan (2005)	8-K	10.1	September 12, 2005	
10.75*	Amendment No. 2 to The Chubb Corporation Key Employee Deferred Compensation Plan (2005)	10-K	10.20	March 2, 2009	
10.76*	Amendment No. 3 to The Chubb Corporation Key Employee Deferred Compensation Plan (2005)	10-K	10.32	February 28, 2013	
10.77*	Pension Excess Benefit Plan of The Chubb Corporation				X
10.78*	Amendment No. 2 to the Pension Excess Benefit Plan of The Chubb Corporation				X
10.79*	Amendment No. 3 to the Pension Excess Benefit Plan of The Chubb Corporation				X

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.80*	Amendment No. 4 to the Pension Excess Benefit Plan of The Chubb Corporation				X
10.81*	Amendments to the Chubb U.S. Supplemental Employee Retirement Plan, the Chubb U.S. Deferred Compensation Plan, and Pension Excess Benefit Plan of The Chubb Corporation				X
10.82*	Form of Performance Based Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management				X
10.83*	Form of Performance Based Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers				X
21.1	Subsidiaries of the Company				X
22.1	Guaranteed Securities				X
23.1	Consent of Independent Registered Public Accounting Firm				X
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	The following financial information from Chubb Limited's Annual Report on Form 10-K for the year ended December 31, 2020, formatted in Inline XBRL: (i) Consolidated Balance Sheets at December 31, 2020 and 2019; (ii) Consolidated Statements of Operations and Comprehensive Income for the years ended December 31, 2020, 2019, and 2018; (iii) Consolidated Statements of Shareholders' Equity for the years ended December 31, 2020, 2019, and 2018; (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2020, 2019, and 2018; and (v) Notes to the Consolidated Financial Statements				X
104	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)				

* Management contract, compensatory plan or arrangement

ITEM 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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

By: /s/ Philip V. Bancroft
Philip V. Bancroft
Executive Vice President and Chief Financial Officer

February 25, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Evan G. Greenberg **Evan G. Greenberg**	Chairman, Chief Executive Officer, and Director	February 25, 2021
/s/ Philip V. Bancroft **Philip V. Bancroft**	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 25, 2021
/s/ Annmarie T. Hagan **Annmarie T. Hagan**	Chief Accounting Officer (Principal Accounting Officer)	February 25, 2021
/s/ Michael G. Atieh **Michael G. Atieh**	Director	February 25, 2021
/s/ Sheila P. Burke **Sheila P. Burke**	Director	February 25, 2021
/s/ James I. Cash **James I. Cash**	Director	February 25, 2021
/s/ Mary A. Cirillo **Mary A. Cirillo**	Director	February 25, 2021
/s/ Michael P. Connors **Michael P. Connors**	Director	February 25, 2021

Signature	Title	Date
/s/ John A. Edwardson **John A. Edwardson**	Director	February 25, 2021
/s/ Robert J. Hugin **Robert J. Hugin**	Director	February 25, 2021
/s/ Robert W. Scully **Robert W. Scully**	Director	February 25, 2021
/s/ Eugene B. Shanks, Jr. **Eugene B. Shanks, Jr.**	Director	February 25, 2021
/s/ Theodore E. Shasta **Theodore E. Shasta**	Director	February 25, 2021
/s/ David H. Sidwell **David H. Sidwell**	Director	February 25, 2021
/s/ Olivier Steimer **Olivier Steimer**	Director	February 25, 2021
/s/ Frances F. Townsend **Frances F. Townsend**	Director	February 25, 2021

CHUBB LIMITED AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2020

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Chubb Limited
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MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS AND INTERNAL CONTROL OVER FINANCIAL REPORTING

Financial Statements

The consolidated financial statements of Chubb Limited (Chubb) were prepared by management, which is responsible for their reliability and objectivity. The statements have been prepared in conformity with accounting principles generally accepted in the United States of America and, as such, include amounts based on informed estimates and judgments of management. Financial information elsewhere in this annual report is consistent with that in the consolidated financial statements.

The Board of Directors (Board), operating through its Audit Committee, which is composed entirely of directors who are not officers or employees of Chubb, provides oversight of the financial reporting process and safeguarding of assets against unauthorized acquisition, use or disposition. The Audit Committee annually recommends the appointment of an independent registered public accounting firm and submits its recommendation to the Board for approval.

The Audit Committee meets with management, the independent registered public accountants and the internal auditor; approves the overall scope of audit work and related fee arrangements; and reviews audit reports and findings. In addition, the independent registered public accountants and the internal auditor meet separately with the Audit Committee, without management representatives present, to discuss the results of their audits; the adequacy of Chubb's internal control; the quality of its financial reporting; and the safeguarding of assets against unauthorized acquisition, use or disposition.

The consolidated financial statements have been audited by an independent registered public accounting firm, PricewaterhouseCoopers LLP, which has been given access to all financial records and related data, including minutes of all meetings of the Board and committees of the Board. Chubb believes that all representations made to our independent registered public accountants during their audits were valid and appropriate.

Management's Report on Internal Control over Financial Reporting

The management of Chubb is responsible for establishing and maintaining adequate internal control over financial reporting. Pursuant to the rules and regulations of the Securities and Exchange Commission, internal control over financial reporting is a process designed by, or under the supervision of our Chief Executive Officer and Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our consolidated financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

As of December 31, 2020, management has evaluated the effectiveness of Chubb's internal control over financial reporting based on the criteria for effective internal control over financial reporting established in "Internal Control - Integrated Framework," issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Based on this evaluation, we have concluded that Chubb's internal control over financial reporting was effective as of December 31, 2020.

PricewaterhouseCoopers LLP, the independent registered public accounting firm that audited the consolidated financial statements of Chubb included in this Annual Report, has issued a report on the effectiveness of Chubb's internal controls over financial reporting as of December 31, 2020. The report, which expresses an unqualified opinion on the effectiveness of Chubb's internal control over financial reporting as of December 31, 2020, is included in this Item under "Report of Independent Registered Public Accounting Firm" and follows this statement.

/s/ Evan G. Greenberg	/s/ Philip V. Bancroft
Evan G. Greenberg	Philip V. Bancroft
Chairman and Chief Executive Officer	Executive Vice President and Chief Financial Officer

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Chubb Limited

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Chubb Limited and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of operations and comprehensive income, of shareholders' equity and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes and financial statement schedules listed in the index appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of Unpaid Losses and Loss Expenses, Net of Reinsurance

As described in Note 7 to the consolidated financial statements, as of December 31, 2020, the Company's liability for unpaid losses and loss expenses, net of reinsurance, was approximately $53 billion. The majority of the Company's net unpaid losses and loss expenses arise from the Company's long-tail casualty business (such as general liability and professional liability), U.S. sourced workers' compensation, asbestos-related, environmental pollution and other exposures with high estimation uncertainty. The process of establishing loss reserves requires the use of estimates and judgments based on circumstances underlying the insured loss at the date of accrual. The judgments involved in projecting the ultimate losses include the use and interpretation of various standard actuarial reserving methods that place reliance on the extrapolation of actual historical data, loss development patterns, industry data, and other benchmarks as appropriate. The reserves for the various product lines each require different qualitative and quantitative assumptions and judgments, including changes in business mix or volume, changes in ceded reinsurance structures, changes in claims handling practices, reported and projected loss trends, inflation, the legal environment, and the terms and conditions of the contracts sold to the Company's insured parties.

The principal considerations for our determination that performing procedures relating to the valuation of unpaid losses and loss expenses, net of reinsurance, from the long-tail and other exposures as described above, is a critical audit matter are (i) the significant judgment by management in determining the reserve liability, which in turn led to a high degree of auditor subjectivity and judgment in performing procedures relating to the valuation; (ii) the significant audit effort and judgment in evaluating the audit evidence relating to the actuarial reserving methods and assumptions related to extrapolation of actual historical data, loss development patterns, industry data, other benchmarks, and the impact of qualitative and quantitative subjective factors; and (iii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the Company's valuation of unpaid losses and loss expenses, net of reinsurance, including controls over the selection of actuarial methodologies and development of significant assumptions. These procedures also included, among others, the involvement of professionals with specialized skill and knowledge to assist in performing one or a combination of procedures, including (i) independently estimating reserves on a sample basis using actual historical data and loss development patterns, as well as industry data and other benchmarks, to develop an independent estimate and comparing the independent estimate to management's actuarially determined reserves; and (ii) evaluating management's actuarial reserving methodologies and aforementioned assumptions, as well as assessing qualitative adjustments to carried reserves and the consistency of management's approach period-over-period. Performing these procedures involved testing the completeness and accuracy of data provided by management.

Valuation of Level 3 Investments in the Valuation Hierarchy

As described in Note 4 to the consolidated financial statements, as of December 31, 2020, the Company had total assets measured at fair value of approximately $106 billion, of which approximately $2 billion were categorized as level 3 in the valuation hierarchy. The level 3 investments are measured at fair value using inputs that are unobservable and reflect management's judgments about assumptions that market participants would use in pricing or, for certain of the investments, management obtains and evaluates a single broker quote, which is typically from a market maker. As described by management, the valuation is more subjective when markets are less liquid due to the lack of market based inputs (i.e., stale pricing), which may increase the potential that an investment's estimated fair value is not reflective of the price at which an

actual transaction would occur.

The principal considerations for our determination that performing procedures relating to the valuation of level 3 investments in the valuation hierarchy is a critical audit matter are (i) the significant judgment by management in determining the fair value of these investments as they are measured using inputs that are unobservable and are likely to be priced using models or inputs other than quoted prices, which in turn led to a high degree of auditor subjectivity and judgment in performing procedures relating to the estimate; and (ii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of the controls relating to the valuation of level 3 investments. These procedures also included, among others, obtaining pricing from sources other than those used by management for a sample of securities and comparing management's estimate to the prices independently obtained, and the involvement of professionals with specialized skill and knowledge to assist in developing an independent range of prices for a sample of securities and comparing management's estimate to the independently developed ranges.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Philadelphia, PA

February 25, 2021

We have served as the Company's auditor since 1985, which includes periods before the Company became subject to SEC reporting requirements.

CONSOLIDATED BALANCE SHEETS

Chubb Limited and Subsidiaries

(in millions of U.S. dollars, except share and per share data)	December 31 2020	December 31 2019
Assets		
Investments		
Fixed maturities available for sale, at fair value, net of valuation allowance – $20 at December 31, 2020 (amortized cost – $85,188 and $82,580)	**$ 90,699**	$ 85,488
Fixed maturities held to maturity, at amortized cost, net of valuation allowance – $44 at December 31, 2020 (fair value – $12,510 and $13,005)	**11,653**	12,581
Equity securities, at fair value	**4,027**	812
Short-term investments, at fair value (amortized cost – $4,349 and $4,291)	**4,345**	4,291
Other investments, at fair value	**7,945**	6,062
Total investments	**118,669**	109,234
Cash	**1,747**	1,537
Restricted cash	**89**	109
Securities lending collateral	**1,844**	994
Accrued investment income	**867**	867
Insurance and reinsurance balances receivable, net of valuation allowance – $44 and $44	**10,480**	10,357
Reinsurance recoverable on losses and loss expenses, net of valuation allowance – $314 and $316	**15,592**	15,181
Reinsurance recoverable on policy benefits	**206**	197
Deferred policy acquisition costs	**5,402**	5,242
Value of business acquired	**263**	306
Goodwill	**15,400**	15,296
Other intangible assets	**5,811**	6,063
Prepaid reinsurance premiums	**2,769**	2,647
Investments in partially-owned insurance companies	**2,813**	1,332
Other assets	**8,822**	7,581
Total assets	**$ 190,774**	$ 176,943
Liabilities		
Unpaid losses and loss expenses	**$ 67,811**	$ 62,690
Unearned premiums	**17,652**	16,771
Future policy benefits	**5,713**	5,373
Insurance and reinsurance balances payable	**6,708**	6,184
Securities lending payable	**1,844**	994
Accounts payable, accrued expenses, and other liabilities	**14,052**	12,214
Deferred tax liabilities	**892**	804
Repurchase agreements	**1,405**	1,416
Short-term debt	**—**	1,299
Long-term debt	**14,948**	13,559
Trust preferred securities	**308**	308
Total liabilities	**131,333**	121,612
Commitments and contingencies (refer to Note 10)		
Shareholders' equity		
Common Shares (CHF 24.15 par value; 477,605,264 and 479,783,864 shares issued; 450,732,625 and 451,971,567 shares outstanding)	**11,064**	11,121
Common Shares in treasury (26,872,639 and 27,812,297 shares)	**(3,644)**	(3,754)
Additional paid-in capital	**9,815**	11,203
Retained earnings	**39,337**	36,142
Accumulated other comprehensive income (AOCI)	**2,869**	619
Total shareholders' equity	**59,441**	55,331
Total liabilities and shareholders' equity	**$ 190,774**	$ 176,943

See accompanying notes to the Consolidated Financial Statements

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

Chubb Limited and Subsidiaries

For the years ended December 31, 2020, 2019, and 2018 (in millions of U.S. dollars, except per share data)	2020	2019	2018
Revenues			
Net premiums written	**$ 33,820**	$ 32,275	$ 30,579
Increase in unearned premiums	**(703)**	(985)	(515)
Net premiums earned	**33,117**	31,290	30,064
Net investment income	**3,375**	3,426	3,305
Net realized gains (losses):			
Other-than-temporary impairment (OTTI) losses gross	**—**	(90)	(52)
Portion of OTTI losses recognized in other comprehensive income (OCI)	**—**	32	3
Net OTTI losses recognized in income	**—**	(58)	(49)
Net realized gains (losses) excluding OTTI losses	**(498)**	(472)	(603)
Total net realized gains (losses) (includes $(281), $(31), and $(302) reclassified from AOCI)	**(498)**	(530)	(652)
Total revenues	**35,994**	34,186	32,717
Expenses			
Losses and loss expenses	**21,710**	18,730	18,067
Policy benefits	**784**	740	590
Policy acquisition costs	**6,547**	6,153	5,912
Administrative expenses	**2,979**	3,030	2,886
Interest expense	**516**	552	641
Other (income) expense	**(994)**	(596)	(434)
Amortization of purchased intangibles	**290**	305	339
Chubb integration expenses	**—**	23	59
Total expenses	**31,832**	28,937	28,060
Income before income tax	**4,162**	5,249	4,657
Income tax expense (includes benefit of $(36), nil, and $(41) on unrealized gains and losses reclassified from AOCI)	**629**	795	695
Net income	**$ 3,533**	$ 4,454	$ 3,962
Other comprehensive income (loss)			
Unrealized appreciation (depreciation)	**$ 2,311**	$ 3,704	$ (2,298)
Reclassification adjustment for net realized (gains) losses included in net income	**281**	31	302
	2,592	3,735	(1,996)
Change in:			
Cumulative foreign currency translation adjustment	**306**	13	(802)
Postretirement benefit liability adjustment	**(232)**	(76)	(321)
Other comprehensive income (loss), before income tax	**2,666**	3,672	(3,119)
Income tax (expense) benefit related to OCI items	**(416)**	(605)	399
Other comprehensive income (loss)	**2,250**	3,067	(2,720)
Comprehensive income	**$ 5,783**	$ 7,521	$ 1,242
Earnings per share			
Basic earnings per share	**$ 7.82**	$ 9.77	$ 8.55
Diluted earnings per share	**$ 7.79**	$ 9.71	$ 8.49

See accompanying notes to the Consolidated Financial Statements

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

Chubb Limited and Subsidiaries

For the years ended December 31, 2020, 2019, and 2018

(in millions of U.S. dollars)	2020	2019	2018
Common Shares			
Balance – beginning of year	**$ 11,121**	$ 11,121	$ 11,121
Cancellation of treasury shares	**(57)**	—	—
Balance – end of year	**11,064**	11,121	11,121
Common Shares in treasury			
Balance – beginning of year	**(3,754)**	(2,618)	(1,944)
Common Shares repurchased	**(516)**	(1,531)	(1,021)
Cancellation of treasury shares	**323**	—	—
Net shares issued under employee share-based compensation plans	**303**	395	347
Balance – end of year	**(3,644)**	(3,754)	(2,618)
Additional paid-in capital			
Balance – beginning of year	**11,203**	12,557	13,978
Net shares issued under employee share-based compensation plans	**(195)**	(178)	(313)
Exercise of stock options	**(50)**	(82)	(49)
Share-based compensation expense	**255**	266	285
Funding of dividends declared to Retained earnings	**(1,398)**	(1,360)	(1,344)
Balance – end of year	**9,815**	11,203	12,557
Retained earnings			
Balance – beginning of year	**36,142**	31,700	27,474
Cumulative effect of adoption of accounting standards (refer to Note 1)	**(72)**	(12)	264
Balance – beginning of year, as adjusted	**36,070**	31,688	27,738
Net income	**3,533**	4,454	3,962
Cancellation of treasury shares	**(266)**	—	—
Funding of dividends declared from Additional paid-in capital	**1,398**	1,360	1,344
Dividends declared on Common Shares	**(1,398)**	(1,360)	(1,344)
Balance – end of year	**39,337**	36,142	31,700
Accumulated other comprehensive income (loss)			
Net unrealized appreciation (depreciation) on investments			
Balance – beginning of year	**2,543**	(545)	1,450
Cumulative effect of adoption of accounting standards	**—**	—	(296)
Balance – beginning of year, as adjusted	**2,543**	(545)	1,154
Change in year, before reclassification from AOCI, net of income tax (expense) benefit of $(426), $(647), and $338	**1,885**	3,057	(1,960)
Amounts reclassified from AOCI, net of income tax (expense) of $(36), nil, and $(41)	**245**	31	261
Change in year, net of income tax (expense) benefit of $(462), $(647), and $297	**2,130**	3,088	(1,699)
Balance – end of year	**4,673**	2,543	(545)
Cumulative foreign currency translation adjustment			
Balance – beginning of year	**(1,939)**	(1,976)	(1,187)
Cumulative effect of adoption of accounting standards	**—**	—	(22)
Balance – beginning of year, as adjusted	**(1,939)**	(1,976)	(1,209)
Change in year, net of income tax (expense) benefit of $(4), $24, and $35	**302**	37	(767)
Balance – end of year	**(1,637)**	(1,939)	(1,976)
Postretirement benefit liability adjustment			
Balance – beginning of year	**15**	73	280
Cumulative effect of adoption of accounting standards	**—**	—	47
Balance – beginning of year, as adjusted	**15**	73	327
Change in year, net of income tax benefit of $50, $18, and $67	**(182)**	(58)	(254)
Balance – end of year	**(167)**	15	73
Accumulated other comprehensive income (loss)	**2,869**	619	(2,448)
Total shareholders' equity	**$ 59,441**	$ 55,331	$ 50,312

See accompanying notes to the Consolidated Financial Statements

CONSOLIDATED STATEMENTS OF CASH FLOWS

Chubb Limited and Subsidiaries

For the years ended December 31, 2020, 2019, and 2018

(in millions of U.S. dollars)	2020	2019	2018
Cash flows from operating activities			
Net income	**$ 3,533**	$ 4,454	$ 3,962
Adjustments to reconcile net income to net cash flows from operating activities			
Net realized (gains) losses	**498**	530	652
Amortization of premiums/discounts on fixed maturities	**367**	395	592
Amortization of purchased intangibles	**290**	305	339
Deferred income taxes	**(333)**	(97)	16
Unpaid losses and loss expenses	**4,664**	(257)	570
Unearned premiums	**846**	1,051	654
Future policy benefits	**236**	215	235
Insurance and reinsurance balances payable	**535**	(302)	722
Accounts payable, accrued expenses, and other liabilities	**(98)**	(207)	375
Income taxes payable	**46**	(7)	161
Insurance and reinsurance balances receivable	**(114)**	(270)	(981)
Reinsurance recoverable	**(336)**	838	(1,165)
Deferred policy acquisition costs	**(89)**	(344)	(301)
Other	**(260)**	38	(351)
Net cash flows from operating activities	**9,785**	6,342	5,480
Cash flows from investing activities			
Purchases of fixed maturities available for sale	**(26,298)**	(25,846)	(24,700)
Purchases of to be announced mortgage-backed securities	**—**	—	(35)
Purchases of fixed maturities held to maturity	**(202)**	(229)	(456)
Purchases of equity securities	**(6,419)**	(531)	(207)
Sales of fixed maturities available for sale	**11,377**	13,110	14,001
Sales of to be announced mortgage-backed securities	**—**	6	29
Sales of equity securities	**3,880**	611	315
Maturities and redemptions of fixed maturities available for sale	**12,450**	9,039	7,352
Maturities and redemptions of fixed maturities held to maturity	**995**	946	1,124
Net change in short-term investments	**(81)**	(1,117)	516
Net derivative instruments settlements	**(113)**	(703)	16
Private equity contributions	**(1,924)**	(1,315)	(1,337)
Private equity distributions	**907**	1,390	980
Acquisition of subsidiaries (net of cash acquired of nil, $45, nil)	**—**	(29)	—
Payment, including deposit, for Huatai Group interest	**(1,623)**	(580)	—
Other	**(470)**	(657)	(533)
Net cash flows used for investing activities	**(7,521)**	(5,905)	(2,935)
Cash flows from financing activities			
Dividends paid on Common Shares	**(1,388)**	(1,354)	(1,337)
Common Shares repurchased	**(523)**	(1,530)	(1,044)
Proceeds from issuance of long-term debt	**988**	2,828	2,171
Proceeds from issuance of repurchase agreements	**2,354**	2,817	2,029
Repayment of long-term debt	**(1,301)**	(510)	(2,001)
Repayment of repurchase agreements	**(2,354)**	(2,817)	(2,019)
Proceeds from share-based compensation plans	**145**	204	115
Policyholder contract deposits and other	**470**	514	453
Policyholder contract withdrawals and other	**(386)**	(303)	(358)
Other	**(87)**	—	—
Net cash flows used for financing activities	**(2,082)**	(151)	(1,991)
Effect of foreign currency rate changes on cash and restricted cash	**8**	20	(65)
Net increase in cash and restricted cash	**190**	306	489
Cash and restricted cash – beginning of year	**1,646**	1,340	851
Cash and restricted cash – end of year	**$ 1,836**	$ 1,646	$ 1,340
Supplemental cash flow information			
Taxes paid	**$ 902**	$ 912	$ 503
Interest paid	**$ 524**	$ 512	$ 621

See accompanying notes to the Consolidated Financial Statements

1. Summary of significant accounting policies

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 15 for additional information.

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

- unpaid loss and loss expense reserves, including long-tail asbestos and environmental (A&E) reserves and non-A&E casualty exposures;
- future policy benefits reserves;
- amortization of deferred policy acquisition costs and value of business acquired (VOBA);
- reinsurance recoverable, including a valuation allowance for uncollectible reinsurance;
- the assessment of risk transfer for certain structured insurance and reinsurance contracts;
- the valuation of the investment portfolio and assessment of valuation allowance for expected credit losses;
- the valuation of deferred income taxes;
- the valuation of derivative instruments related to guaranteed living benefits (GLB);
- the valuation and amortization of purchased intangibles; and
- the assessment of goodwill for impairment.

b) Premiums

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

For property and casualty (P&C) insurance and reinsurance products, premiums written are primarily earned on a pro-rata basis over the policy terms to which they relate. Unearned premiums represent the portion of premiums written applicable to the unexpired portion of the policies in force. For retrospectively-rated policies, written premiums are adjusted to reflect expected ultimate premiums consistent with changes to incurred losses, or other measures of exposure as stated in the policy, and earned over the policy coverage period.

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

Premiums from long-duration contracts such as certain traditional term life, whole life, endowment, and long-duration personal accident and health (A&H) policies are generally recognized as revenue when due from policyholders. Traditional life policies

include those contracts with fixed and guaranteed premiums and benefits. Benefits and expenses are matched with income to result in the recognition of profit over the life of the contracts.

Retroactive loss portfolio transfer (LPT) contracts in which the insured loss events occurred prior to contract inception are evaluated to determine whether they meet criteria for reinsurance accounting. If reinsurance accounting is appropriate, written premiums are fully earned and corresponding losses and loss expenses recognized at contract inception. These contracts can cause significant variances in gross premiums written, net premiums written, net premiums earned, and net incurred losses in the years in which they are written. Reinsurance contracts sold not meeting the criteria for reinsurance accounting are recorded using the deposit method as described below in Note 1 k).

Reinsurance premiums assumed are based on information provided by ceding companies supplemented by our own estimates of premium when we have not received ceding company reports. Estimates are reviewed and adjustments are recorded in the period in which they are determined. Premiums are earned over the coverage terms of the related reinsurance contracts and range from one to three years.

c) Deferred policy acquisition costs and value of business acquired

Policy acquisition costs consist of commissions (direct and ceded), premium taxes, and certain underwriting costs related directly to the successful acquisition of new or renewal insurance contracts. A VOBA intangible asset is established upon the acquisition of blocks of long-duration contracts in a business combination and represents the present value of estimated net cash flows for the contracts in force at the acquisition date. Acquisition costs and VOBA, collectively policy acquisition costs, are deferred and amortized. Amortization is recorded in Policy acquisition costs in the Consolidated statements of operations. Policy acquisition costs on P&C contracts are generally amortized ratably over the period in which premiums are earned. Policy acquisition costs on traditional long-duration contracts are amortized over the estimated life of the contracts, generally in proportion to premium revenue recognized based upon the same assumptions used in estimating the liability for future policy benefits. For non-traditional long-duration contracts, we amortize policy acquisition costs over the expected life of the contracts in proportion to expected gross profits. The effect of changes in estimates of expected gross profits is reflected in the period the estimates are revised. Policy acquisition costs are reviewed to determine if they are recoverable from future income, including investment income. Unrecoverable policy acquisition costs are expensed in the period identified.

Advertising costs are expensed as incurred except for direct-response campaigns that qualify for cost deferral, principally related to long-duration A&H business produced by the Overseas General Insurance segment, which are deferred and recognized as a component of Policy acquisition costs. For individual direct-response marketing campaigns that we can demonstrate have specifically resulted in incremental sales to customers and such sales have probable future economic benefits, incremental costs directly related to the marketing campaigns are capitalized as Deferred policy acquisition costs. Deferred policy acquisition costs, including deferred marketing costs, are reviewed regularly for recoverability from future income, including investment income, and amortized in proportion to premium revenue recognized, primarily over a ten-year period, the expected economic future benefit period based upon the same assumptions used in estimating the liability for future policy benefits. The expected future benefit period is evaluated periodically based on historical results and adjusted prospectively. The amount of deferred marketing costs reported in Deferred policy acquisition costs in the Consolidated balance sheets was $226 million and $246 million at December 31, 2020 and 2019, respectively. Amortization expense for deferred marketing costs was $99 million, $109 million, and $114 million for the years ended December 31, 2020, 2019, and 2018, respectively.

d) Reinsurance

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

For both ceded and assumed reinsurance, risk transfer requirements must be met in order to account for a contract as reinsurance, principally resulting in the recognition of cash flows under the contract as premiums and losses. To meet risk transfer requirements, a reinsurance contract must include insurance risk, consisting of both underwriting and timing risk, and a reasonable possibility of a significant loss for the assuming entity. To assess risk transfer for certain contracts, Chubb generally develops expected discounted cash flow analyses at contract inception. Deposit accounting is used for contracts that do not meet risk transfer requirements. Deposit accounting requires that consideration received or paid be recorded in the balance sheet as opposed to recording premiums written or losses incurred in the statement of operations. Non-refundable fees on deposit contracts are earned based on the terms of the contract described below in Note 1 k).

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

Reinsurance recoverable is presented net of a valuation allowance for uncollectible reinsurance determined based upon a review of the financial condition of reinsurers and other factors. The valuation allowance for uncollectible reinsurance is based on an estimate of the reinsurance recoverable balance that will ultimately be unrecoverable due to reinsurer insolvency, a contractual dispute, or any other reason. The valuation of this allowance includes several judgments including certain aspects of the allocation of reinsurance recoverable on IBNR claims by reinsurer and a default analysis to estimate uncollectible reinsurance. The primary components of the default analysis are reinsurance recoverable balances by reinsurer, net of collateral, and default factors used to determine the portion of a reinsurer's balance deemed uncollectible. The definition of collateral for this purpose requires some judgment and is generally limited to assets held in a Chubb-only beneficiary trust, letters of credit, and liabilities held with the same legal entity for which Chubb believes there is a contractual right of offset. The determination of the default factor is principally based on the financial strength rating of the reinsurer. Default factors require considerable judgment and are determined using the current financial strength rating, or rating equivalent, of each reinsurer as well as other key considerations and assumptions. Changes in the valuation allowance for uncollectible reinsurance recoverables are recorded in Losses and loss expenses in the Consolidated statements of operations. Our methodology to calculate the valuation allowance was consistent with the new expected credit loss guidance adopted on January 1, 2020. Therefore, there was no change to the valuation allowance upon adoption. The more significant considerations include, but are not necessarily limited to, the following:

- For reinsurers that maintain a financial strength rating from a major rating agency, and for which recoverable balances are considered representative of the larger population (i.e., default probabilities are consistent with similarly rated reinsurers and payment durations conform to averages), the financial rating is based on a published source and the default factor is based on published default statistics of a major rating agency applicable to the reinsurer's particular rating class. When a recoverable is expected to be paid in a brief period of time by a highly rated reinsurer, such as certain property catastrophe claims, a default factor may not be applied;
- For balances recoverable from reinsurers that are both unrated by a major rating agency and for which management is unable to determine a credible rating equivalent based on a parent, affiliate, or peer company, we determine a rating equivalent based on an analysis of the reinsurer that considers an assessment of the creditworthiness of the particular entity, industry benchmarks, or other factors as considered appropriate. We then apply the applicable default factor for that rating class. For balances recoverable from unrated reinsurers for which the ceded reserve is below a certain threshold, we generally apply a default factor of 34 percent, consistent with published statistics of a major rating agency;
- For balances recoverable from reinsurers that are either insolvent or under regulatory supervision, we establish a default factor and resulting valuation allowance for uncollectible reinsurance based on reinsurer-specific facts and circumstances. Upon initial notification of an insolvency, we generally recognize an expense for a substantial portion of all balances outstanding, net of collateral, through a combination of write-offs of recoverable balances and increases to the valuation allowance for uncollectible reinsurance. When regulatory action is taken on a reinsurer, we generally recognize a default factor by estimating an expected recovery on all balances outstanding, net of collateral. When sufficient credible information becomes available, we adjust the valuation allowance for uncollectible reinsurance by establishing a default factor pursuant to information received; and
- For other recoverables, management determines the valuation allowance for uncollectible reinsurance based on the specific facts and circumstances.

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

The methods used to determine the valuation allowance for uncollectible high deductible recoverable amounts and valuation allowance for insurance and reinsurance balances receivable are similar to the processes used to determine the valuation allowance for uncollectible reinsurance recoverable. For information on high deductible policies, refer to section h) Unpaid losses and loss expenses, below.

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

The value of reinsurance business assumed is the deferred gain or loss related to loss portfolio transfers assumed and is calculated as the difference between the estimated ultimate value of the liabilities assumed under retroactive reinsurance contracts over consideration received. The gain or loss is amortized and recorded to Losses and loss expenses based on the payment pattern of the losses assumed. The unamortized value is reviewed regularly to determine if it is recoverable based upon the terms of the contract, estimated losses and loss expenses, and anticipated investment income. Unrecoverable amounts are expensed in the period identified. The value of reinsurance business assumed at December 31, 2020 and 2019 were immaterial.

e) Investments

Fixed maturities, equity securities, and short-term investments

Fixed maturities are classified as either available for sale or held to maturity.

- Available for sale (AFS) portfolio is reported at fair value, net of a valuation allowance for credit losses, with changes in fair value recorded as a separate component of AOCI in Shareholders' equity.
- Held to maturity (HTM) portfolio includes securities for which we have the ability and intent to hold to maturity or redemption and is reported at amortized cost, net of a valuation allowance for credit losses.

Equity securities are reported at fair value with changes in fair value recorded in net realized gains (losses) on the Consolidated statement of operations.

Short-term investments comprise securities due to mature within one year of the date of purchase and are recorded at fair value which typically approximates cost.

Interest, dividend income, and amortization of fixed maturity market premiums and discounts, related to these securities are recorded in Net investment income, net of investment management and custody fees, in the Consolidated statement of operations.

In addition, net investment income includes the amortization of the fair value adjustment related to the acquired invested assets of The Chubb Corporation (Chubb Corp). An adjustment of $1,652 million related to the fair value of Chubb Corp's fixed maturities securities was recorded (fair value adjustment) at the date of acquisition. At December 31, 2020, the remaining balance of this fair value adjustment was $213 million which is expected to amortize over the next two years; however, the estimate could vary materially based on current market conditions, bond calls, and the duration of the acquired investment portfolio. In addition, sales of these acquired fixed maturities would also reduce the fair value adjustment balance. For mortgage-backed securities and any other holdings for which there is a prepayment risk, prepayment assumptions are evaluated and revised as necessary. Any adjustments required due to the resultant change in effective yields and maturities are recognized prospectively. Prepayment fees or call premiums that are only payable when a security is called prior to its maturity are earned when received and reflected in Net investment income.

Valuation allowance for fixed income securities

Management evaluates current expected credit losses (CECL) for all HTM securities each quarter. U.S. treasury and agency securities and U.S. government agency mortgage-backed securities are assumed to have no risk of non-payment and therefore are excluded from the CECL evaluation. The remaining HTM securities are evaluated for potential credit loss on a collective pool basis. We elected to pool HTM securities by 1) external credit rating and 2) time to maturity (duration). These characteristics are the most representative of similar risk characteristics within our portfolio. Chubb pools HTM securities and calculates an expected credit loss for each pool using Moody's corporate bond default average, corporate bond recovery rate, and an economic cycle multiplier. The multiplier is based on the leading economic index and will adjust the average default frequency for a forward-looking economic outlook. Management monitors the credit quality of HTM securities through the review of external credit ratings on a quarterly basis.

Management evaluates expected credit losses (ECL) for AFS securities when fair value is below amortized cost. AFS securities are evaluated for potential credit loss on an individual security level but the evaluation may use assumptions consistent with expectations of credit losses for a group of similar securities. If management has the intent to sell or will be required to sell the security before recovery, the entire impairment loss will be recorded through income to net realized gains and losses. If management does not have the intent to sell or will not be required to sell the security before recovery, an allowance for credit losses is established and is recorded through income to net realized gains and losses, and the non-credit loss portion is recorded through other comprehensive income.

Examples of criteria that are collectively evaluated to determine if a credit loss has occurred include the following:

- The extent to which the fair value is less than amortized cost;
- Adverse conditions related to the security, industry, or geographic area;
- Downgrades in the security's credit rating by a rating agency; and
- Failure of the issuer to make scheduled principal or interest payments

AFS securities that meet any one of the criteria included above will be subject to a discounted cash flow analysis by comparing the present value of expected future cash flows with the amortized cost basis. Projected cash flows are driven primarily by assumptions regarding probability of default and the timing and amount of recoveries associated with defaults. Chubb developed the projected cash flows using market data, issuer-specific information, and credit ratings. In combination with contractual cash flows and the use of historical default and recovery data by Moody's Investors Service (Moody's) rating category we generate expected cash flows using the average cumulative issuer-weighted global default rates by letter rating.

If the present value of expected future cash flows is less than the amortized cost, a credit loss exists and an allowance for credit losses will be recognized. If the present value of expected future cash flows is equal to or greater than the amortized cost basis, management will conclude an expected credit loss does not exist.

Management reviews credit losses and the valuation allowance for expected credit losses each quarter. When all or a portion of a fixed maturity security is identified to be uncollectible and written off, the valuation allowance for expected credit losses is reduced by the same amount. In general, a security is considered uncollectible no later than when all efforts to collect contractual cash flows have been exhausted. Below are considerations for when a security may be deemed uncollectible:

- We have sufficient information to determine that the issuer of the security is insolvent;
- We receive notice that the issuer of the security has filed for bankruptcy, and the collectability is expected to be adversely impacted by the bankruptcy;
- The issuer of a security has violated multiple debt covenants;
- Amounts have been past due for a specified period of time with no response from the issuer;
- A significant deterioration in the value of the collateral has occurred;
- We have received correspondence from the issuer of the security indicating that it doesn't intend to pay the contractual principal and interest.

We elected to not measure an allowance for accrued investment income as uncollectible balances are written off in a timely manner, typically 30 to 45 days after uncollected balances are due.

Prior to January 1, 2020, fixed income securities were evaluated individually for other-than-temporary impairment (OTTI) and a realized loss was recognized once certain criteria were met.

Other investments
Other investments principally comprise investment funds, limited partnerships, partially-owned investment companies, life insurance policies, policy loans, and non-qualified separate account assets.

Investment funds and limited partnerships
Investment funds, limited partnerships, and all other investments over which Chubb cannot exercise significant influence are accounted for as follows. Generally, we own less than three percent of the investee's shares.

- Income and expenses from these funds are reported within Net investment income.
- These funds are carried at net asset value, which approximates fair value with changes in fair value recorded in net realized gains (losses) on the Consolidated statement of operations. Refer to Note 4 for a further discussion on net asset value.
- As a result of the timing of the receipt of valuation data from the investment managers, these investments are generally reported on a three-month lag.
- Sales of these investments are reported within Net realized gains (losses).

Partially-owned investment companies

Partially-owned investment companies where our ownership interest is in excess of three percent are accounted for under the equity method because Chubb exerts significant influence. These investments apply investment company accounting to determine operating results, and Chubb retains the investment company accounting in applying the equity method.

- This means that investment income, realized gains or losses, and unrealized gains or losses are included in the portion of equity earnings reflected in Other (income) expense.
- As a result of the timing of the receipt of valuation data from the investment managers, these investments are generally reported on a three-month lag.

Other

- Policy loans are carried at outstanding balance and interest income is reflected in Net investment income.
- Life insurance policies are carried at policy cash surrender value and income is reflected in Other (income) expense.
- Non-qualified separate account assets are supported by assets that do not qualify for separate accounting reporting under GAAP. The underlying securities are recorded on a trade date basis and carried at fair value. Unrealized gains and losses on non-qualified separate account assets are reflected in Other (income) expense.

Investments in partially-owned insurance companies
Investments in partially-owned insurance companies primarily represent direct investments in which Chubb has significant influence and as such, meet the requirements for equity accounting. Generally, we own twenty percent or more of the investee's shares. We report our share of the net income or loss of the partially-owned insurance companies in Other (income) expense.

Derivative instruments
Chubb recognizes all derivatives at fair value in the Consolidated balance sheets in either Accounts payable, accrued expenses, and other liabilities or Other assets. Changes in fair value are included in Net realized gains (losses) in the Consolidated statements of operations. We did not designate any derivatives as accounting hedges. We participate in derivative instruments in two principal ways:

(i) To sell protection to customers as an insurance or reinsurance contract that meets the definition of a derivative for accounting purposes. This category principally comprised our GLB contracts; and

(ii) To mitigate financial risks and manage certain investment portfolio risks and exposures, including assets and liabilities held in foreign currencies. We use derivative instruments including futures, options, swaps, and foreign currency forward contracts. Refer to Note 10 for additional information.

Securities lending program
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 which is recorded within Net investment income in the Consolidated statement of operations.

Borrowers provide collateral, in the form of either cash or approved securities, at a minimum of 102 percent of the fair value of the loaned securities. Each security loan is deemed to be an overnight transaction. Cash collateral is invested in a collateral pool which is managed by the banking institution. The collateral pool is subject to written investment guidelines with key objectives which include the safeguard of principal and adequate liquidity to meet anticipated redemptions. The fair value of the loaned securities is monitored on a daily basis, with additional collateral obtained or refunded as the fair value of the loaned securities changes. The collateral is held by the third-party banking institution, and the collateral can only be accessed in the event that the institution borrowing the securities is in default under the lending agreement. As a result of these restrictions, we consider our securities lending activities to be non-cash investing and financing activities. An indemnification agreement with the lending agent protects us in the event a borrower becomes insolvent or fails to return any of the securities on loan.

The fair value of the securities on loan is included in fixed maturities and equity securities in the Consolidated balance sheets. The securities lending collateral is reported as a separate line in the Consolidated balance sheets with a related liability reflecting our obligation to return the collateral plus interest.

Repurchase agreements
Similar to securities lending arrangements, securities sold under repurchase agreements, whereby Chubb sells securities and repurchases them at a future date for a predetermined price, are accounted for as collateralized investments and borrowings and are recorded at the contractual repurchase amounts plus accrued interest. Assets to be repurchased are the same or substantially the same as the assets transferred, and the transferor, through right of substitution, maintains the right and ability to redeem the collateral on short notice. The fair value of the underlying securities is included in fixed maturities and equity securities. In contrast to securities lending programs, the use of cash received is not restricted. We report the obligation to return the cash as Repurchase agreements in the Consolidated balance sheets and record the fees under these repurchase agreements within Interest expense on the Consolidated statement of operations.

Refer to Note 4 for a discussion on the determination of fair value for Chubb's various investment securities.

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

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:

	December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Cash	**$ 1,747**	$ 1,537	$ 1,247
Restricted cash	**89**	109	93
Total cash and restricted cash shown in the Consolidated statements of cash flows	**$ 1,836**	$ 1,646	$ 1,340

g) Goodwill and Other intangible assets
Goodwill represents the excess of the cost of acquisitions over the fair value of net assets acquired and is not amortized. Goodwill is assigned at acquisition to the applicable reporting unit of the acquired entities giving rise to the goodwill. Goodwill impairment tests are performed annually or more frequently if circumstances indicate a possible impairment. For goodwill impairment testing, we use a qualitative assessment to determine whether it is more likely than not (i.e., more than a 50 percent probability) that the fair value of a reporting unit is greater than its carrying amount. If our assessment indicates less than a 50 percent probability that fair value exceeds carrying value, we quantitatively estimate a reporting unit's fair value. Goodwill recorded in connection with investments in partially-owned insurance companies is recorded in Investments in partially-owned insurance companies and is also measured for impairment annually.

Indefinite lived intangible assets are not subject to amortization. Finite lived intangible assets are amortized over their useful lives, generally with an average original useful life of 25 years. Intangible assets are regularly reviewed for indicators of impairment. Impairment is recognized if the carrying amount is not recoverable from its undiscounted cash flows and is measured as the difference between the carrying amount and fair value.

h) Unpaid losses and loss expenses
A liability is established for the estimated unpaid losses and loss expenses under the terms of, and with respect to, Chubb's policies and agreements. Similar to premiums that are recognized as revenues over the coverage period of the policy, a liability for unpaid losses and loss expenses is recognized as expense when insured events occur over the coverage period of the policy.

This liability includes a provision for both reported claims (case reserves) and incurred but not reported claims (IBNR reserves). IBNR reserve estimates are generally calculated by first projecting the ultimate cost of all losses that have occurred (expected losses), and then subtracting paid losses, case reserves, and loss expenses. The methods of determining such estimates and establishing the resulting liability are reviewed regularly and any adjustments are reflected in income in the period in which they become known. Future developments may result in losses and loss expenses materially greater or less than recorded amounts.

Except for net unpaid loss and loss expense reserves of $26 million, net of discount, held at December 31, 2020, representing certain structured settlements for which the timing and amount of future claim payments are reliably determinable and $42 million, net of discount, of certain reserves for unsettled claims, Chubb does not discount its P&C loss reserves. This compares with reserves of $31 million for certain structured settlements and $43 million of certain reserves for unsettled claims at December 31, 2019. Structured settlements represent contracts purchased from life insurance companies primarily to settle workers' compensation claims, where payments to the claimant by the life insurance company are expected to be made in the form of an annuity. Chubb retains the liability to the claimant in the event that the life insurance company fails to pay. At December 31, 2020, the liability due to claimants was $548 million, net of discount, and reinsurance recoverables due from the life insurance companies was $522 million, net of discount. For structured settlement contracts where payments are guaranteed regardless of claimant life expectancy, the amounts recoverable from the life insurance companies at December 31, 2020 are included in Other assets in the Consolidated balance sheets, as they do not meet the requirements for reinsurance accounting.

Included in Unpaid losses and loss expenses are liabilities for asbestos and environmental (A&E) claims and expenses. These unpaid losses and loss expenses are principally related to claims arising from remediation costs associated with hazardous waste sites and bodily-injury claims related to asbestos products and environmental hazards. The estimation of these liabilities is particularly sensitive to changes in the legal environment including specific settlements that may be used as precedents to settle future claims. However, Chubb does not anticipate future changes in laws and regulations in setting its A&E reserve levels.

Also included in Unpaid losses and loss expenses is the fair value adjustment of $110 million and $145 million at December 31, 2020 and 2019, respectively, related to Chubb Corp's historical unpaid losses and loss expenses. The estimated fair value consists of the present value of the expected net unpaid loss and loss adjustment expense payments adjusted for an estimated risk margin. The estimated cash flows are discounted at a risk free rate. The estimated risk margin varies based on the inherent risks associated with each type of reserve. The fair value is amortized through Amortization of purchased intangibles on the consolidated statements of operations through the year 2032, based on the estimated payout patterns of unpaid loss and loss expenses at the acquisition date.

Our loss reserves are presented net of contractual deductible recoverable amounts due from policyholders. Under the terms of certain high deductible policies which we offer, such as workers' compensation and general liability, our customers are responsible to reimburse us for an agreed-upon dollar amount per claim. In nearly all cases we are required under such policies to pay covered claims first, and then seek reimbursement for amounts within the applicable deductible from our customers. We generally seek to mitigate this risk through collateral agreements.

Prior period development arises from changes to loss estimates recognized in the current year that relate to loss reserves first reported in previous calendar years and excludes the effect of losses from the development of earned premiums from previous accident years.

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

i) Future policy benefits

The valuation of long-duration contract reserves requires management to make estimates and assumptions regarding expenses, mortality, persistency, and investment yields. Estimates are primarily based on historical experience and include a margin for

adverse deviation. Interest rates used in calculating reserves range from less than 1.0 percent to 9.0 percent at December 31, 2020 compared to less than 1.0 percent to 11.0 percent at December 31, 2019. Actual results could differ materially from these estimates. Management monitors actual experience and where circumstances warrant, will revise assumptions and the related reserve estimates. Revisions are recorded in the period they are determined.

Certain of our long-duration contracts are supported by assets that do not qualify for separate account reporting under GAAP. These assets are classified as non-qualified separate account assets and reported in Other investments and the offsetting liabilities are reported in Future policy benefits in the Consolidated balance sheets. Changes in the fair value of separate account assets that do not qualify for separate account reporting under GAAP are reported in Other income (expense) and the offsetting movements in the liabilities are included in Policy benefits in the Consolidated statements of operations.

j) Assumed reinsurance programs involving minimum benefit guarantees under variable annuity contracts
Chubb reinsures various death and living benefit guarantees associated with variable annuities issued primarily in the United States. We generally receive a monthly premium during the accumulation phase of the covered annuities (in-force) based on a percentage of either the underlying accumulated account values or the underlying accumulated guaranteed values. Depending on an annuitant's age, the accumulation phase can last many years. To limit our exposure under these programs, all reinsurance treaties include annual or aggregate claim limits and many include an aggregate deductible.

The guarantees which are payable on death, referred to as guaranteed minimum death benefits (GMDB), principally cover shortfalls between accumulated account value at the time of an annuitant's death and either i) an annuitant's total deposits; ii) an annuitant's total deposits plus a minimum annual return; or iii) the highest accumulated account value attained at any policy anniversary date. In addition, a death benefit may be based on a formula specified in the variable annuity contract that uses a percentage of the growth of the underlying contract value. Liabilities for GMDBs are based on cumulative assessments or premiums to date multiplied by a benefit ratio that is determined by estimating the present value of benefit payments and related adjustment expenses divided by the present value of cumulative assessment or expected premiums during the contract period.

Under reinsurance programs covering GLBs, we assume the risk of guaranteed minimum income benefits (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. Our GLB reinsurance products meet the definition of a derivative for accounting purposes and are carried at fair value with changes in fair value recognized in Realized gains (losses) in the Consolidated statement of operations. Refer to Note 10 a) for additional information.

k) Deposit assets and liabilities
Deposit assets arise from ceded reinsurance contracts purchased that do not transfer significant underwriting or timing risk. Deposit liabilities include reinsurance deposit liabilities and contract holder deposit funds. The reinsurance deposit liabilities arise from contracts sold for which there is not a significant transfer of risk. Contract holder deposit funds represent a liability for investment contracts sold that do not meet the definition of an insurance contract, and certain of these contracts are sold with a guaranteed rate of return. Under deposit accounting, consideration received or paid is recorded as a deposit asset or liability in the balance sheet as opposed to recording premiums and losses in the statement of operations.

Interest income on deposit assets, representing the consideration received or to be received in excess of cash payments related to the deposit contract, is earned based on an effective yield calculation. The calculation of the effective yield is based on the amount and timing of actual cash flows at the balance sheet date and the estimated amount and timing of future cash flows. The effective yield is recalculated periodically to reflect revised estimates of cash flows. When a change in the actual or estimated cash flows occurs, the resulting change to the carrying amount of the deposit asset is reported as income or expense. Deposit assets of $107 million and $93 million at December 31, 2020 and 2019, respectively, are reflected in Other assets in the Consolidated balance sheets and the accretion of deposit assets related to interest pursuant to the effective yield calculation is reflected in Net investment income in the Consolidated statements of operations.

Deposit liabilities include reinsurance deposit liabilities of $86 million and $88 million and contract holder deposit funds of $2.2 billion and $2.0 billion at December 31, 2020 and 2019, respectively. Deposit liabilities are reflected in Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets. At contract inception, the deposit liability equals net cash received. An accretion rate is established based on actuarial estimates whereby the deposit liability is increased to the estimated amount payable over the contract term. The deposit accretion rate is the rate of return required to fund expected future payment obligations. We periodically reassess the estimated ultimate liability and related expected rate of

return. Changes to the deposit liability are generally reflected through Interest expense to reflect the cumulative effect of the period the contract has been in force, and by an adjustment to the future accretion rate of the liability over the remaining estimated contract term.

The liability for contract holder deposit funds equals accumulated policy account values, which consist of the deposit payments plus credited interest less withdrawals and amounts assessed through the end of the period.

l) Property and Equipment
Property and equipment used in operations are capitalized and carried at cost less accumulated depreciation and are reported within Other assets in the Consolidated balance sheets. At December 31, 2020, property and equipment totaled $2.0 billion, consisting principally of capitalized software costs of $1.3 billion incurred to develop or obtain computer software for internal use and company-owned facilities of $260 million. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets. For capitalized software, the estimated useful life is generally three to five years, but can be as long as 15 years and for company-owned facilities the estimated useful life is 40 years. At December 31, 2019, property and equipment totaled $1.9 billion.

m) Foreign currency remeasurement and translation
The functional currency for each of our foreign operations is generally the currency of the local operating environment. Transactions in currencies other than a foreign operation's functional currency are remeasured into the functional currency, and the resulting foreign exchange gains and losses are reflected in Net realized gains (losses) in the Consolidated statements of operations. Functional currency assets and liabilities are translated into the reporting currency, U.S. dollars, using period end exchange rates and the related translation adjustments are recorded as a separate component of AOCI in Shareholders' equity. Functional statement of operations amounts expressed in functional currencies are translated using average exchange rates.

n) Administrative expenses
Administrative expenses generally include all operating costs other than policy acquisition costs. The North America Commercial P&C Insurance segment manages and uses an in-house third-party claims administrator, ESIS Inc. (ESIS). ESIS performs claims management and risk control services for domestic and international organizations that self-insure P&C exposures as well as internal P&C exposures. The net operating income of ESIS is included within Administrative expenses in the Consolidated statements of operations and were $18 million, $47 million, and $49 million for the years ended December 31, 2020, 2019, and 2018, respectively.

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

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

p) Earnings per share
Basic earnings per share is calculated using the weighted-average shares outstanding, including participating securities with non-forfeitable rights to dividends such as unvested restricted stock. All potentially dilutive securities, including stock options are excluded from the basic earnings per share calculation. In calculating diluted earnings per share, the weighted-average shares outstanding is increased to include all potentially dilutive securities. Basic and diluted earnings per share are calculated by dividing net income by the applicable weighted-average number of shares outstanding during the year.

q) Share-based compensation
Chubb measures and records compensation cost for all share-based payment awards at grant-date fair value. Compensation costs are recognized for vesting of share-based payment awards with only service conditions on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award were, in substance, multiple awards. For retirement-eligible participants, compensation costs for certain share-based payment awards are recognized immediately at the date of grant. Refer to Note 12 for additional information.

r) Chubb integration expenses

Direct costs related to the Chubb Corp acquisition were expensed as incurred. Chubb integration expenses were nil, $23 million, and $59 million for the years ended December 31, 2020, 2019 and 2018, respectively, and include all internal and external costs directly related to the integration activities of the Chubb Corp acquisition. These expenses principally consisted of personnel-related expenses, consulting fees, and rebranding.

s) New accounting pronouncements

Adopted in 2020

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

Effective January 1, 2020, we adopted, on a modified retrospective basis, new guidance on the accounting for credit losses of financial instruments that are measured at amortized cost, including held to maturity securities, and reinsurance recoverables, by applying an approach based on the current expected credit losses (CECL). The estimate of expected credit losses considers historical information, current information, as well as reasonable and supportable forecasts, including estimates of prepayments. In addition, the guidance also replaced the current available for sale (AFS) security other-than-temporary impairment model by requiring an estimate of the expected credit loss (ECL) only when the fair value is below the amortized cost of the asset. The length of time the fair value of an AFS security has been below its amortized cost no longer impacts the determination of whether a potential credit loss exists. The AFS security model also requires the use of a valuation allowance as compared to the previous practice of writing down the asset.

In 2020, we recognized a cumulative effect adjustment and decreased beginning retained earnings by $79 million pre-tax, or $72 million after-tax, principally related to the valuation allowance for credit losses. We also adopted the required disclosures within Note 3 Investments and Note 5 Reinsurance. Results for reporting periods prior to January 1, 2020 are presented in accordance with the previous guidance.

Adopted in 2021

Income Taxes - Simplifying the Accounting for Income Taxes

Effective January 1, 2021, we adopted guidance which is intended to simplify the accounting for income taxes by removing several exceptions contained in existing guidance and amending other guidance. The adoption of the new guidance did not have a material effect on our results of operations or financial condition.

Accounting guidance not yet adopted

Effects of Reference Rate Reform on Financial Reporting

In March 2020, the FASB issued guidance which provides optional expedients and exceptions for applying GAAP to investments, derivatives, or other transactions that reference the London Interbank Offered Rate (LIBOR) or another reference rate expected to be discontinued because of reference rate reform. Along with the optional expedients, the amendments include a general principle that permits an entity to consider contract modifications due to reference reform to be an event that does not require contract re-measurement at the modification date or reassessment of a previous accounting determination. Additionally, a company may make a one-time election to sell, transfer, or both sell and transfer debt securities classified as held to maturity that reference a rate affected by reference rate reform and that were classified as held to maturity before January 1, 2020. This standard may be elected over time through December 31, 2022 as reference rate reform activities occur. Our exposure to LIBOR is limited and, accordingly, we do not expect reference rate reform to have a material impact on our Consolidated Financial Statements.

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 11 million customers in China.

In 2019, Chubb entered into agreements to acquire an additional 22.4 percent ownership in Huatai Group through two separate purchases, a 15.3 percent ownership interest for approximately $1.1 billion and a 7.1 percent ownership interest for approximately $493 million. On July 13, 2020, we completed the 15.3 percent purchase. The purchase of the additional 7.1 percent ownership interest is contingent upon important conditions.

In connection with these purchase agreements, we paid $1.6 billion, including a collateralized deposit for the 7.1 percent tranche, in 2020. These transactions are recorded within investing activities on the Consolidated statement of cash flows.

Separately, in November 2020, we completed the purchase of an incremental 0.9 percent ownership interest in Huatai Group for approximately $65 million.

As of December 31, 2020, 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. Refer to Note 14 for additional information. The Consolidated statements of operations include the equity income from the additional ownership interests as of each respective closing date. Upon completion of the 7.1 percent purchase, which will result in majority ownership of Huatai Group, Chubb is expected to obtain control of Huatai. At that time, Chubb is expected to apply consolidation accounting and discontinue the application of the equity method of accounting.

Prior year acquisition
Banchile Seguros de Vida

On December 30, 2019, we acquired Banchile Seguros de Vida, an insurance company providing both life and property and casualty coverages in Chile, for $74 million in cash. The results of this acquisition are included in the Overseas General Insurance and Life Insurance segments as appropriate, determined by the type of policy written.

3. Investments

a) Fixed maturities

Effective January 1, 2020, we adopted new accounting guidance that requires a valuation allowance for credit losses to be established for fixed maturity securities classified as held to maturity (HTM) or available for sale (AFS).

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

December 31, 2019 *(in millions of U.S. dollars)*	Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value	OTTI Recognized in AOCI
Available for sale					
U.S. Treasury / Agency	$ 3,188	$ 96	$ (1)	$ 3,283	$ —
Non-U.S.	22,670	1,099	(62)	23,707	(25)
Corporate and asset-backed securities	30,689	1,180	(78)	31,791	(5)
Mortgage-backed securities	18,712	494	(14)	19,192	—
Municipal	7,321	205	(11)	7,515	—
	$ 82,580	$ 3,074	$ (166)	$ 85,488	$ (30)
Held to maturity					
U.S. Treasury / Agency	$ 1,318	$ 29	$ —	$ 1,347	$ —
Non-U.S.	1,423	62	—	1,485	—
Corporate and asset-backed securities	2,349	121	(2)	2,468	—
Mortgage-backed securities	2,331	65	—	2,396	—
Municipal	5,160	150	(1)	5,309	—
	$ 12,581	$ 427	$ (3)	$ 13,005	$ —

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

December 31, 2020 (in millions of U.S. dollars)	Amortized cost	% of Total
AAA	$ 2,511	22 %
AA	6,193	53 %
A	2,138	18 %
BBB	826	7 %
BB	28	— %
Other	1	— %
Total	$ 11,697	100 %

The following table presents fixed maturities by contractual maturity:

	December 31 2020		December 31 2019	
(in millions of U.S. dollars)	Net Carrying Value	Fair Value	Amortized Cost	Fair Value
Available for sale				
Due in 1 year or less	$ 4,760	$ 4,760	$ 3,951	$ 3,973
Due after 1 year through 5 years	26,227	26,227	27,142	27,720
Due after 5 years through 10 years	27,232	27,232	23,901	24,874
Due after 10 years	14,010	14,010	8,874	9,729
	72,229	72,229	63,868	66,296
Mortgage-backed securities	18,470	18,470	18,712	19,192
	$ 90,699	$ 90,699	$ 82,580	$ 85,488
Held to maturity				
Due in 1 year or less	$ 1,231	$ 1,240	$ 478	$ 479
Due after 1 year through 5 years	3,592	3,760	3,869	3,940
Due after 5 years through 10 years	3,029	3,228	3,756	3,883
Due after 10 years	1,802	2,136	2,147	2,307
	9,654	10,364	10,250	10,609
Mortgage-backed securities	1,999	2,146	2,331	2,396
	$ 11,653	$ 12,510	$ 12,581	$ 13,005

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 December 31, 2020, 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 table presents, for AFS fixed maturities in an unrealized loss position (including securities on loan) that are not deemed to have credit losses, the aggregate fair value and gross unrealized loss by length of time the security has continuously been in an unrealized loss position:

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)**

The following table presents, for all securities in an unrealized loss position (including securities on loan), the aggregate fair value and gross unrealized loss by length of time the security has continuously been in an unrealized loss position:

December 31, 2019 (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
U.S. Treasury / Agency	$ 234	$ (1)	$ 339	$ —	$ 573	$ (1)
Non-U.S.	1,846	(34)	802	(28)	2,648	(62)
Corporate and asset-backed securities	2,121	(40)	988	(40)	3,109	(80)
Mortgage-backed securities	1,174	(6)	932	(8)	2,106	(14)
Municipal	188	—	276	(12)	464	(12)
Total fixed maturities	$ 5,563	$ (81)	$ 3,337	$ (88)	$ 8,900	$ (169)

c) Net realized gains (losses)

The following table presents a roll-forward of pre-tax credit losses related to fixed maturities for which a portion of OTTI was recognized in OCI:

(in millions of U.S. dollars)	Year Ended December 31 2019	2018
Balance of credit losses related to securities still held – beginning of year	$ 34	$ 22
Additions where no OTTI was previously recorded	33	20
Additions where an OTTI was previously recorded	4	5
Reductions for securities sold during the period	(41)	(13)
Balance of credit losses related to securities still held – end of year	$ 30	$ 34

The following table presents the components of Net realized gains (losses) and the change in net unrealized appreciation (depreciation) of investments:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Fixed maturities:			
OTTI on fixed maturities, gross	**$ —**	$ (90)	$ (52)
OTTI on fixed maturities recognized in OCI (pre-tax)	**—**	32	3
OTTI on fixed maturities, net	**—**	(58)	(49)
Gross realized gains excluding OTTI	**244**	203	334
Gross realized losses excluding OTTI	**(366)**	(176)	(587)
Recovery of expected credit losses	**11**	—	—
Impairment [1]	**(170)**	—	—
Total fixed maturities	**(281)**	(31)	(302)
Equity securities	**586**	104	(59)
Other investments	**(32)**	(20)	(5)
Foreign exchange gains (losses)	**(483)**	7	131
Investment and embedded derivative instruments	**81**	(435)	(75)
Fair value adjustments on insurance derivative	**(202)**	(4)	(248)
S&P futures	**(108)**	(138)	(4)
Other derivative instruments	**1**	(8)	(3)
Other	**(60)**	(5)	(87)
Net realized gains (losses) (pre-tax)	**$ (498)**	$ (530)	$ (652)
Change in net unrealized appreciation (depreciation) on investments (pre-tax):			
Fixed maturities available for sale	**$ 2,628**	$ 3,769	$ (1,958)
Fixed maturities held to maturity	**(24)**	(31)	(38)
Other	**(12)**	(3)	—
Income tax (expense) benefit	**(462)**	(647)	297
Change in net unrealized appreciation (depreciation) on investments (after-tax)	**$ 2,130**	$ 3,088	$ (1,699)

[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:

	Year Ended December 31, 2020			Year Ended December 31, 2019			Year Ended December 31, 2018		
(in millions of U.S. dollars)	**Equity Securities**	**Other Investments**	**Total**	Equity Securities	Other Investments	Total	Equity Securities	Other Investments	Total
Net gains (losses) recognized during the period	**$ 586**	**$ (32)**	**$ 554**	$ 104	$ (20)	$ 84	$ (59)	$ (5)	$ (64)
Less: Net gains (losses) recognized from sales of securities	**455**	**—**	**455**	58	(5)	53	70	121	191
Unrealized gains (losses) recognized for securities still held at reporting date	**$ 131**	**$ (32)**	**$ 99**	$ 46	$ (15)	$ 31	$ (129)	$ (126)	$ (255)

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

(in millions of U.S. dollars)	Year Ended December 31 2020
Available for sale	
Valuation allowance for expected credit losses - beginning of period	$ —
Impact of adoption of new accounting guidance	**25**
Provision for expected credit loss	**188**
Initial allowance for purchased securities with credit deterioration	**5**
Write-offs charged against the expected credit loss	**(5)**
Recovery of expected credit loss	**(193)**
Valuation allowance for expected credit losses - end of period	**$ 20**
Held to maturity	
Valuation allowance for expected credit losses - beginning of period	$ —
Impact of adoption of new accounting guidance	**44**
Provision for expected credit loss	**9**
Recovery of expected credit loss	**(9)**
Valuation allowance for expected credit losses - end of period	**$ 44**

Purchased Credit Deterioration (PCD) Securities
During the year ended December 31, 2020, we purchased $108 million of securities with credit deterioration, categorized as available for sale, and assessed an allowance for expected credit losses of $5 million at acquisition. These PCD securities had a par value at acquisition of $144 million.

d) Other investments

(in millions of U.S. dollars)	December 31 2020	2019
Alternative investments:		
Partially-owned investment companies	**$ 5,969**	$ 4,142
Limited partnerships	**547**	508
Investment funds	**254**	271
Alternative investments	**6,770**	4,921
Life insurance policies	**438**	377
Policy loans	**233**	247
Non-qualified separate account assets [1]	**316**	283
Other	**188**	234
Total	**$ 7,945**	$ 6,062

[1] Non-qualified separate account assets are comprised of mutual funds, supported by assets that do not qualify for separate account reporting under GAAP.

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:

		December 31 2020		December 31 2019	
(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**	**$ 673**	**$ 237**	$ 611	$ 329
Real Assets	**2 to 11 Years**	**805**	**598**	712	422
Distressed	**2 to 8 Years**	**358**	**970**	263	80
Private Credit	**3 to 8 Years**	**88**	**270**	104	272
Traditional	**2 to 14 Years**	**4,519**	**1,125**	2,844	2,160
Vintage	**1 to 2 Years**	**73**	**—**	116	—
Investment funds	**Not Applicable**	**254**	**—**	271	—
		$ 6,770	**$ 3,200**	$ 4,921	$ 3,263

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

Included in partially-owned investment companies and limited partnerships are 130 individual limited partnerships covering a broad range of investment strategies including large cap buyouts, specialist buyouts, growth capital, distressed, mezzanine, real estate, and co-investments. The underlying portfolio consists of various public and private debt and equity securities of publicly traded and privately held companies and real estate assets. The underlying investments across various partnerships, geographies, industries, asset types, and investment strategies provide risk diversification within the limited partnership portfolio and the overall investment portfolio.

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) Investments in partially-owned insurance companies

The following table presents Investments in partially-owned insurance companies:

(in millions of U.S. dollars, except for percentages)	December 31, 2020 Carrying Value	Goodwill	Direct Ownership Percentage	December 31, 2019 Carrying Value	Goodwill	Direct Ownership Percentage	Domicile
Huatai Group	**$ 2,461**	**$ 1,313**	**47 %**	$ 1,053	$ 460	31 %	China
Huatai Life Insurance Company	**201**	**69**	**20 %**	147	64	20 %	China
Freisenbruch-Meyer	**10**	**3**	**40 %**	10	3	40 %	Bermuda
Chubb Arabia Cooperative Insurance Company	**23**	**—**	**30 %**	20	—	30 %	Saudi Arabia
Russian Reinsurance Company	**4**	**—**	**23 %**	2	—	23 %	Russia
ABR Reinsurance Ltd.	**114**	**—**	**16 %**	100	—	12 %	Bermuda
Total	**$ 2,813**	**$ 1,385**		$ 1,332	$ 527		

Chubb's aggregate direct and indirect ownership in Huatai Life is approximately 57.5 percent, comprising 20 percent direct and 37.5 percent indirect ownership interest.

The table above excludes the 7.1 percent of additional ownership commitment in Huatai Group that is contingent upon important conditions. Refer to Note 2 for additional information.

f) Net investment income

(in millions of U.S. dollars)	Year Ended December 31 2020	2019	2018
Fixed maturities [1]	**$ 3,321**	$ 3,385	$ 3,128
Short-term investments	**48**	84	90
Other interest income	**19**	25	118
Equity securities	**81**	26	33
Other investments	**82**	78	104
Gross investment income [1]	**3,551**	3,598	3,473
Investment expenses	**(176)**	(172)	(168)
Net investment income [1]	**$ 3,375**	$ 3,426	$ 3,305
[1] Includes amortization expense related to fair value adjustment of acquired invested assets related to the Chubb Corp acquisition	**$ (116)**	$ (161)	$ (248)

g) 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 are investments, primarily fixed maturities, totaling $19.6 billion and $21.0 billion, and cash of $89 million and $109 million, at December 31, 2020 and 2019, respectively.

The following table presents the components of restricted assets:

(in millions of U.S. dollars)	December 31 2020	December 31 2019
Trust funds	$ 12,305	$ 14,004
Deposits with U.S. regulatory authorities	2,438	2,466
Deposits with non-U.S. regulatory authorities	2,905	2,709
Assets pledged under repurchase agreements	1,462	1,464
Other pledged assets	584	490
Total	$ 19,694	$ 21,133

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. Prior to 2020, a portion of the GLB liability that represented expected losses allocated to premiums received was recorded as incurred losses within Future policy benefits, with changes in these estimates recorded in Future policy benefits. We reclassified $441 million, $409 million, and $346 million of GLB liability as of December 31, 2019, 2018, and 2017, respectively, to Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets to conform with the new presentation. 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

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.

December 31, 2019 (in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total
Assets:				
Fixed maturities available for sale				
U.S. Treasury / Agency	$ 2,664	$ 619	$ —	$ 3,283
Non-U.S.	—	23,258	449	23,707
Corporate and asset-backed securities	—	30,340	1,451	31,791
Mortgage-backed securities	—	19,132	60	19,192
Municipal	—	7,515	—	7,515
	2,664	80,864	1,960	85,488
Equity securities	728	15	69	812
Short-term investments	2,803	1,482	6	4,291
Other investments [1]	412	377	10	799
Securities lending collateral	—	994	—	994
Investment derivative instruments	24	—	—	24
Other derivative instruments	2	—	—	2
Separate account assets	3,437	136	—	3,573
Total assets measured at fair value [1]	$ 10,070	$ 83,868	$ 2,045	$ 95,983
Liabilities:				
Investment derivative instruments	$ 93	$ —	$ —	$ 93
Other derivative instruments	13	—	—	13
GLB [2]	—	—	897	897
Total liabilities measured at fair value	$ 106	$ —	$ 897	$ 1,003

[1] Excluded from the table above are partially-owned investments, investment funds, and limited partnerships of $4,921 million and other investments of $95 million at December 31, 2019 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 at December 31 2020	Valuation Technique	Significant Unobservable Inputs	Ranges	Weighted Average [1]
GLB [2]	**$ 1,089**	**Actuarial model**	**Lapse rate**	**3% - 34%**	**4.7 %**
			Annuitization rate	**0% - 100%**	**3.6 %**

[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. In general, the base lapse function assumes low lapse rates during the surrender charge period of the GMIB contract, followed by a "spike" lapse rate in the year immediately following the surrender charge period, and then reverting to an ultimate lapse rate, typically over a 2-year period. This base rate is adjusted downward for policies with more valuable guarantees (policies with guaranteed values far in excess of their account values). Partial withdrawals and the impact of older policyholders with tax-qualified contracts (due to required minimum distributions) are also reflected in our modeling.

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. All GMIB reinsurance treaties include claim limits to protect Chubb in the event that actual annuitization behavior is significantly higher than expected. In general, Chubb assumes that GMIB annuitization rates will be higher for policies with more valuable guarantees (policies with guaranteed values far in excess of their account values). Chubb also assumes that GMIB annuitization rates increase as policyholders get older. In addition, we also assume that GMIB annuitization rates are higher in the first year immediately following the waiting period (the first year the policies are eligible to annuitize using the GMIB) in comparison to all subsequent years. We do not yet have fully credible annuitization experience for all clients.

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. In the fourth quarter of 2020, we completed a review of policyholder behavior related to annuitizations, partial withdrawals, lapses, and mortality for our variable annuity reinsurance business. As a result, we refined our policyholder behavior assumptions (mainly those relating to annuitizations and partial withdrawals), which had an insignificant impact on net income. During the year ended December 31, 2020, we also made routine model refinements to the internal valuation model which had an insignificant impact on net income.

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						
Year Ended December 31, 2020 (in millions of U.S. dollars)	Non-U.S.	Corporate and asset-backed securities	MBS	Equity securities	Short-term investments	Other investments	GLB [1]
Balance, beginning of year	$ 449	$ 1,451	$ 60	$ 69	$ 6	$ 10	$ 897
Transfers into Level 3	—	134	—	—	—	—	—
Transfers out of Level 3	(16)	(73)	(1)	(3)	—	—	—
Change in Net Unrealized Gains/Losses in OCI	19	(8)	—	—	—	—	—
Net Realized Gains/Losses	(1)	(30)	—	1	(1)	—	202
Purchases	274	708	2	23	14	—	—
Sales	(122)	(186)	—	(17)	(2)	—	—
Settlements	(57)	(423)	(1)	—	(12)	—	—
Other	—	—	—	—	—	—	(10)
Balance, end of year	$ 546	$ 1,573	$ 60	$ 73	$ 5	$ 10	$ 1,089
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	$ —	$ (5)	$ —	$ 4	$ —	$ —	$ 202
Change in Net Unrealized Gains/Losses included in OCI at the Balance Sheet Date	$ 16	$ (6)	$ —	$ —	$ —	$ —	$ —

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

Year Ended December 31, 2019 (in millions of U.S. dollars)	Available-for-Sale Debt Securities			Assets			Liabilities
	Non-U.S.	Corporate and asset-backed securities	MBS	Equity securities	Short-term investments	Other investments	GLB [1]
Balance, beginning of year	$ 345	$ 1,299	$ 61	$ 57	$ 1	$ 11	$ 861
Transfers into Level 3	11	23	—	—	—	—	—
Transfers out of Level 3	(24)	(38)	(16)	—	—	—	—
Change in Net Unrealized Gains/Losses in OCI	13	(2)	—	1	—	—	—
Net Realized Gains/Losses	(1)	(4)	—	(2)	—	—	4
Purchases	228	577	19	34	6	—	—
Sales	(70)	(125)	(1)	(21)	—	—	—
Settlements	(53)	(279)	(3)	—	(1)	(1)	—
Other	—	—	—	—	—	—	32
Balance, end of year	$ 449	$ 1,451	$ 60	$ 69	$ 6	$ 10	$ 897
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	$ —	$ (2)	$ —	$ (3)	$ —	$ —	$ 4
Change in Net Unrealized Gains/Losses included in OCI at the Balance Sheet Date	$ 7	$ (8)	$ —	$ —	$ —	$ —	$ —

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

Year Ended December 31, 2018 (in millions of U.S. dollars)	Available-for-Sale Debt Securities			Assets			Liabilities	
	Non-U.S.	Corporate and asset-backed securities	MBS	Equity securities	Short-term investments	Other investments	Other derivative instruments	GLB [1]
Balance, beginning of year	$ 93	$ 1,037	$ 78	$ 44	$ —	$ 263	$ 2	$ 550
Transfers into Level 3	13	24	1	—	5	—	—	—
Transfers out of Level 3	(2)	(31)	(3)	—	—	(252)	—	—
Change in Net Unrealized Gains/Losses in OCI	(12)	(4)	—	(2)	—	(2)	—	—
Net Realized Gains/Losses	(3)	(5)	—	6	—	1	(2)	248
Purchases	334	672	5	37	9	50	—	—
Sales	(69)	(164)	—	(28)	—	—	—	—
Settlements	(9)	(230)	(20)	—	(13)	(49)	—	—
Other	—	—	—	—	—	—	—	63
Balance, end of year	$ 345	$ 1,299	$ 61	$ 57	$ 1	$ 11	$ —	$ 861
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	$ (1)	$ (7)	$ —	$ (1)	$ —	$ 1	$ —	$ 248

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.

Investments in partially-owned insurance companies
Fair values for investments in partially-owned insurance companies are based on Chubb's share of the net assets based on the financial statements provided by those companies and are excluded from the valuation hierarchy tables below.

Short- and long-term debt, repurchase agreements, and trust preferred securities
Where practical, fair values for short-term debt, long-term debt, repurchase agreements, and trust preferred securities are estimated using discounted cash flow calculations based principally on observable inputs including incremental borrowing rates, which reflect Chubb's credit rating, for similar types of borrowings with maturities consistent with those remaining for the debt being valued.

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

December 31, 2020				Fair Value	Net Carrying
(in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total	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
Short-term debt	—	—	—	—	—
Long-term debt	—	17,487	—	17,487	14,948
Trust preferred securities	—	473	—	473	308
Total liabilities	$ —	$ 19,365	$ —	$ 19,365	$ 16,661

December 31, 2019				Fair Value	
(in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total	Carrying Value
Assets:					
Fixed maturities held to maturity					
U.S. Treasury / Agency	$ 1,292	$ 55	$ —	$ 1,347	$ 1,318
Non-U.S.	—	1,485	—	1,485	1,423
Corporate and asset-backed securities	—	2,436	32	2,468	2,349
Mortgage-backed securities	—	2,396	—	2,396	2,331
Municipal	—	5,309	—	5,309	5,160
Total assets	$ 1,292	$ 11,681	$ 32	$ 13,005	$ 12,581
Liabilities:					
Repurchase agreements	$ —	$ 1,416	$ —	$ 1,416	$ 1,416
Short-term debt	—	1,307	—	1,307	1,299
Long-term debt	—	15,048	—	15,048	13,559
Trust preferred securities	—	467	—	467	308
Total liabilities	$ —	$ 18,238	$ —	$ 18,238	$ 16,582

5. Reinsurance

a) Consolidated reinsurance

Chubb purchases reinsurance to manage various exposures including catastrophe risks. Although reinsurance agreements contractually obligate Chubb's reinsurers to reimburse it for the agreed-upon portion of its gross paid losses, they do not discharge Chubb's primary liability. The amounts for net premiums written and net premiums earned in the Consolidated statements of operations are net of reinsurance. The following table presents direct, assumed, and ceded premiums:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Premiums written			
Direct	**$ 37,749**	$ 36,848	$ 34,782
Assumed	**3,512**	3,276	3,186
Ceded	**(7,441)**	(7,849)	(7,389)
Net	**$ 33,820**	$ 32,275	$ 30,579
Premiums earned			
Direct	**$ 37,037**	$ 35,876	$ 34,108
Assumed	**3,323**	3,107	3,175
Ceded	**(7,243)**	(7,693)	(7,219)
Net	**$ 33,117**	$ 31,290	$ 30,064

Ceded losses and loss expenses incurred were $5.0 billion, $4.9 billion, and $5.6 billion for the years ended December 31, 2020, 2019, and 2018, respectively.

b) Reinsurance recoverable on ceded reinsurance

	December 31, 2020		December 31, 2019	
(in millions of U.S. dollars)	**Net Reinsurance Recoverable** [1]	**Valuation allowance**	Net Reinsurance Recoverable [1]	Valuation allowance
Reinsurance recoverable on unpaid losses and loss expenses	**$ 14,647**	**$ 257**	$ 14,181	$ 240
Reinsurance recoverable on paid losses and loss expenses	**945**	**57**	1,000	76
Reinsurance recoverable on losses and loss expenses	**$ 15,592**	**$ 314**	$ 15,181	$ 316
Reinsurance recoverable on policy benefits	**$ 206**	**$ 5**	$ 197	$ 4

[1] Net of valuation allowance for uncollectible reinsurance.

The increase in reinsurance recoverable on losses and loss expenses in 2020 was primarily due to catastrophe losses, partially offset by crop activity and prior period development.

We evaluate the financial condition of our reinsurers and potential reinsurers on a regular basis and also monitor concentrations of credit risk with reinsurers. The valuation allowance for uncollectible reinsurance is required principally due to the potential failure of reinsurers to indemnify Chubb, primarily because of disputes under reinsurance contracts and insolvencies. We have established a valuation allowance for amounts estimated to be uncollectible on both unpaid and paid losses as well as future policy benefits. Refer to Note 1 d) for a discussion of the valuation allowance methodology.

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)	**Year Ended December 31, 2020**
Valuation allowance for uncollectible reinsurance - beginning of period	**$ 316**
Provision for uncollectible reinsurance	**21**
Write-offs charged against the valuation allowance	**(25)**
Foreign exchange revaluation	**2**
Valuation allowance for uncollectible reinsurance - end of period	**$ 314**

The following tables present a listing, at December 31, 2020, of the categories of Chubb's reinsurers:

December 31, 2020 (in millions of U.S. dollars, except for percentages)	Gross Reinsurance Recoverable on Loss and Loss Expenses	Valuation allowance for Uncollectible Reinsurance	% of Gross Reinsurance Recoverable
Categories			
Largest reinsurers	**$ 7,267**	**$ 88**	**1.2 %**
Other reinsurers rated A- or better	**4,901**	**58**	**1.2 %**
Other reinsurers rated lower than A- or not rated	**466**	**64**	**13.7 %**
Pools	**366**	**14**	**3.8 %**
Structured settlements	**521**	**11**	**2.1 %**
Captives	**2,107**	**11**	**0.5 %**
Other	**278**	**68**	**24.5 %**
Total	**$ 15,906**	**$ 314**	**2.0 %**

Largest Reinsurers

ABR Reinsurance Capital Holdings	HDI Group (Hannover Re)	Munich Re Group	Swiss Re Group
Berkshire Hathaway Insurance Group	Lloyd's of London	Partner Re Group	

Categories of Chubb's reinsurers	Comprises:
Largest reinsurers	• All groups of reinsurers or captives where the gross recoverable exceeds one percent of Chubb's total shareholders' equity.
Other reinsurers rated A- or better	• All reinsurers rated A- or better that were not included in the largest reinsurer category.
Other reinsurers rated lower than A- or not rated	• All reinsurers rated lower than A- or not rated that were not included in the largest reinsurer category.
Pools	• Related to Chubb's voluntary pool participation and Chubb's mandatory pool participation required by law in certain states.
Structured settlements	• Annuities purchased from life insurance companies to settle claims. Since we retain ultimate liability in the event that the life company fails to pay, we reflect the amounts as both a liability and a recoverable/receivable for GAAP purposes.
Captives	• Companies established and owned by our insurance clients to assume a significant portion of their direct insurance risk from Chubb; structured to allow clients to self-insure a portion of their reinsurance risk. It generally is our policy to obtain collateral equal to expected losses. Where appropriate, exceptions are granted but only with review and approval at a senior officer level. Excludes captives included in the largest reinsurer category.
Other	• Amounts recoverable that are in dispute or are from companies that are in supervision, rehabilitation, or liquidation.

The valuation allowance for uncollectible reinsurance is principally based on an analysis of the credit quality of the reinsurer and collateral balances. We establish the valuation allowance for uncollectible reinsurance for the Other category based on a case-by-case analysis of individual situations including the merits of the underlying matter, credit and collateral analysis, and consideration.

6. Goodwill and Other intangible assets

Goodwill

The following table presents a roll-forward of Goodwill by segment:

(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	Chubb Consolidated
Balance at December 31, 2018	$ 6,946	$ 2,230	$ 134	$ 4,770	$ 371	$ 820	$ 15,271
Foreign exchange revaluation and other	9	4	—	15	—	(3)	25
Balance at December 31, 2019	$ 6,955	$ 2,234	$ 134	$ 4,785	$ 371	$ 817	$ 15,296
Acquisition of Banchile Seguros de Vida	—	—	—	**16**	—	**28**	**44**
Foreign exchange revaluation and other	**17**	**6**	—	**35**	—	**2**	**60**
Balance at December 31, 2020	**$ 6,972**	**$ 2,240**	**$ 134**	**$ 4,836**	**$ 371**	**$ 847**	**$ 15,400**

Other intangible assets

Other intangible assets at December 31, 2020 and 2019 were $5,811 million and $6,063 million, respectively, principally acquired from the Chubb Corp acquisition. Other intangible assets in 2020 and 2019 comprised $2,846 million and $3,114 million, respectively, that are subject to amortization, principally agency distribution relationships and renewal rights, and $2,965 million and $2,949 million, respectively, that are not subject to amortization, principally trademarks. Amortization expense related to purchased intangibles was $290 million, $305 million, and $339 million for the years ended December 31, 2020, 2019, and 2018, principally related to agency distribution relationships and renewal rights.

The following table presents, as of December 31, 2020, the expected estimated pre-tax amortization expense (benefit) of purchased intangibles, at current foreign currency exchange rates, for 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 expense [1]	Total	Other intangible assets	Total Amortization of purchased intangibles
2021	$ 217	$ (20)	$ 197	$ 89	$ 286
2022	197	(14)	183	101	284
2023	178	(7)	171	96	267
2024	160	(6)	154	90	244
2025	145	(6)	139	89	228
Total	$ 897	$ (53)	$ 844	$ 465	$ 1,309

[1] In connection with the Chubb Corp acquisition, we recorded an increase to Unpaid losses and loss expenses acquired to adjust the carrying value of Chubb Corp's historical Unpaid losses and loss expenses to fair value as of the acquisition date. This fair value adjustment amortizes through Amortization of purchased intangibles on the Consolidated statements of operations through the year 2032. The balance of the fair value adjustment on Unpaid losses and loss expense was $110 million and $145 million at December 31, 2020 and 2019, respectively. Refer to Note 1(h) for additional information.

VOBA

The following table presents a roll-forward of VOBA:

(in millions of U.S. dollars)	2020	2019	2018
Balance, beginning of year	**$ 306**	$ 295	$ 326
Amortization of VOBA [1]	**(27)**	(24)	(25)
Foreign exchange revaluation and other	**(16)**	35	(6)
Balance, end of year	**$ 263**	$ 306	$ 295

[1] Recognized in Policy acquisition costs in the Consolidated statements of operations.

The following table presents, as of December 31, 2020, the expected estimated pre-tax amortization expense related to VOBA for the next five years at current foreign exchange rates:

For the Years Ending December 31 (in millions of U.S. dollars)	VOBA
2021	$ 22
2022	21
2023	19
2024	17
2025	16
Total	$ 95

7. Unpaid losses and loss expenses

Chubb establishes reserves for the estimated unpaid ultimate liability for losses and loss expenses under the terms of its policies and agreements. Reserves include estimates for both claims that have been reported and for IBNR claims, and include estimates of expenses associated with processing and settling these claims. Reserves are recorded in Unpaid losses and loss expenses in the consolidated balance sheets. While we believe that our reserves for unpaid losses and loss expenses at December 31, 2020 are adequate, new information or trends may lead to future developments in incurred loss and loss expenses significantly greater or less than the reserves provided. Any such revisions could result in future changes in estimates of losses or reinsurance recoverable and would be reflected in our results of operations in the period in which the estimates are changed.

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

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Gross unpaid losses and loss expenses, beginning of year	**$ 62,690**	$ 62,960	$ 63,179
Reinsurance recoverable on unpaid losses [1]	**(14,181)**	(14,689)	(14,014)
Net unpaid losses and loss expenses, beginning of year	**48,509**	48,271	49,165
Net losses and loss expenses incurred in respect of losses occurring in:			
Current year	**22,124**	19,575	19,048
Prior years [2]	**(414)**	(845)	(981)
Total	**21,710**	18,730	18,067
Net losses and loss expenses paid in respect of losses occurring in:			
Current year	**7,782**	7,894	7,544
Prior years	**9,652**	10,579	10,796
Total	**17,434**	18,473	18,340
Foreign currency revaluation and other	**379**	(19)	(621)
Net unpaid losses and loss expenses, end of year	**53,164**	48,509	48,271
Reinsurance recoverable on unpaid losses [1]	**14,647**	14,181	14,689
Gross unpaid losses and loss expenses, end of year	**$ 67,811**	$ 62,690	$ 62,960

[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 $19 million, $53 million, and $85 million for 2020, 2019, and 2018, respectively.

The increase in gross and net unpaid losses and loss expense in 2020 was driven by catastrophe losses incurred, principally from the COVID-19 pandemic. The increase in net unpaid losses and loss expense in 2019 reflected an increase in underlying reserves, offset by favorable prior period development and payments related to catastrophic events.

The loss development tables under section c) below, present Chubb's historical incurred and paid claims development by broad product line through December 31, 2020, net of reinsurance, as well as the cumulative number of reported claims, IBNR balances, and other supplementary information.

The following table presents a reconciliation of the loss development tables to the liability for unpaid losses and loss expenses in the consolidated balance sheet:

Reconciliation of Reserve Balances to Liability for Unpaid Loss and Loss Expenses

(in millions of U.S. dollars)		December 31, 2020
Presented in the loss development tables:		
North America Commercial P&C Insurance — Workers' Compensation	$	**9,600**
North America Commercial P&C Insurance — Liability		**17,441**
North America Commercial P&C Insurance — Other Casualty		**2,124**
North America Commercial P&C Insurance — Non-Casualty		**2,491**
North America Personal P&C Insurance		**3,025**
Overseas General Insurance — Casualty		**6,832**
Overseas General Insurance — Non-Casualty		**2,725**
Global Reinsurance — Casualty		**1,200**
Global Reinsurance — Non-Casualty		**312**
Excluded from the loss development tables:		
Other		**4,742**
Net unpaid loss and allocated loss adjustment expense		**50,492**
Ceded unpaid loss and allocated loss adjustment expense:		
North America Commercial P&C Insurance — Workers' Compensation	$	**1,461**
North America Commercial P&C Insurance — Liability		**5,743**
North America Commercial P&C Insurance — Other Casualty		**564**
North America Commercial P&C Insurance — Non-Casualty		**1,380**
North America Personal P&C Insurance		**141**
Overseas General Insurance — Casualty		**2,426**
Overseas General Insurance — Non-Casualty		**1,686**
Global Reinsurance — Casualty		**29**
Global Reinsurance — Non-Casualty		**104**
Other		**1,153**
Ceded unpaid loss and allocated loss adjustment expense		**14,687**
Unpaid loss and loss expense on other than short-duration contracts [1]		**1,109**
Unpaid unallocated loss adjustment expenses		**1,523**
Unpaid losses and loss expenses	$	**67,811**

[1] Primarily includes the claims reserve of our International A&H business and Life Insurance segment reserves.

Business excluded from the loss development tables

"Other" shown in the reconciliation table comprises businesses excluded from the loss development tables:

- North America Agricultural Insurance segment business, which is short-tailed with the majority of the liabilities expected to be resolved in the ensuing twelve months;
- Corporate, which includes run-off liabilities such as asbestos and environmental and other mass tort exposures and which impact accident years older than those shown in the loss development tables below;
- Life Insurance segment business, which is generally written using long-duration contracts; and
- Certain subsets of our business due to data limitations or unsuitability to the loss development table presentation, including:
    - We underwrite loss portfolio transfers at various times; by convention, all premium and losses associated with these transactions are recorded to the policy period of the transaction, even though the accident dates of the claims covered may be a decade or more in the past. We also underwrite certain high attachment, high limit, multiple-line and excess of aggregate coverages for large commercial clients. Changes in incurred loss and cash flow patterns are volatile and sufficiently different from those of typical insureds. This category includes the loss portfolio transfer of Fireman's Fund personal lines run-off liabilities and Alternative Risk Solutions business within the North America Commercial P&C Insurance segment;
    - 2015 and prior paid history on a subset of previously acquired international businesses, within the Overseas General Insurance segment, due to limitations on the data prior to the acquisition;
    - Reinsurance recoverable bad debt; and
    - Purchase accounting adjustments related to unpaid losses and loss expenses for Chubb Corp.

a) Description of Reserving Methodologies

Our recorded reserves represent management's best estimate of the provision for unpaid claims as of the balance sheet date. The process of establishing loss and loss expense reserves can be complex and is subject to considerable uncertainty as it requires the use of estimates and judgments based on circumstances underlying the insured loss at the date of accrual. The reserves for our various product lines each require different qualitative and quantitative assumptions and judgments to be made. Management's best estimate is developed after collaboration with actuarial, underwriting, claims, legal, and finance departments and culminates with the input of reserve committees. Each business unit reserve committee includes the participation of the relevant parties from actuarial, finance, claims, and unit senior management and has the responsibility for finalizing, recommending and approving the estimate to be used as management's best estimate. Reserves are further reviewed by Chubb's Chief Actuary and senior management. The objective of such a process is to determine a single estimate that we believe represents a better estimate than any other and which is viewed by management to be the best estimate of ultimate loss settlements.

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

- nature and complexity of underlying coverage provided and net limits of exposure provided;
- segmentation of data to provide sufficient homogeneity and credibility for loss projection methods;
- extent of credible internal historical loss data and reliance upon industry information as required;
- historical variability of actual loss emergence compared with expected loss emergence;
- reported and projected loss trends;
- extent of emerged loss experience relative to the remaining expected period of loss emergence;
- rate monitor information for new and renewal business;
- changes in claims handling practice;
- inflation;
- the legal environment;
- facts and circumstances of large claims;
- terms and conditions of the contracts sold to our insured parties;
- impact of applicable reinsurance recoveries; and
- nature and extent of underlying assumptions.

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

We perform an actuarial reserve review for each product line at least once a year. For most product lines, one or more standard actuarial reserving methods may be used to determine estimates of ultimate losses and loss expenses, and from these estimates, a single actuarial central estimate is selected. The actuarial central estimate is an input to the reserve committee process described above. For the few product lines that do not lend themselves to standard actuarial reserving methods, appropriate techniques are applied to produce the actuarial central estimates. For example, run-off asbestos and environmental liability estimates are better suited to the application of account-specific exposure-based analyses to best evaluate their associated aggregate reserve levels.

b) Standard actuarial reserving methods
The judgments involved in projecting the ultimate losses include the use and interpretation of various standard actuarial reserving methods that place reliance on the extrapolation of actual historical data, loss development patterns, industry data, and other benchmarks as appropriate.

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

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

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

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

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

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

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

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

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

Each table follows a similar format and reflects the following:

- The incurred loss triangle includes both reported case reserves and IBNR liabilities.
- Both the incurred and paid loss triangles include allocated loss adjustment expense (i.e., defense and investigative costs particular to individual claims) but exclude unallocated loss adjustment expense (i.e., the costs associated with internal claims staff and third-party administrators).
- The amounts in both triangles for the years ended December 31, 2011 to December 31, 2019 and average historical claim duration as of December 31, 2020, are presented as supplementary information.
- All data presented in the triangles is net of reinsurance recoverables.
- The IBNR reserves shown to the right of each incurred loss development exhibit reflect the net IBNR recorded as of December 31, 2020.

- The tables are presented retrospectively with respect to acquisitions where these are material and doing so is practicable. Most notably, the Chubb Corp acquisition is presented retrospectively. The unaudited consolidated data is presented solely for informational purposes and is not necessarily indicative of the consolidated data that might have been observed had the transactions been completed prior to the date indicated.

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

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

Cumulative Number of Reported Claims
Reported claim counts, on a cumulative basis, are provided to the far right of each incurred loss development table. In our North America segments, we generally consider a reported claim to be one claim per coverage per claimant. For our North America segments, we refined our claim count methodology in 2020 for our U.S. operations. For workers' compensation, we moved from including losses below the deductible in our reported claims to excluding them. This reduction in reported claims aligns claim counts to the portion of the claims to which Chubb has incurred losses, which we view as a more meaningful presentation. For non-casualty, personal and liability, we aligned our claim count methodology to reflect a reported claim per claimant, per coverage basis, and including all reported claims with either an indemnity or expense transaction. These changes resulted in fewer reported claims in non-casualty and additional reported claims in personal and liability. In our Overseas General Insurance segment, we generally consider a reported claim to be on a per occurrence basis. Global Reinsurance segment's portfolio comprises a mix of proportional and non-proportional treaties. The proportional treaties are reported on a bulk basis and do not lend themselves to meaningful claim count data. As such, we do not provide claim count information for our Global Reinsurance segment.

We exclude claims closed without payment. Claims are counted on a direct basis without consideration of ceded reinsurance. Use of the presented claim counts in analysis of company experience has significant limitations, including:

- Claims for certain events and/or product lines, such as portions of our A&H business, are not reported on an individual basis, but rather in bulk and thus not available for inclusion in this disclosure.
- Each segment typically has a mixture of primary and excess experience which has shifted over time.
- Captive business, especially in Workers' Compensation and Liability, largely represents fronted business where our net exposure to loss is minimal; however, since the claim count is based on direct claims, there is a mismatch between direct claims and net loss dollars, the extent of which varies by accident year.

Reported claim counts include open claims which have case reserves but exclude claims that have been incurred but not reported. As such the reported claims are not consistent with the incurred losses in the triangle, which include incurred but not reported losses. One can calculate reported losses by subtracting incurred but not reported losses from incurred losses in the triangle. Reported claim counts are also inconsistent with losses in the paid loss triangle, since reported counts would include claims with case reserves but no payments to date.

North America Commercial P&C Insurance — Workers' Compensation — Long-tail
This product line has a substantial geographic spread and a broad mix across industries. Types of coverage include risk management business predominantly with high deductible policies, loss sensitive business (i.e., retrospectively-rated policies), business fronted for captives, as well as excess and primary guaranteed cost coverages.

The triangle below shows all loss and allocated expense development for the workers' compensation product line. In our prior period development disclosure, we exclude any loss development where there is a directly related premium adjustment. For workers' compensation, changes in the exposure base due to payroll audits will drive changes in ultimate losses. In addition, we record involuntary pool assumptions (premiums and losses) on a lagged basis. Both of these items will influence the development in the triangle, particularly the first prior accident year, and are included in the reconciliation table presented on page F-58.

North America Commercial P&C Insurance — Workers' Compensation — Long-tail (continued)
Net Incurred Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31 Unaudited										As of December 31 2020	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$1,037	$1,030	$1,046	$1,049	$1,053	$1,022	$1,012	$1,009	$ 988	**$ 973**	**$ 208**	**45**
2012		1,050	1,011	1,030	1,040	1,011	989	986	977	**953**	**234**	**44**
2013			1,109	1,108	1,122	1,127	1,086	1,073	1,037	**1,014**	**280**	**43**
2014				1,207	1,201	1,217	1,215	1,163	1,100	**1,073**	**347**	**45**
2015					1,282	1,259	1,276	1,279	1,217	**1,154**	**419**	**50**
2016						1,367	1,361	1,383	1,378	**1,269**	**530**	**51**
2017							1,413	1,380	1,399	**1,393**	**723**	**50**
2018								1,359	1,361	**1,379**	**709**	**51**
2019									1,391	**1,384**	**767**	**47**
2020										**1,367**	**1,086**	**24**
Total										**$11,959**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31 Unaudited									
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 119	$ 294	$ 411	$ 484	$ 533	$ 567	$ 595	$ 616	$ 640	**$ 654**
2012		111	271	365	436	486	532	574	592	**612**
2013			107	286	422	506	553	587	616	**633**
2014				113	295	410	484	532	566	**599**
2015					116	301	418	501	564	**606**
2016						122	326	452	529	**584**
2017							120	313	437	**516**
2018								130	329	**451**
2019									143	**341**
2020										**111**
Total										**$ 5,107**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ 2,748**
Accident years 2011 - 2020 from tables above	**6,852**
All Accident years	**$ 9,600**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ (94)**
Accident years 2011 - 2020 from tables above	**(256)**
All Accident years	**$ (350)**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	10 %	16 %	10 %	7 %	5 %	4 %	3 %	2 %	2 %	1 %

North America Commercial P&C Insurance — Liability — Long-tail

This line consists of primary and excess liability exposures, including medical liability and professional lines, including directors and officers (D&O) liability, errors and omissions (E&O) liability, employment practices liability (EPL), fidelity bonds, and fiduciary liability.

The primary and excess liability business represents the largest part of these exposures. The former includes both monoline and commercial package liability. The latter includes a substantial proportion of commercial umbrella, excess and high excess business, where loss activity can produce significant volatility in the loss triangles at later ages within an accident year (and sometimes across years) due to the size of the limits afforded and the complex nature of the underlying losses.

This line includes management and professional liability products provided to a wide variety of clients, from national accounts to small firms along with private and not-for-profit organizations, distributed through brokers, agents, wholesalers and MGAs. Many of these coverages, particularly D&O and E&O, are typically written on a claims-made form. While most of the coverages are underwritten on a primary basis, there are significant amounts of excess exposure with large policy limits.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									As of December 31 2020	
(in millions of U.S. dollars)									Unaudited		
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$3,500	$3,586	$3,630	$3,665	$3,593	$3,498	$3,384	$3,316	$3,193	**$ 3,143**	**$ 226**	**25**
2012		3,552	3,628	3,613	3,565	3,524	3,426	3,331	3,235	**3,235**	**353**	**25**
2013			3,547	3,542	3,543	3,533	3,430	3,216	3,122	**2,964**	**317**	**25**
2014				3,535	3,586	3,674	3,717	3,656	3,470	**3,346**	**572**	**25**
2015					3,560	3,709	3,819	3,976	3,943	**3,736**	**855**	**27**
2016						3,534	3,595	3,692	3,805	**3,799**	**962**	**27**
2017							3,322	3,499	3,581	**3,631**	**1,475**	**27**
2018								3,375	3,494	**3,696**	**1,737**	**28**
2019									3,452	**3,628**	**2,381**	**28**
2020										**4,098**	**3,695**	**24**
Total										**$35,276**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)									Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 160	$ 652	$ 1,209	$ 1,805	$ 2,214	$ 2,477	$ 2,659	$ 2,741	$ 2,827	**$ 2,863**
2012		166	656	1,172	1,680	2,092	2,326	2,502	2,619	**2,688**
2013			130	548	1,192	1,597	2,007	2,232	2,374	**2,465**
2014				164	679	1,250	1,804	2,202	2,442	**2,584**
2015					138	605	1,206	1,856	2,291	**2,533**
2016						171	663	1,336	1,975	**2,334**
2017							161	617	1,162	**1,701**
2018								190	754	**1,303**
2019									176	**671**
2020										**152**
Total										**$ 19,294**

North America Commercial P&C Insurance — Liability — Long-tail (continued)

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ 1,459
Accident years 2011 - 2020 from tables above	15,982
All Accident years	$ 17,441

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ (176)
Accident years 2011 - 2020 from tables above	(117)
All Accident years	$ (293)

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	5 %	14 %	17 %	16 %	12 %	7 %	5 %	3 %	2 %	1 %

North America Commercial P&C Insurance — Other Casualty — Long-tail

This product line consists of the remaining commercial casualty coverages such as automobile liability and aviation. There is also a small portion of commercial multi-peril (CMP) business in accident years 2014 and prior. The paid and reported data are impacted by some catastrophe loss activity primarily on the CMP exposures just noted.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)	Unaudited											
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Net IBNR Reserves	Reported Claims (in thousands)
2011	$ 581	$ 590	$ 581	$ 549	$ 533	$ 525	$ 517	$ 511	$ 513	$ 503	$ 13	16
2012		634	606	577	561	520	519	509	507	505	2	16
2013			527	531	523	516	469	462	462	458	21	18
2014				595	583	581	597	555	539	539	25	17
2015					487	470	502	515	458	455	35	15
2016						504	502	527	524	481	61	16
2017							532	566	577	616	118	17
2018								536	564	575	198	17
2019									606	637	284	16
2020										646	517	9
Total										$ 5,415		

North America Commercial P&C Insurance — Other-Casualty — Long-tail (continued)

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31								Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 86	$ 235	$ 341	$ 400	$ 437	$ 461	$ 466	$ 480	$ 486	**$ 486**
2012		69	223	320	387	435	470	487	493	**502**
2013			69	197	271	348	385	411	419	**426**
2014				80	220	318	391	455	474	**501**
2015					47	137	215	305	371	**395**
2016						52	146	246	323	**374**
2017							66	175	313	**381**
2018								74	169	**270**
2019									70	**190**
2020										**53**
Total										**$ 3,578**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ 287**
Accident years 2011 - 2020 from tables above	**1,837**
All Accident years	**$ 2,124**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ 23**
Accident years 2011 - 2020 from tables above	**19**
All Accident years	**$ 42**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	12 %	23 %	19 %	14 %	10 %	5 %	3 %	2 %	1 %	— %

North America Commercial P&C Insurance — Non-Casualty — Short-tail

This product line represents first party commercial product lines that are short-tailed in nature, such as property, inland marine, ocean marine, surety and A&H. There is a wide diversity of products, primary and excess coverages, and policy sizes. During this ten-year period, this product line was also impacted by natural catastrophes mainly in the 2012, 2017, and 2018 accident years.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)									Unaudited			
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$1,960	$1,934	$1,877	$1,856	$1,835	$1,840	$1,835	$1,835	$1,835	**$ 1,833**	**$ 4**	**416**
2012		2,033	1,916	1,883	1,864	1,859	1,847	1,844	1,850	**1,844**	**(8)**	**426**
2013			1,434	1,424	1,337	1,360	1,340	1,340	1,338	**1,344**	**7**	**455**
2014				1,643	1,661	1,579	1,559	1,549	1,550	**1,558**	**10**	**483**
2015					1,736	1,745	1,650	1,638	1,605	**1,589**	**(1)**	**545**
2016						1,911	1,890	1,799	1,782	**1,818**	**32**	**650**
2017							2,704	2,608	2,505	**2,522**	**51**	**763**
2018								2,053	2,240	**2,175**	**71**	**901**
2019									2,052	**2,037**	**166**	**1,036**
2020										**3,150**	**1,061**	**927**
Total										**$ 19,870**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)									Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 939	$ 1,574	$ 1,718	$ 1,777	$ 1,787	$ 1,811	$ 1,816	$ 1,821	$ 1,825	**$ 1,830**
2012		715	1,577	1,698	1,767	1,795	1,822	1,816	1,842	**1,844**
2013			651	1,138	1,238	1,285	1,311	1,324	1,333	**1,335**
2014				820	1,374	1,484	1,506	1,532	1,546	**1,554**
2015					727	1,343	1,488	1,556	1,572	**1,574**
2016						846	1,504	1,656	1,733	**1,761**
2017							979	2,087	2,303	**2,394**
2018								1,027	1,825	**2,018**
2019									1,030	**1,677**
2020										**1,396**
Total										**$ 17,383**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ 4**
Accident years 2011 - 2020 from tables above	**2,487**
All Accident years	**$ 2,491**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ 2**
Accident years 2011 - 2020 from tables above	**(37)**
All Accident years	**$ (35)**

North America Commercial P&C Insurance — Non-Casualty — Short-tail (continued)

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	46 %	38 %	8 %	3 %	1 %	1 %	— %	1 %	— %	— %

North America Personal P&C Insurance — Short-tail

Chubb provides personal lines coverages for high-net-worth individuals and families in North America including homeowners, automobile, valuable articles (including fine art), umbrella liability, and recreational marine insurance offered through independent regional agents and brokers. A portfolio acquired from Fireman's Fund is presented on a prospective basis beginning in May of accident year 2015. Reserves associated with prior accident periods were acquired through a loss portfolio transfer, which does not allow for a retrospective presentation. During this ten-year period, this segment was also impacted by natural catastrophes, mainly in 2012, 2017 and 2018 accident years.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)	Unaudited											
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$2,208	$2,210	$2,185	$2,173	$2,164	$2,161	$2,160	$2,158	$2,159	**$ 2,157**	**$ 7**	**179**
2012		2,185	2,183	2,183	2,191	2,186	2,186	2,189	2,194	**2,190**	**18**	**188**
2013			1,860	1,888	1,897	1,900	1,924	1,937	1,945	**1,948**	**26**	**132**
2014				2,205	2,206	2,192	2,146	2,160	2,147	**2,141**	**14**	**144**
2015					2,494	2,550	2,561	2,544	2,563	**2,570**	**21**	**148**
2016						2,440	2,535	2,545	2,482	**2,471**	**45**	**154**
2017							3,035	3,069	3,002	**2,998**	**96**	**163**
2018								3,010	3,037	**3,103**	**244**	**169**
2019									2,957	**2,993**	**329**	**155**
2020										**2,931**	**1,119**	**100**
Total										**$ 25,502**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)	Unaudited									
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 1,360	$ 1,835	$ 1,972	$ 2,052	$ 2,105	$ 2,129	$ 2,139	$ 2,146	$ 2,148	**$ 2,149**
2012		1,177	1,806	1,957	2,063	2,117	2,149	2,164	2,163	**2,165**
2013			1,043	1,504	1,688	1,787	1,843	1,885	1,895	**1,917**
2014				1,310	1,765	1,926	2,035	2,080	2,106	**2,116**
2015					1,499	2,084	2,271	2,392	2,478	**2,508**
2016						1,453	2,052	2,211	2,314	**2,370**
2017							1,698	2,520	2,668	**2,799**
2018								1,926	2,549	**2,706**
2019									1,668	**2,437**
2020										**1,334**
Total										**$ 22,501**

North America Personal P&C Insurance — Short-tail (continued)

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ 24
Accident years 2011 - 2020 from tables above	3,001
All Accident years	$ 3,025

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ (1)
Accident years 2011 - 2020 from tables above	85
All Accident years	$ 84

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	57 %	24 %	7 %	5 %	3 %	1 %	1 %	— %	— %	— %

Overseas General Insurance — Casualty — Long-tail

This product line is comprised of D&O liability, E&O liability, financial institutions (including crime/fidelity coverages), and non-U.S. general liability as well as aviation and political risk. Exposures are located around the world, including Europe, Latin America, and Asia. Approximately 45 percent of Chubb Overseas General business is generated by European accounts, exclusive of Lloyd's market. There is some U.S. exposure in Casualty from multinational accounts and in financial lines for Lloyd's market. The financial lines coverages are typically written on a claims-made form, while general liability coverages are typically on an occurrence basis and comprised of a mix of primary and excess businesses.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)	Unaudited											
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Net IBNR Reserves	Reported Claims (in thousands)
2011	$1,255	$1,262	$1,254	$1,244	$1,158	$1,090	$1,079	$1,027	$1,023	$ 1,025	$ 31	37
2012		1,290	1,261	1,326	1,346	1,343	1,337	1,315	1,304	1,272	87	38
2013			1,281	1,279	1,276	1,322	1,276	1,242	1,182	1,148	86	39
2014				1,279	1,352	1,362	1,378	1,293	1,206	1,165	151	39
2015					1,196	1,296	1,328	1,351	1,326	1,265	199	41
2016						1,232	1,337	1,407	1,437	1,425	341	43
2017							1,227	1,332	1,381	1,433	384	43
2018								1,330	1,383	1,447	671	43
2019									1,409	1,480	809	40
2020										1,810	1,493	28
Total										$13,470		

Overseas General Insurance — Casualty — Long-tail (continued)

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)									Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 86	$ 243	$ 393	$ 528	$ 631	$ 713	$ 789	$ 842	$ 876	**$ 901**
2012		75	252	441	597	713	857	929	973	**1,040**
2013			85	267	428	579	725	829	899	**952**
2014				111	293	473	608	725	811	**876**
2015					86	287	497	679	802	**884**
2016						127	324	534	687	**815**
2017							98	323	535	**702**
2018								112	334	**503**
2019									126	**341**
2020										**110**
Total										**$ 7,124**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ 486**
Accident years 2011 - 2020 from tables above	**6,346**
All Accident years	**$ 6,832**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ (59)**
Accident years 2011 - 2020 from tables above	**9**
All Accident years	**$ (50)**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	8 %	15 %	15 %	12 %	10 %	8 %	6 %	4 %	4 %	3 %

Overseas General Insurance — Non-Casualty — Short-tail

This product line is comprised of commercial fire, marine (predominantly cargo), surety, personal automobile (in Latin America, Asia Pacific and Japan), personal cell phones, personal residential (including high net worth), energy and construction. In general, these lines have relatively stable payment and reporting patterns although they are impacted by natural catastrophes mainly in the 2011, 2017, and 2018 accident years. Latin America and Europe each make up about 30 percent of the Chubb Overseas General non-casualty book.

Overseas General Insurance — Non-Casualty — Short-tail (continued)

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)									Unaudited			
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	***Reported Claims*** (in thousands)
2011	$1,908	$1,995	$1,938	$1,898	$1,879	$1,867	$1,859	$1,849	$1,844	**$ 1,843**	**$ 6**	**543**
2012		1,712	1,702	1,661	1,605	1,599	1,590	1,575	1,570	**1,562**	**13**	**555**
2013			1,787	1,780	1,714	1,665	1,660	1,633	1,620	**1,610**	**19**	**573**
2014				1,863	1,932	1,875	1,864	1,828	1,817	**1,810**	**7**	**548**
2015					1,963	2,083	2,062	2,030	2,011	**2,003**	**24**	**571**
2016						2,070	2,071	2,058	2,036	**2,040**	**22**	**581**
2017							2,222	2,264	2,245	**2,225**	**18**	**589**
2018								2,186	2,276	**2,237**	**48**	**624**
2019									2,208	**2,228**	**94**	**640**
2020										**2,571**	**804**	**518**
Total										**$20,129**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)									Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 765	$ 1,486	$ 1,694	$ 1,750	$ 1,780	$ 1,795	$ 1,804	$ 1,808	$ 1,807	**$ 1,806**
2012		679	1,237	1,425	1,485	1,508	1,518	1,530	1,532	**1,532**
2013			696	1,284	1,480	1,512	1,549	1,567	1,575	**1,578**
2014				758	1,438	1,651	1,715	1,746	1,759	**1,774**
2015					857	1,560	1,793	1,875	1,897	**1,927**
2016						1,013	1,679	1,881	1,954	**1,981**
2017							1,051	1,848	2,029	**2,106**
2018								1,006	1,753	**1,962**
2019									1,050	**1,747**
2020										**1,085**
Total										**$ 17,498**

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ 94**
Accident years 2011 - 2020 from tables above	**2,631**
All Accident years	**$ 2,725**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ (8)**
Accident years 2011 - 2020 from tables above	**(69)**
All Accident years	**$ (77)**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	45 %	35 %	11 %	3 %	2 %	1 %	1 %	— %	— %	— %

Global Reinsurance

Chubb analyzes its Global Reinsurance business on a treaty year basis rather than on an accident year basis. Treaty year data was converted to an accident year basis for the purposes of this disclosure. Mix shifts are an important consideration in these product line groupings. As proportional business and excess of loss business have different earning and loss reporting and payment patterns, this change in mix will affect the cash flow patterns across the accident years. In addition, the shift from excess to proportional business over time will make the cash flow patterns of older and more recent years difficult to compare. In general, the proportional business will pay out more quickly than the excess of loss business, as such, using older years development patterns may overstate the ultimate loss estimates in more recent years.

Global Reinsurance — Casualty — Long-tail

This product line includes proportional and excess coverages in general, automobile liability, professional liability, medical malpractice and workers' compensation, with exposures located around the world. In general, reinsurance exhibits less stable development patterns than primary business. In particular, general casualty reinsurance and excess coverages are long-tailed and can be very volatile.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020
(in millions of U.S. dollars)									Unaudited		
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**
2011	$ 408	$ 415	$ 430	$ 433	$ 428	$ 418	$ 415	$ 409	$ 402	**$ 389**	**$ 15**
2012		387	384	392	395	379	373	372	374	**379**	**11**
2013			321	327	330	331	332	324	317	**311**	**13**
2014				334	335	340	343	345	348	**331**	**16**
2015					285	290	300	301	309	**306**	**22**
2016						224	228	236	236	**245**	**27**
2017							215	217	221	**218**	**28**
2018								246	249	**256**	**48**
2019									239	**248**	**90**
2020										**247**	**153**
Total										**$ 2,930**	

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)									Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 70	$ 146	$ 195	$ 236	$ 267	$ 292	$ 312	$ 325	$ 332	**$ 338**
2012		78	168	223	262	293	309	324	336	**342**
2013			65	143	186	222	242	260	269	**272**
2014				92	185	218	249	265	277	**287**
2015					90	159	192	217	233	**250**
2016						58	113	143	159	**175**
2017							47	100	122	**140**
2018								42	96	**126**
2019									40	**90**
2020										**41**
Total										**$ 2,061**

Global Reinsurance — Casualty — Long-tail (continued)

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ 331
Accident years 2011 - 2020 from tables above	869
All Accident years	$ 1,200

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ (10)
Accident years 2011 - 2020 from tables above	(12)
All Accident years	$ (22)

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	21 %	23 %	12 %	10 %	7 %	5 %	4 %	3 %	2 %	2 %

Global Reinsurance — Non-Casualty — Short-tail

This product line includes property, property catastrophe, marine, credit/surety, A&H and energy. This product line is impacted by natural catastrophes, particularly in the 2011, 2017 and 2018 accident years. Of the non-catastrophe book, the mixture of business varies by year with approximately 77 percent of loss on proportional treaties in treaty year 2011 and after. This percentage has increased over time with the proportion being approximately 59 percent for treaty years 2011 to 2012 growing to an average of 82 percent for treaty years 2013 to 2020, with the remainder being written on an excess of loss basis.

Net Incurred Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31								Unaudited		As of December 31 2020
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Net IBNR Reserves
2011	$ 277	$ 279	$ 276	$ 266	$ 267	$ 268	$ 267	$ 268	$ 267	$ 269	$ 1
2012		233	211	202	192	191	188	186	186	184	1
2013			162	160	148	143	144	141	141	140	—
2014				167	182	183	186	184	183	182	3
2015					147	155	162	162	155	161	4
2016						184	189	192	194	190	5
2017							397	424	454	451	10
2018								288	300	303	(8)
2019									143	141	29
2020										212	110
Total										$ 2,233	

Global Reinsurance — Non-Casualty — Short-tail (continued)

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31								Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 87	$ 179	$ 210	$ 236	$ 254	$ 259	$ 262	$ 263	$ 264	**$ 265**
2012		45	130	157	167	173	178	180	181	**180**
2013			46	103	121	131	134	137	137	**139**
2014				66	131	154	165	171	173	**175**
2015					56	104	133	143	147	**153**
2016						57	133	161	172	**178**
2017							191	322	402	**415**
2018								94	258	**277**
2019									35	**86**
2020										**63**
Total										**$ 1,931**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ 10**
Accident years 2011 - 2020 from tables above	**302**
All Accident years	**$ 312**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ —**
Accident years 2011 - 2020 from tables above	**(2)**
All Accident years	**$ (2)**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	33 %	38 %	14 %	6 %	4 %	2 %	1 %	1 %	— %	— %

Prior Period Development — Supplementary Information

The following table presents a reconciliation of the loss development triangles above to prior period development:

					Components of PPD	
Year Ended December 31, 2020 (in millions of U.S. dollars) (favorable)/unfavorable	2011 - 2019 accident years (implied PPD per loss triangles)	Accident years prior to 2011	Other [1]	PPD on loss reserves	RIPs, Expense adjustments, and earned premiums	Total
North America Commercial P&C Insurance						
Long-tail	$ (354)	$ (247)	$ (102)	$ (703)	$ 31	$ (672)
Short-tail	(37)	2	5	(30)	—	(30)
	(391)	(245)	(97) [2]	(733)	31 [3]	(702)
North America Personal P&C Insurance (Short-tail)	85	(1)	(3)	81	(18)	63
Overseas General Insurance						
Long-tail	9	(59)	1	(49)	—	(49)
Short-tail	(69)	(8)	(24)	(101)	—	(101)
	(60)	(67)	(23) [4]	(150)	—	(150)
Global Reinsurance						
Long-tail	(12)	(10)	(1)	(23)	(2)	(25)
Short-tail	(2)	—	(1)	(3)	(1)	(4)
	(14)	(10)	(2)	(26)	(3)	(29)
Subtotal	$ (380)	$ (323)	$ (125)	$ (828)	$ 10	$ (818)
North America Agricultural Insurance (Short-tail)				$ (19)	$ 9	$ (10)
Corporate (Long-tail)				433	—	433
Consolidated PPD				$ (414)	$ 19	$ (395)

[1] *Other includes the impact of foreign exchange.*

[2] Includes favorable development of $80 million related to our Alternative Risk Solutions business (U.S. and Bermuda) and an adjustment to exclude $15 million in unfavorable development in the workers compensation line, associated with an increase in exposure for which additional premiums were collected; the remaining difference relates to a number of other items, none of which are individually material.

[3] Includes premium returns associated with our Alternative Risk Solutions business, which is excluded from the triangles.

[4] Includes favorable development of $22 million related to international A&H business; the remaining difference relates to a number of other items, none of which are individually material.

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:

Years Ended December 31 (in millions of U.S. dollars, except for percentages)	Long-tail	Short-tail	Total	% of beginning net unpaid reserves [1]
2020				
North America Commercial P&C Insurance	**$ (672)**	**$ (30)**	**$ (702)**	**1.4 %**
North America Personal P&C Insurance	**—**	**63**	**63**	**0.1 %**
North America Agricultural Insurance	**—**	**(10)**	**(10)**	**— %**
Overseas General Insurance	**(49)**	**(101)**	**(150)**	**0.3 %**
Global Reinsurance	**(25)**	**(4)**	**(29)**	**0.1 %**
Corporate	**433**	**—**	**433**	**0.9 %**
Total	**$ (313)**	**$ (82)**	**$ (395)**	**0.8 %**
2019				
North America Commercial P&C Insurance	$ (668)	$ 19	$ (649)	1.3 %
North America Personal P&C Insurance	—	(95)	(95)	0.2 %
North America Agricultural Insurance	—	(80)	(80)	0.2 %
Overseas General Insurance	(68)	(24)	(92)	0.2 %
Global Reinsurance	(59)	30	(29)	0.1 %
Corporate	153	—	153	0.3 %
Total	$ (642)	$ (150)	$ (792)	1.6 %
2018				
North America Commercial P&C Insurance	$ (395)	$ (215)	$ (610)	1.2 %
North America Personal P&C Insurance	—	41	41	0.1 %
North America Agricultural Insurance	—	(110)	(110)	0.2 %
Overseas General Insurance	(67)	(145)	(212)	0.4 %
Global Reinsurance	(69)	19	(50)	0.1 %
Corporate	45	—	45	0.1 %
Total	$ (486)	$ (410)	$ (896)	1.8 %

[1] Calculated based on the beginning of period consolidated net unpaid losses and loss expenses.

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

2020

North America Commercial P&C Insurance experienced net favorable PPD of $702 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 $672 million in long-tail business, primarily from:
  - Net favorable development of $363 million in workers' compensation lines. The majority of the favorable development related to accident years 2016 and prior, driven by lower than expected loss emergence and related updates to loss development factors. In addition, we experienced favorable development of $62 million related to our annual assessment of multi-claimant events, including industrial accidents, in the 2019 accident year. Consistent with prior

years, we reviewed these potential exposures after the close of the accident year to allow for late reporting or identification of significant losses. This favorable development in accident year 2019 was partially offset by some higher than expected activity from other claims;

- Net favorable development of $231 million in management liability portfolios, favorably impacting accident years 2015 and prior where paid and reported loss activity was lower than expected, partially offset by adverse development in the 2016 through 2019 accident years, mainly due to higher than expected claim severity in our Directors and Officers (D&O) portfolios;

- Net favorable development of $83 million in commercial excess and umbrella portfolios, mainly in accident years 2014 and prior, driven by lower paid and reported loss activity relative to prior expectations as well as an increase in weighting towards experience-based methods, partially offset by adverse development in more recent accident years, due to higher than expected loss activity;

- Net favorable development of $67 million in professional liability (errors & omissions and cyber risk), driven by accident years 2016 and prior, which experienced lower than expected loss emergence;

- Net favorable development of $43 million in voluntary environmental lines, in accident years 2016 and prior, due to lower than expected loss emergence and a related update to loss development factors;

- Net favorable development of $41 million on large multi-line prospective deals in the 2016 and prior accident years, due to lower than expected reported loss activity. These structured deals typically cover large clients for multiple product lines and with varying loss limitations; this development is net of premium returns of $26 million tied to the loss performance of the particular deals;

- Net favorable development of $40 million in foreign casualty businesses, mainly in accident year 2016, due to lower than expected reported loss activity, partially offset by adverse development on a large loss in accident year 2017;

- Net adverse development of $48 million in general liability coverages, driven by higher than expected reported loss activity in accident years 2017 through 2019, partially offset by favorable development in older accident years;

- Net adverse development of $64 million in medical liability businesses, mainly impacting accident years 2016 through 2019, primarily due to higher than expected reported loss emergence and associated changes to loss development factors and loss expectations; and

- Net adverse development of $77 million in commercial automobile liability, mainly in high deductible and excess portfolios, driven by adverse paid and reported loss emergence and related updates to loss development factors, mainly in accident years 2015 through 2019.

- Net favorable development of $30 million in short-tail business primarily from:

  - Net favorable development of $37 million, in accident & health, mainly in accident years 2018 and 2019, driven by lower than expected paid loss emergence;

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

  - Net adverse development of $21 million in our marine portfolios, mainly impacting the 2019 accident year, driven by higher than expected non-catastrophe loss development.

2019

North America Commercial P&C Insurance experienced net favorable PPD of $649 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 $668 million in long-tail business, primarily from:

  - Net favorable development of $303 million in workers' compensation lines. This included favorable development of $61 million related to our annual assessment of multi-claimant events including industrial accidents, in the 2018 accident year. Consistent with prior years, we reviewed these potential exposures after the close of the accident year to allow for late reporting or identification of significant losses. This development in accident year 2018 was partially

offset by some higher than expected activity from other claims and from involuntary pools. The remaining overall favorable development was mainly in accident years 2015 and prior, generally driven by lower than expected loss experience and related updates to loss development factors;

- Net favorable development of $217 million in management liability portfolios, favorably impacting accident years 2015 and prior where paid and reported loss activity was lower than expected, partially offset by adverse development in the 2016 through 2018 accident years, mostly as a result of higher severity claim costs compared to prior expectations in certain lines or coverages, particularly in our Directors and Officers (D&O) portfolios;

- Net favorable development of $60 million in professional liability (errors & omissions and cyber), mainly in the 2015 and prior accident years where case activity was less than expected, partially offset by adverse development in the 2016 accident year, which was driven by several large adverse claim developments;

- Net favorable development of $41 million in commercial excess and umbrella portfolios, mainly in accident years 2013 and prior driven by lower paid and reported loss activity relative to prior expectations as well as an increase in weighting towards experience-based methods, partly offset by modestly adverse development in more recent accident years, mainly in 2017 and 2018, due to higher than expected large loss activity;

- Net favorable development of $39 million in foreign casualty business, impacting accident years 2015 and prior, driven by reported loss activity that was generally lower than expected;

- Net favorable development of $36 million on large multi-line prospective deals in the 2015 and prior accident years, due to lower than expected reported loss activity. These structured deals typically cover large clients for multiple product lines and with varying loss limitations; this development is net of premium returns of $34 million tied to the loss performance of the particular deals;

- Net favorable development of $24 million in medical and life sciences businesses, mainly impacting accident years 2015 and prior, primarily due to favorable reported experience and an increase in weighting towards experience-based methods;

- Favorable development of $23 million in political risk and trade credit portfolios, mainly impacting the 2015 accident year, primarily due to favorable reported experience and an increase in weighting towards experience-based methods;

- Net adverse development of $26 million mainly in products and general liability portfolios, including adverse movements within construction, partly offset by commercial-multi peril (CMP) liability, with older accident years generally experiencing favorable run-off, while more recent accident years developing adversely; and

- Net adverse development of $38 million in automobile liability, driven by adverse paid and reported loss experience mainly in accident years 2014 through 2018.

- Net adverse development of $19 million in short-tail business, primarily from:

  - Net adverse development, excluding catastrophes, of $108 million in property and marine portfolios with adverse development of $152 million across our retail, wholesale, and program distribution channels in accident year 2018, primarily due to a higher than expected severity of non-catastrophe claims, partly offset by favorable development of $44 million in 2017 and prior accident years on non-catastrophe claims;

  - Net favorable catastrophe development in property and marine portfolios of $36 million. There was $41 million of favorable development on the 2017 and 2018 natural catastrophes, mostly in 2017, partly offset by some adverse development on older catastrophe events; and

  - Favorable development of $49 million in surety businesses, mainly in accident year 2017, driven by lower than expected reported loss activity.

2018

North America Commercial P&C Insurance experienced net favorable PPD of $610 million, representing 1.2 percent of the beginning consolidated net unpaid losses and loss expense reserves.

North America Personal P&C Insurance
2020
North America Personal P&C Insurance incurred net adverse PPD of $63 million, which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net adverse development of $84 million in the homeowners product line, including valuables, mainly in accident years 2017 through 2019 due to higher than expected non-catastrophe loss emergence and adverse development arising from natural catastrophes in accident years 2017 and 2018; and

- Net favorable development of $22 million in the personal excess line, driven by favorable development mainly in the 2017 accident year, partially offset by adverse development in accident year 2019.

2019
North America Personal P&C Insurance incurred net favorable PPD of $95 million, which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable claim development of $132 million on the 2017 and 2018 natural catastrophes for all lines;

- Net favorable development of $26 million in our personal excess lines primarily impacting the 2016 accident year, due to lower than expected loss emergence and an increase in weighting towards experience-based methods, partly offset by adverse emergence in accident year 2015; and

- Net adverse development of $82 million in our homeowners lines, including valuables, arising from non-catastrophe loss emergence, mainly in the 2018 accident year.

2018
North America Personal P&C Insurance incurred net adverse PPD of $41 million, representing 0.1 percent of the beginning consolidated net unpaid losses and loss expense reserves.

North America Agricultural Insurance
North America Agricultural Insurance experienced net favorable PPD of $10 million, $80 million, and $110 million in 2020, 2019, and 2018, respectively. Actual claim development mainly relates to our Multiple Peril Crop Insurance business and was favorable due to better than expected crop yield results in certain states at the prior year-end period (i.e., 2020 results based on crop yield results at year-end 2019).

Overseas General Insurance
2020
Overseas General Insurance experienced net favorable PPD of $150 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 $49 million in long-tail business, primarily from:

  - Net favorable development of $94 million in casualty lines, including favorable development of $143 million in accident years 2016 and prior, due to lower than expected loss emergence across primary and excess lines in Continental Europe, U.K., and Asia Pacific, partially offset by adverse development of $49 million in accident years 2017 through 2019, primarily due to adverse large loss experience in U.K. and Asia Pacific;

  - Net favorable development of $22 million in political risk, driven by lower than expected loss emergence in accident years 2018 and 2019; and

  - Net adverse development of $80 million in financial lines, with favorable development of $61 million in accident years 2015 and prior, primarily from favorable case-specific settlements within Continental Europe and Asia Pacific financial institutions, which was more than offset by adverse development of $141 million in accident years 2016 through 2019, primarily due to adverse large loss experience in D&O portfolios in the U.K. and Asia Pacific.

- Net favorable development of $101 million in short-tail business, primarily from:

- Net favorable development of $69 million in marine, driven by favorable loss emergence and claim-specific loss settlements across all regions in accident years 2012 through 2019; and
- Net favorable development of $21 million in A&H, driven by favorable development across Continental Europe, U.K. and Latin America primarily in accident years 2018 and 2019.

2019
Overseas General Insurance experienced net favorable PPD of $92 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 $68 million in long-tail business, primarily from:
  - Net favorable development of $101 million in casualty lines, including favorable development of $123 million in accident years 2015 and prior, due to lower than expected loss emergence mainly across primary lines in Continental Europe, U.K., and Asia Pacific, partially offset by adverse development of $22 million in accident years 2016 through 2018, primarily due to adverse attritional and large loss experience in Continental Europe; and
  - Net adverse development of $52 million in financial lines, including adverse development of $127 million in accident years 2016 through 2018, primarily due to adverse large loss experience in D&O in the U.K. and Asia Pacific, offset by favorable development of $75 million in accident years 2015 and prior, due to lower than expected loss emergence across most regions in D&O and Professional Indemnity.
- Net favorable of $24 million in short-tail business, primarily from:
  - Net favorable development of $45 million in A&H, driven by favorable development across Continental Europe, Latin America and Asia Pacific primarily in accident years 2017 and 2018;
  - Net favorable development of $36 million in marine, driven by favorable loss emergence and claim-specific loss settlements across most regions and several accident years, including favorable liability emergence and litigation settlements in accident years 2016 and prior;
  - Net adverse development of $23 million in construction, driven by adverse large loss experience in accident year 2018 for U.K. and Asia Pacific; and
  - Net adverse development of $27 million in Surety, driven by adverse large loss experience across Continental Europe and Latin America in accident years 2017 and 2018.

2018
Overseas General Insurance experienced net favorable PPD of $212 million, representing 0.4 percent of the beginning consolidated net unpaid losses and loss expense reserves.

Global Reinsurance
2020
Global Reinsurance experienced net favorable PPD of $29 million, which was the net result of several underlying favorable and adverse movements, none of which is significant individually or in the aggregate.

2019
Global Reinsurance experienced net favorable PPD of $29 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 $59 million in long-tail business, primarily in our auto, casualty, professional liability, medical malpractice, and workers' compensation lines primarily from treaty years 2013 and prior principally due to lower than expected loss emergence; and
- Net adverse development of $30 million in short-tail business, which included $44 million of adverse development on 2017 and 2018 natural catastrophe events.

2018
Global Reinsurance experienced net favorable PPD of $50 million, representing 0.1 percent of the beginning consolidated net unpaid losses and loss expense reserves.

Corporate
2020
Corporate incurred adverse development of $433 million in long-tail lines, driven by the following principal changes:

- Adverse development of $254 million for U.S. child molestation claims, predominantly reviver statute-related;
- Adverse development of $106 million associated with asbestos and environmental liabilities, generally attributable to certain case specific incurred activity and higher than expected indemnity, expenses and defense costs on a limited number of accounts;
- Adverse development of $38 million on unallocated loss adjustment expenses due to run-off operating expenses paid and incurred in 2020 and $27 million from an increase in the provision for uncollectible reinsurance.

2019
Corporate incurred adverse development of $153 million in long-tail lines, driven by the following principal changes:

- Adverse development of $116 million driven principally by adverse development in asbestos and environmental liabilities due to the emergence of a limited number of excess accounts and somewhat greater than expected defense and indemnity costs (generally impacting larger modeled accounts); and
- Adverse development of $37 million on unallocated loss adjustment expenses due to run-off operating expenses paid and incurred in 2019.

2018
Corporate incurred adverse PPD of $45 million, representing 0.1 percent of the beginning consolidated net unpaid losses and loss expense reserves.

Asbestos and environmental (A&E)
Chubb's exposure to A&E claims principally arises out of liabilities acquired when it purchased Westchester Specialty in 1998, CIGNA's P&C business in 1999, and Chubb Corp in 2016. The following table presents a roll-forward of consolidated A&E loss reserves including allocated loss expense reserves for A&E exposures, and the valuation allowance for uncollectible paid and unpaid reinsurance recoverables:

	Asbestos		Environmental		Total		
(in millions of U.S. dollars)	Gross	Net	Gross	Net	Gross	Net	
Balance at December 31, 2017	$ 1,621	$ 1,051	$ 607	$ 476	$ 2,228	$ 1,527	
Incurred activity	136	75	101	(97)	237	(22)	(1)
Paid activity	(265)	(162)	(83)	104	(348)	(58)	
Balance at December 31, 2018	1,492	964	625	483	2,117	1,447	
Incurred activity	129	70	46	28	175	98	(1)
Paid activity	(162)	(118)	(142)	(101)	(304)	(219)	
Balance at December 31, 2019	1,459	916	529	410	1,988	1,326	
Incurred activity	**150**	**90**	**79**	**41**	**229**	**131**	(1)
Paid activity	**(258)**	**(133)**	**(91)**	**(72)**	**(349)**	**(205)**	
Balance at December 31, 2020	**$ 1,351**	**$ 873**	**$ 517**	**$ 379**	**$ 1,868**	**$ 1,252**	

[1] Excludes unallocated loss expenses and the net activity reflects third-party reinsurance other than the aggregate excess of loss reinsurance provided by National Indemnity Company (NICO) to Westchester Specialty (see Westchester Specialty section below).

The A&E net loss reserves including allocated loss expense reserves and valuation allowance for uncollectible reinsurance at December 31, 2020 and 2019 shown in the table above is comprised of:

	December 31	
(in millions of U.S. dollars)	**2020**	2019
Brandywine operations	**$ 736**	$ 754
Westchester Specialty	**103**	117
Chubb Corp	**333**	381
Other, mainly Overseas General Insurance	**80**	74
Total	**$ 1,252**	$ 1,326

Brandywine Run-off entities – The Restructuring Plan and uncertainties relating to Chubb's ultimate Brandywine exposure

In 1996, the Pennsylvania Insurance Commissioner approved a plan to restructure INA Financial Corporation and its subsidiaries (the Restructuring) which included the division of Insurance Company of North America (INA) into two separate corporations:

(1) An active insurance company that retained the INA name and continued to write P&C business; and
(2) An inactive run-off company, now called Century Indemnity Company (Century).

As a result of the division, predominantly all A&E and certain other liabilities of INA were ascribed to Century and extinguished, as a matter of Pennsylvania law, as liabilities of INA.

As part of the Restructuring, most A&E liabilities of various U.S. affiliates of INA were reinsured to Century. Century and certain other run-off companies having A&E and other liabilities were contributed to Brandywine Holdings.

The U.S.-based Chubb INA companies assumed two contractual obligations in respect of the Brandywine operations in connection with the Restructuring: a surplus maintenance obligation in the form of the excess of loss (XOL) agreement and a dividend retention fund obligation.

XOL Agreement
In 1996, in connection with the Restructuring, a Chubb INA insurance subsidiary provided reinsurance coverage to Century in the amount of $800 million under an Aggregate Excess of Loss Reinsurance Agreement (XOL Agreement), triggerable if the statutory capital and surplus of Century falls below $25 million or if Century lacks liquid assets with which to pay claims as they become due.

Dividend Retention Fund
INA Financial Corporation established and funded a dividend retention fund (the Dividend Retention Fund) consisting of $50 million plus investment earnings. The full balance of the Dividend Retention Fund was contributed to Century as of December 31, 2002. Under the Restructuring Order, while any obligation to maintain the Dividend Retention Fund is in effect, to the extent dividends are paid by INA Holdings Corporation to its parent, INA Financial Corporation, and to the extent INA Financial Corporation then pays such dividends to INA Corporation, a portion of those dividends must be withheld to replenish the principal of the Dividend Retention Fund to $50 million. During 2020, 2019, 2018, 2011 and 2010, $250 million, $90 million, $50 million, $35 million and $15 million, respectively, were withheld from such dividends and deposited into the Dividend Retention Fund as a result of dividends paid up to the INA Corporation. Pursuant to a 2011 amendment to the Restructuring Order, capital contributions from the Dividend Retention Fund to Century are not required until the XOL Agreement has less than $200 million of capacity remaining on an incurred basis for statutory reporting purposes. The amount of the required capital contribution shall be the lesser of the amount necessary to restore the XOL Agreement remaining capacity to $200 million or the Dividend Retention Fund balance. In 2020 and 2019, capital contributions of $302 million and $64 million were made, respectively, from the Dividend Retention Fund to Century. The Dividend Retention Fund may not be terminated without prior written approval from the Pennsylvania Insurance Commissioner.

Effective December 31, 2004, Chubb INA contributed $100 million to Century in exchange for a surplus note. After giving effect to the contribution and issuance of the surplus note, the statutory surplus of Century at December 31, 2020 was $25 million and $573 million in statutory-basis losses have been ceded to the XOL Agreement on an inception-to-date basis. Century reports the amount ceded under the XOL Agreement in accordance with statutory accounting principles, which differ from GAAP

by, among other things, allowing Century to discount its liabilities, including certain asbestos related and environmental pollution liabilities and Century's reinsurance payable to active companies. For GAAP reporting purposes, intercompany reinsurance recoverables related to the XOL are eliminated upon consolidation.

While Chubb believes it has no legal obligation to fund Century losses above the XOL limit of coverage, Chubb's consolidated results would nevertheless continue to include any losses above the limit of coverage for so long as the Brandywine companies remain consolidated subsidiaries of Chubb.

Certain active Chubb companies are primarily liable for asbestos, environmental, and other exposures that they have reinsured to Century. Accordingly, if Century were to become insolvent and placed into rehabilitation or liquidation, some or all of the recoverables due to these active Chubb companies from Century could become uncollectible. At December 31, 2020 and 2019, the aggregate reinsurance recoverables owed by Century to certain active Chubb companies were approximately $1.6 billion and $1.5 billion, respectively, on an undiscounted basis. Chubb believes the active company intercompany reinsurance recoverables, which relate to direct liabilities payable over many years, are not impaired. At December 31, 2020 and 2019, Century's carried gross reserves (including reserves assumed from the active Chubb companies) were $2.1 billion and $1.8 billion, respectively. Should Century's loss reserves experience adverse development in the future and should Century be placed into rehabilitation or liquidation, the reinsurance recoverables due from Century to certain active Chubb companies would be payable only after the payment in full of certain expenses and liabilities, including administrative expenses and direct policy liabilities. Thus, the intercompany reinsurance recoverables would be at risk to the extent of the shortage of assets remaining to pay these recoverables.

Westchester Specialty – impact of NICO contracts on Chubb's run-off entities

As part of the Westchester Specialty acquisition in 1998, NICO provided a 75 percent pro-rata share of $1.0 billion of reinsurance protection on losses and loss adjustment expenses incurred on or before December 31, 1996, in excess of a retention of $721 million. At December 31, 2020, the remaining unused incurred limit under the Westchester NICO agreement was $372 million.

8. Taxation

Under Swiss law through December 31, 2020, a resident company is subject to income tax at the federal, cantonal, and communal levels that is levied on net worldwide income. Income attributable to permanent establishments or real estate located abroad is excluded from the Swiss tax base. Furthermore, participation relief (i.e., tax relief) is granted to Chubb Limited at the federal, cantonal, and communal level for qualifying dividend income and capital gains related to the sale of qualifying participations (i.e., subsidiaries). Chubb Limited is subject to an annual cantonal and communal capital tax on the taxable equity of Chubb Limited in Switzerland.

Chubb has two Swiss operating subsidiaries, an insurance company, Chubb Insurance (Switzerland) Limited and a reinsurance company, Chubb Reinsurance (Switzerland) Limited. Both are subject to federal, cantonal, and communal income tax and to annual cantonal and communal capital tax.

Under current Bermuda law, Chubb Limited and its Bermuda subsidiaries are not required to pay any taxes on income or capital gains. If a Bermuda law were enacted that would impose taxes on income or capital gains, Chubb Limited and the Bermuda subsidiaries have received an undertaking from the Minister of Finance in Bermuda that would exempt such companies from Bermudian taxation until March 2035.

Income from Chubb's operations at Lloyd's is subject to United Kingdom (U.K.) corporation income taxes. Lloyd's is required to pay U.S. income tax on U.S. connected income written by Lloyd's syndicates. Lloyd's has a closing agreement with the Internal Revenue Service (IRS) whereby the amount of tax due on this business is calculated by Lloyd's and remitted directly to the IRS. These amounts are then charged to the accounts of Chubb's Corporate Members in proportion to their participation in the relevant syndicates. Chubb's Corporate Members are subject to this arrangement but, as U.K. domiciled companies, will receive U.K. corporation tax credits for any U.S. income tax incurred up to the value of the equivalent U.K. corporation income tax charge on this income.

Chubb Group Holdings and its respective subsidiaries are subject to income taxes imposed by U.S. authorities and file a consolidated U.S. Federal income tax return. Should Chubb Group Holdings pay a dividend to Chubb Limited, withholding taxes

would apply. Currently, however, no withholding taxes are accrued with respect to such un-remitted earnings as management has no intention of remitting these earnings. Similarly, no taxes have been provided on the un-remitted earnings of certain foreign subsidiaries (Hong Kong and Korea life insurance companies) as management has no intention of remitting these earnings. The cumulative amount that would be subject to withholding tax, if distributed, as well as the determination of the associated tax liability are not practicable to compute; however, such amount would be material.

Certain international operations of Chubb are also subject to income taxes imposed by the jurisdictions in which they operate.

Chubb's domestic operations are in Switzerland, the jurisdiction where we are legally organized, incorporated, and registered. As a result of Swiss tax reform legislation effective in 2020, the Swiss tax rate increased from 7.83 percent in years 2018 and 2019 to 21.2 percent in 2020.

The following table presents pre-tax income and the related provision for income taxes:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Pre-tax income:			
Switzerland	**$ 350**	$ 440	$ 950
Outside Switzerland	**3,812**	4,809	3,707
Total pre-tax income	**$ 4,162**	$ 5,249	$ 4,657
Provision for income taxes			
Current tax expense:			
Switzerland	**$ 52**	$ 29	$ 89
Outside Switzerland	**876**	879	563
Total current tax expense	**928**	908	652
Deferred tax expense (benefit):			
Switzerland	**2**	11	3
Outside Switzerland	**(301)**	(124)	40
Total deferred tax expense (benefit)	**(299)**	(113)	43
Provision for income taxes	**$ 629**	$ 795	$ 695

The most significant jurisdictions contributing to the overall taxation of Chubb are calculated using the following rates in 2020: Switzerland 21.2 percent, U.S. 21.0 percent, U.K. 19.0 percent, and Bermuda 0.0 percent.

The following table presents a reconciliation of the difference between the provision for income taxes and the expected tax provision at the Swiss statutory income tax rate:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Expected tax provision at Swiss statutory tax rate	**$ 880**	$ 411	$ 365
Permanent differences:			
Taxes on earnings subject to rate other than Swiss statutory rate	**(337)**	376	372
Tax-exempt interest and dividends received deduction, net of proration	**(41)**	(49)	(75)
Net withholding taxes	**67**	40	33
Share-based compensation	**(10)**	(12)	(19)
Impact of 2017 Tax Act	**—**	—	(25)
Other	**70**	29	44
Provision for income taxes	**$ 629**	$ 795	$ 695

The following table presents the components of net deferred tax assets and liabilities:

(in millions of U.S. dollars)	**December 31 2020**	December 31 2019
Deferred tax assets:		
Loss reserve discount	**$ 884**	$ 826
Unearned premiums reserve	**496**	519
Foreign tax credits	**222**	247
Provision for uncollectible balances	**46**	37
Loss carry-forwards	**123**	143
Debt related amounts	**69**	74
Compensation related amounts	**281**	261
Cumulative translation adjustments	**120**	33
Investments	**75**	—
Lease liability	**121**	140
Total deferred tax assets	**2,437**	2,280
Deferred tax liabilities:		
Deferred policy acquisition costs	**522**	588
Other intangible assets, including VOBA	**1,425**	1,468
Un-remitted foreign earnings	**77**	73
Investments	**—**	40
Unrealized appreciation on investments	**957**	470
Depreciation	**123**	157
Lease right-of-use asset	**111**	129
Other, net	**31**	45
Total deferred tax liabilities	**3,246**	2,970
Valuation allowance	**83**	114
Net deferred tax liabilities	**$ (892)**	$ (804)

The valuation allowance of $83 million and $114 million at December 31, 2020 and 2019, respectively, reflects management's assessment, based on available information, that it is more likely than not that a portion of the deferred tax assets will not be realized due to the inability of certain non-U.S. subsidiaries to generate sufficient taxable income. Adjustments to the valuation allowance are made when there is a change in management's assessment of the amount of deferred tax assets that are realizable.

At December 31, 2020, Chubb has net operating loss carry-forwards of $407 million which, if unused, will expire starting in 2021, and a foreign tax credit carry-forward in the amount of $222 million which, if unused, will expire starting in 2026.

The following table presents a reconciliation of the beginning and ending amount of gross unrecognized tax benefits:

(in millions of U.S. dollars)	**December 31 2020**	December 31 2019
Balance, beginning of year	**$ 47**	$ 14
Additions based on tax positions related to the current year	**5**	12
Additions based on tax positions related to prior years	**24**	23
Reductions for the lapse of the applicable statutes of limitations	**—**	(2)
Balance, end of year	**$ 76**	$ 47

At December 31, 2020 and 2019, the gross unrecognized tax benefits of $76 million and $47 million, respectively, can be reduced by $31 million and $19 million, respectively, associated with foreign tax credits. The net amounts of $45 million and $28 million at December 31, 2020 and 2019, respectively, if recognized, would favorably affect the effective tax rate. We

made a settlement of a liability in January 2021 for $23 million, including interest. It is reasonably possible that over the next twelve months, that the amount of unrecognized tax benefits may change further resulting from the re-evaluation of unrecognized tax benefits arising from examinations by taxing authorities and the lapses of statutes of limitations.

Chubb recognizes accruals for interest and penalties, if any, related to unrecognized tax benefits in income tax expense in the Consolidated statements of operations. Tax-related interest expense and penalties reported in the Consolidated statements of operations were $8 million at December 31, 2020, $5 million at December 31, 2019, and were immaterial for 2018. Liabilities for tax-related interest and penalties in our Consolidated balance sheets were $16 million and $8 million at December 31, 2020 and 2019, respectively.

In March 2017, the IRS commenced its field examination of Chubb Group Holdings' U.S. Federal income tax returns for 2014 and 2015. The Chubb Group Holdings examination for 2014 and 2015 tax years is still ongoing with no material adjustments proposed to date. In July 2020, the IRS commenced its field examination of Chubb Group Holdings' U.S. Federal income tax returns for 2016, 2017 and 2018. As a multinational company, we also have examinations under way in several foreign jurisdictions. With few exceptions, Chubb is no longer subject to income tax examinations for years prior to 2010.

The following table summarizes tax years open for examination by major income tax jurisdiction:

At December 31, 2020	
Australia	2014 - 2020
Canada	2012 - 2020
France	2018 - 2020
Germany	2015 - 2020
Italy	2010 - 2020
Mexico	2014 - 2020
Spain	2012 - 2020
Switzerland	2016 - 2020
United Kingdom	2015 - 2020
United States	2014 - 2020

9. Debt

(in millions of U.S. dollars)	December 31 2020	December 31 2019	Early Redemption Option
Repurchase agreements (weighted average interest rate of 0.3% in 2020 and 2.2% in 2019)	**$ 1,405**	$ 1,416	None
Short-term debt			
Chubb INA:			
$1,300 million 2.3% due November 2020	**$ —**	$ 1,298	Make-whole premium plus 15 bps
Other short-term debt 2.75% due September 2020	**—**	1	None
Total short-term debt	**$ —**	$ 1,299	
Long-term debt			
Chubb INA:			
$1,000 million 2.875% senior notes due November 2022	**$ 998**	$ 997	Make-whole premium plus 20 bps
$475 million 2.7% senior notes due March 2023	**474**	473	Make-whole premium plus 10 bps
$700 million 3.35% senior notes due May 2024	**698**	697	Make-whole premium plus 15 bps
€700 million 0.3% senior notes due December 2024	**841**	776	Make-whole premium plus 15 bps
$800 million 3.15% senior notes due March 2025	**797**	796	Make-whole premium plus 15 bps
$1,500 million 3.35% senior notes due May 2026	**1,493**	1,492	Make-whole premium plus 20 bps
€575 million 0.875% senior notes due June 2027	**691**	635	Make-whole premium plus 20 bps
€900 million 1.55% senior notes due March 2028	**1,079**	993	Make-whole premium plus 15 bps
$100 million 8.875% debentures due August 2029	**100**	100	None
€700 million 0.875% senior notes due December 2029	**840**	775	Make-whole premium plus 20 bps
$1,000 million 1.375% senior notes due September 2030	**991**	—	Make-whole premium plus 15 bps
€575 million 1.4% senior notes due June 2031	**687**	633	Make-whole premium plus 25 bps
$200 million 6.8% debentures due November 2031	**242**	246	Make-whole premium plus 25 bps
$300 million 6.7% senior notes due May 2036	**298**	297	Make-whole premium plus 20 bps
$800 million 6.0% senior notes due May 2037	**945**	953	Make-whole premium plus 20 bps
€900 million 2.5% senior notes due March 2038	**1,077**	992	Make-whole premium plus 25 bps
$600 million 6.5% senior notes due May 2038	**743**	751	Make-whole premium plus 30 bps
$475 million 4.15% senior notes due March 2043	**470**	470	Make-whole premium plus 15 bps
$1,500 million 4.35% senior notes due November 2045	**1,484**	1,483	Make-whole premium plus 25 bps
Total long-term debt	**$ 14,948**	$ 13,559	
Trust preferred securities			
Chubb INA capital securities due April 2030	**$ 308**	$ 308	Redemption prices[1]

[1] Redemption prices are equal to accrued and unpaid interest to the redemption date plus the greater of (i) 100 percent of the principal amount thereof, or (ii) sum of present value of scheduled payments of principal and interest on the capital securities from the redemption date to April 1, 2030.

a) Repurchase agreements

Chubb has executed repurchase agreements with certain counterparties under which Chubb agreed to sell securities and repurchase them at a future date for a predetermined price.

b) Short-term debt
Short-term debt comprises the current maturities of our long-term debt instruments described below. These short-term debt instruments were reclassified from long-term debt and are reflected in the table above. Chubb INA Holdings Inc.'s (Chubb INA) $1,300 million of 2.3 percent senior notes due November 2020 was paid upon maturity.

c) Long-term debt
The $100 million of 8.875 percent debentures due August 2029 do not have an early redemption option. The remaining Chubb INA senior notes and debentures, including the $1,000 million of 1.375 percent senior notes issued September 2020, and capital securities are redeemable at any time at Chubb INA's option subject to the provisions described in the table above. A "make-whole" premium is the present value of the remaining principal and interest discounted at the applicable U.S. Treasury rate. These debt securities are also redeemable at par plus accrued and unpaid interest in the event of certain changes in tax law.

The senior notes and debentures do not have the benefit of any sinking fund and are guaranteed on a senior basis by Chubb Limited and they rank equally with all of Chubb's other senior obligations. They also contain customary limitations on lien provisions as well as customary events of default provisions which, if breached, could result in the accelerated maturity of such senior debt.

d) Trust preferred securities
In March 2000, ACE Capital Trust II, a Delaware statutory business trust, publicly issued $300 million of 9.7 percent Capital Securities (the Capital Securities) due to mature in April 2030. At the same time, Chubb INA purchased $9.2 million of common securities of ACE Capital Trust II. The sole assets of ACE Capital Trust II consist of $309 million principal amount of 9.7 percent Junior Subordinated Deferrable Interest Debentures (the Subordinated Debentures) issued by Chubb INA due to mature in April 2030.

Distributions on the Capital Securities are payable semi-annually and may be deferred for up to ten consecutive semi-annual periods (but no later than April 1, 2030). Any deferred payments would accrue interest compounded semi-annually if Chubb INA defers interest on the Subordinated Debentures. Interest on the Subordinated Debentures is payable semi-annually. Chubb INA may defer such interest payments (but no later than April 1, 2030), with such deferred payments accruing interest compounded semi-annually. The Capital Securities and the ACE Capital Trust II Common Securities will be redeemed upon repayment of the Subordinated Debentures.

Chubb Limited has guaranteed, on a subordinated basis, Chubb INA's obligations under the Subordinated Debentures, and distributions and other payments due on the Capital Securities. These guarantees, when taken together with Chubb's obligations under expense agreements entered into with ACE Capital Trust II, provide a full and unconditional guarantee of amounts due on the Capital Securities.

10. 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:

		December 31, 2020			December 31, 2019		
		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)	$ 22	$ (49)	$ 2,807	$ 11	$ (78)	$ 2,579
Options/Futures contracts on notes, bonds, and equities	OA / (AP)	13	(3)	1,749	13	(15)	1,615
Convertible securities [1]	FM AFS / ES	9	—	11	4	—	5
		$ 44	$ (52)	$ 4,567	$ 28	$ (93)	$ 4,199
Other derivative instruments:							
Futures contracts on equities [2]	OA / (AP)	$ —	$ (17)	$ 709	$ —	$ (13)	$ 613
Other	OA / (AP)	—	—	16	2	—	63
		$ —	$ (17)	$ 725	$ 2	$ (13)	$ 676
GLB [3]	(AP)	$ —	$ (1,089)	$ 1,658	$ —	$ (897)	$ 1,510

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 December 31, 2020 and 2019, net derivative liabilities of $30 million and $75 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.

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	
	December 31, 2020	December 31, 2019
(in millions of U.S. dollars)	Overnight and Continuous	
Collateral held under securities lending agreements:		
Cash	**$ 551**	$ 346
U.S. Treasury / Agency	**148**	6
Non-U.S.	**1,032**	595
Corporate and asset-backed securities	**30**	5
Mortgage-backed securities	**4**	18
Equity securities	**79**	24
	$ 1,844	$ 994
Gross amount of recognized liability for securities lending payable	**$ 1,844**	$ 994

At December 31, 2020 and 2019, our repurchase agreement obligations of $1,405 million and $1,416 million, respectively, were fully collateralized. In contrast to securities lending programs, the use of cash received is not restricted for the repurchase obligations. The fair value of the underlying securities sold remains in Fixed maturities available for sale, and the repurchase agreement obligation is recorded in Repurchase agreements in the Consolidated balance sheets.

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

	Remaining contractual maturity							
	December 31, 2020			December 31, 2019			
(in millions of U.S. dollars)	**30-90 Days**	**Greater than 90 Days**	**Total**	Up to 30 Days	30-90 Days	Greater than 90 Days	Total
Collateral pledged under repurchase agreements:							
Cash	**$ —**	**$ 4**	**$ 4**	$ 2	$ —	$ —	$ 2
U.S. Treasury / Agency	**—**	**106**	**106**	107	—	—	107
Mortgage-backed securities	**481**	**871**	**1,352**	399	476	480	1,355
	$ 481	**$ 981**	**$ 1,462**	$ 508	$ 476	$ 480	$ 1,464
Gross amount of recognized liabilities for repurchase agreements			**$ 1,405**				$ 1,416
Difference [1]			**$ 57**				$ 48

[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.

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

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Investment and embedded derivative instruments:			
Foreign currency forward contracts	**$ 65**	$ (79)	$ 3
Interest rate swaps	**—**	(270)	(115)
All other futures contracts, options, and equities	**16**	(88)	39
Convertible securities [1]	**—**	2	(2)
Total investment and embedded derivative instruments	**$ 81**	$ (435)	$ (75)
GLB and other derivative instruments:			
GLB	**$ (202)**	$ (4)	$ (248)
Futures contracts on equities [2]	**(108)**	(138)	(4)
Other	**1**	(8)	(3)
Total GLB and other derivative instruments	**$ (309)**	$ (150)	$ (255)
	$ (228)	$ (585)	$ (330)

[1] Includes embedded derivatives.
[2] Related to GMDB and GLB book of business.

d) Concentrations of credit risk
Our investment portfolio is managed following prudent standards of diversification. Specific provisions limit the allowable holdings of a single issue and issuer. We believe that there are no significant concentrations of credit risk associated with our investments. Our three largest corporate exposures by issuer at December 31, 2020, were Wells Fargo & Co., Bank of America Corp, and JP Morgan Chase & Co. Our largest exposure by industry at December 31, 2020 was financial services.

We market our insurance and reinsurance worldwide primarily through insurance and reinsurance brokers. We assume a degree of credit risk associated with brokers with whom we transact business. For the years ended December 31, 2020, 2019 and 2018, approximately 12 percent, 12 percent, and 10 percent, respectively, of our gross premiums written was generated from or placed by Marsh & McLennan Companies, Inc. This entity is a large, well-established company, and there are no indications that it is financially troubled at December 31, 2020. No other broker or one insured accounted for more than 10 percent of our gross premiums written for these years.

e) Fixed maturities
At December 31, 2020, we have commitments to purchase fixed income securities of $605 million over the next several years.

f) Other investments
At December 31, 2020, included in Other investments in the Consolidated balance sheet are investments in limited partnerships and partially-owned investment companies with a carrying value of $6.5 billion. In connection with these investments, we have commitments that may require funding of up to $3.2 billion over the next several years. At December 31, 2019, these investments had a carrying value of $4.7 billion with a commitment that may require funding of up to $3.3 billion.

g) Letters of credit
We have access to capital markets and to credit facilities with letter of credit capacity of $4.0 billion with a sub-limit of $1.9 billion for revolving credit. Our existing credit facilities have remaining terms expiring through October 2022. At December 31, 2020, our LOC usage was $1.7 billion.

h) 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.

i) Lease commitments

At December 31, 2020 and 2019, the right-of-use asset was $473 million and $551 million, respectively, recorded within Other assets on the Consolidated balance sheets, and the lease liability was $517 million and $603 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. As of December 31, 2020, the weighted average remaining lease term and weighted average discount rate for the operating leases was 4.9 years and 2.6 percent, respectively. Rent expense was $152 million, $171 million, and $169 million for the years ended December 31, 2020, 2019, and 2018, respectively.

Future minimum lease payments under the operating leases are expected to be as follows:

For the years ending December 31 (in millions of U.S. dollars)		
Undiscounted cash flows:		
2021	$	150
2022		123
2023		96
2024		68
2025		38
Thereafter		75
Total undiscounted lease payments	$	550
Less: Present value adjustment		33
Net lease liabilities reported as of December 31, 2020	$	517

11. Shareholders' equity

a) Common Shares

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, we are generally prohibited from issuing Common Shares below their par value. If there were a need to raise common equity at a time when the trading price of Chubb's Common Shares is below par value, we would need in advance to obtain shareholder approval to decrease the par value of the Common Shares.

Dividend approval

At our May 2019 and 2018 annual general meetings, our shareholders approved annual dividends for the following year of up to $3.00 per share and $2.92 per share, respectively, which were paid in four quarterly installments of $0.75 per share and $0.73 per share, respectively, at dates determined by the Board of Directors (Board) after the annual general meeting by way of a distribution from capital contribution reserves, transferred to free reserves for payment.

At our May 2020 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.12 per share, expected to be paid in four quarterly installments of $0.78 per share after the annual general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment. The Board will determine the record and payment dates at which the annual dividend may be paid until the date of the 2021 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion. The first three quarterly installments each of $0.78 per share, have been distributed by the Board as expected.

Dividend distributions

Under Swiss corporate law, dividends must be stated in Swiss francs though dividend payments are made by Chubb in U.S. dollars. We issue dividends without subjecting them to withholding tax by way of distributions from capital contribution reserves and payment out of free reserves.

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

	Year Ended December 31					
	2020		2019		2018	
	CHF	**USD**	CHF	USD	CHF	USD
Total dividend distributions per common share	**2.89**	**$ 3.09**	2.94	$ 2.98	2.84	$ 2.90

b) Shares issued, outstanding, authorized, and conditional

	Year Ended December 31		
	2020	2019	2018
Common Shares authorized and issued, beginning of year	**479,783,864**	479,783,864	479,783,864
Cancellation of treasury shares	**(2,178,600)**	—	—
Common Shares authorized and issued, end of year	**477,605,264**	479,783,864	479,783,864
Common Shares in treasury, beginning of year (at cost)	**(27,812,297)**	(20,580,486)	(15,950,685)
Net shares issued under employee share-based compensation plans	**2,345,208**	3,210,427	3,089,234
Shares repurchased	**(3,584,150)**	(10,442,238)	(7,719,035)
Cancellation of treasury shares	**2,178,600**	—	—
Common Shares in treasury, end of year (at cost)	**(26,872,639)**	(27,812,297)	(20,580,486)
Common Shares outstanding, end of year	**450,732,625**	451,971,567	459,203,378

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 our May 2020 annual general meeting, our shareholders approved the cancellation of 2,178,600 shares purchased under our share repurchase program during the period beginning September 23, 2019 and ending December 31, 2019. The capital reduction by cancellation of shares was subject to publication requirements and a two-month waiting period in accordance with Swiss law and became effective August 3, 2020.

Authorized share capital for general purposes under Swiss law

In accordance with Swiss law, the Board has shareholder-approved authority as set forth in the Articles of Association to increase Chubb's share capital from time to time until May 20, 2022, by the issuance for general purposes of up to 200,000,000 fully paid up Common Shares, with a par value equal to the par value of Chubb's Common Shares as set forth in the Articles of Association at the time of any such issuance. Any such increases would be subject to Swiss rules and procedure.

Conditional share capital for bonds and similar debt instruments

Chubb's share capital may be increased through the issuance of a maximum of 33,000,000 fully paid up Common Shares (with a par value of CHF 24.15 as of December 31, 2020) through the exercise of conversion and/or option or warrant rights granted in connection with bonds, notes, or similar instruments, issued or to be issued by Chubb, including convertible debt instruments.

Conditional share capital for employee benefit plans

Chubb's share capital may be increased through the issuance of a maximum of 25,410,929 fully paid up Common Shares (with a par value of CHF 24.15 as of December 31, 2020) in connection with the exercise of option rights granted to any employee of Chubb, director or other person providing services to Chubb.

c) Chubb Limited securities repurchases
From time to time, we repurchase shares as part of our capital management program and to partially offset potential dilution from the exercise of stock options and the granting of restricted stock under share-based compensation plans. The Board has authorized share repurchase programs as follows:

- $1.0 billion of Chubb Common Shares from January 1, 2018 through December 31, 2018
- $1.5 billion of Chubb Common Shares from December 1, 2018 through December 31, 2019
- $1.5 billion of Chubb Common Shares from November 21, 2019 through December 31, 2020
- $1.5 billion of Chubb Common Shares from November 19, 2020 through December 31, 2021

Subsequently, 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.

Share repurchases may be in the open market, in privately negotiated transactions, block trades, accelerated repurchases and through option or other forward transactions.

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

	Year Ended December 31			January 1, 2021 through
(in millions of U.S. dollars, except share data)	**2020**	2019	2018	February 24, 2021
Number of shares repurchased	**3,584,150**	10,442,238	7,719,035	1,971,000
Cost of shares repurchased [1]	**$ 516**	$ 1,531	$ 1,021	$ 327

[1] On April 22, 2020, we suspended share repurchases, given the economic environment and to preserve capital for both risk and opportunity. Subsequently, we announced and then resumed share repurchases on October 29, 2020.

d) General restrictions
The holders of the Common Shares are entitled to receive dividends as approved by the shareholders. Holders of Common Shares are allowed one vote per share provided that, if the controlled shares of any shareholder constitute ten percent or more of the outstanding Common Shares of Chubb, only a fraction of the vote will be allowed so as not to exceed ten percent in aggregate. Entry of acquirers of Common Shares as shareholders with voting rights in the share register may be refused if it would confer voting rights with respect to ten percent or more of the registered share capital recorded in the commercial register.

12. Share-based compensation

Chubb has share-based compensation plans which currently provide the Board the ability to grant awards of stock options, restricted stock, and restricted stock units to its employees and members of the Board.

In May 2016, our shareholders approved the Chubb Limited 2016 Long-Term Incentive Plan (the 2016 LTIP), which replaced both the ACE Limited 2004 LTIP (the 2004 LTIP) and The Chubb Corporation Long-Term Incentive Plan (2014). The 2016 LTIP is substantially similar to the 2004 LTIP in its operation and the types of awards that may be granted. Under the 2016 LTIP, Common Shares of Chubb were authorized to be issued pursuant to awards made as stock options, stock appreciation rights, performance shares, performance units, restricted stock, and restricted stock units.

Chubb principally issues restricted stock grants and stock options on a graded vesting schedule, with equal percentages of the award subject to vesting over a number of years (typically three or four). Chubb recognizes compensation cost for vesting of restricted stock and stock option grants with only service conditions on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award were, in-substance, multiple awards. We incorporate an estimate of future forfeitures in determining compensation cost for both grants of restricted stock and stock options.

In addition, Chubb grants performance-based restricted stock to certain executives that vest based on certain performance criteria as compared to a defined group of peer companies. Performance-based stock awards comprise target awards and premium awards that cliff vest at the end of a 3-year performance period based on both our tangible book value (shareholders' equity less goodwill and intangible assets, net of tax) per share growth and P&C combined ratio compared to our peer group. Premium awards are subject to an additional vesting provision based on total shareholder return (TSR) compared to our peer

group. Shares representing target awards and premium awards are issued when the awards are approved and are subject to forfeiture if applicable performance criteria are not met at the end of the 3-year performance period. Prior to January 2017, performance-based restricted stock awards had a 4-year vesting period with the potential to vest as to a portion each year, and excluded the P&C combined ratio and TSR additional vesting criteria.

Under the 2016 LTIP, 19,500,000 Common Shares are authorized to be issued. This is in addition to any shares that have not been delivered pursuant to the 2004 LTIP and remain available for grant pursuant to the 2004 LTIP and includes any shares covered by awards granted under the 2004 LTIP that have forfeited, expired or canceled after the effective date of the 2016 LTIP. At December 31, 2020, a total of 7,576,239 shares remain available for future issuance under the 2016 LTIP, which includes shares canceled or forfeited from the 2004 LTIP, in addition to common shares that were previously registered and authorized to be issued.

Under the Employee Stock Purchase Plan (ESPP), 6,500,000 shares are authorized to be issued. At December 31, 2020, a total of 1,402,017 shares remain available for issuance under the ESPP.

Chubb generally issues Common Shares for the exercise of stock options, restricted stock, and purchases under the ESPP from Common Shares in treasury.

The following table presents pre-tax and after-tax share-based compensation expense:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Stock options and shares issued under ESPP:			
Pre-tax	**$ 45**	$ 42	$ 50
After-tax [1]	**$ 38**	$ 39	$ 40
Restricted stock:			
Pre-tax	**$ 210**	$ 224	$ 235
After-tax [1]	**$ 164**	$ 180	$ 178

[1] The windfall tax benefit recorded to Income tax expense in the Consolidated statement of operations was $10 million, $12 million, and $19 million for the years ended December 31, 2020, 2019, and 2018, respectively.

Unrecognized compensation expense related to the unvested portion of Chubb's employee share-based awards of restricted stock, restricted stock units, and stock options was $199 million at December 31, 2020 and is expected to be recognized over a weighted-average period of approximately 1 year.

Stock options
Both incentive and non-qualified stock options are principally granted 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 vest in equal annual installments over the respective vesting period, which is also the requisite service period.

Chubb's 2020 share-based compensation expense includes a portion of the cost related to the 2017 through 2020 stock option grants. Stock option fair value was estimated on the grant date using the Black-Scholes option-pricing model that uses the weighted-average assumptions noted below:

	Year Ended December 31		
	2020	2019	2018
Dividend yield	**2.1 %**	2.2 %	2.0 %
Expected volatility	**18.0 %**	16.0 %	23.2 %
Risk-free interest rate	**1.2 %**	2.6 %	2.7 %
Expected life	**5.7 years**	5.7 years	5.7 years

The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. The expected life (estimated period of time from grant to exercise date) is estimated using the historical exercise behavior of employees. For years 2020 and 2019, expected volatility is calculated as a blend of (a) historical volatility based on daily closing prices over a period equal to

the expected life assumption and (b) implied volatility derived from Chubb's publicly traded options. For year 2018, expected volatility was calculated as a blend of (a) historical volatility based on daily closing prices over a period equal to the expected life assumption, (b) long-term historical volatility based on daily closing prices over the period from Chubb's initial public trading date through the most recent quarter, and (c) implied volatility derived from Chubb's publicly traded options.

The following table presents a roll-forward of Chubb's stock options:

(Intrinsic Value in millions of U.S. dollars)	Number of Options	Weighted-Average Exercise Price	Weighted-Average Fair Value	Total Intrinsic Value
Options outstanding, December 31, 2017	10,433,316	$ 99.20		
Granted	1,842,690	$ 143.07	$ 29.71	
Exercised	(1,065,384)	$ 73.57		$ 71
Forfeited and expired	(202,900)	$ 133.92		
Options outstanding, December 31, 2018	11,007,722	$ 108.25		
Granted	2,073,940	$ 133.90	$ 18.76	
Exercised	(1,944,604)	$ 84.13		$ 122
Forfeited and expired	(251,801)	$ 136.87		
Options outstanding, December 31, 2019	10,885,257	$ 116.79		
Granted	**1,958,279**	**$ 150.10**	**$ 19.89**	
Exercised	**(1,158,633)**	**$ 86.90**		**$ 76**
Forfeited and expired	**(206,720)**	**$ 138.77**		
Options outstanding, December 31, 2020	**11,478,183**	**$ 125.09**		**$ 331**
Options exercisable, December 31, 2020	**7,792,343**	**$ 116.35**		**$ 293**

The weighted-average remaining contractual term was 6.0 years for stock options outstanding and 4.8 years for stock options exercisable at December 31, 2020. Cash received from the exercise of stock options for the year ended December 31, 2020 was $100 million.

Restricted stock and restricted stock units
Grants of restricted stock and restricted stock units awarded under both the 2004 LTIP and 2016 LTIP typically have a 4-year vesting period, subject to vesting as to one-quarter of the award each anniversary of grant. Restricted stock and restricted stock units are granted at market close price on the day of grant. Each restricted stock unit represents our obligation to deliver to the holder one Common Share upon vesting.

Chubb also grants restricted stock awards to non-management directors which vest at the following year's annual general meeting.

Chubb's 2020 share-based compensation expense includes a portion of the cost related to the restricted stock granted in the years 2016 through 2020.

The following table presents a roll-forward of our restricted stock awards. Included in the roll-forward below are 27,679 restricted stock awards, 19,019 restricted stock awards, and 20,784 restricted stock awards that were granted to non-management directors during the years ended December 31, 2020, 2019, and 2018, respectively:

	Service-based Restricted Stock Awards and Restricted Stock Units		Performance-based Restricted Stock Awards and Restricted Stock Units	
	Number of Shares	Weighted-Average Grant-Date Fair Value	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested restricted stock, December 31, 2017	4,709,442	$ 121.16	975,497	$ 118.28
Granted	1,326,979	$ 142.76	180,065	$ 143.07
Vested	(2,545,090)	$ 114.83	(244,332)	$ 103.03
Forfeited	(196,482)	$ 131.06	—	$ —
Unvested restricted stock, December 31, 2018	3,294,849	$ 134.17	911,230	$ 127.27
Granted	1,492,900	$ 134.38	212,059	$ 133.90
Vested	(1,292,864)	$ 129.18	(196,640)	$ 115.62
Forfeited	(200,875)	$ 135.98	(50,437)	$ 132.36
Unvested restricted stock, December 31, 2019	3,294,010	$ 136.20	876,212	$ 131.16
Granted	**1,425,667**	**$ 148.56**	**186,291**	**$ 151.14**
Vested	**(1,304,308)**	**$ 134.02**	**(490,185)**	**$ 125.66**
Forfeited	**(152,074)**	**$ 140.72**	—	$ —
Unvested restricted stock, December 31, 2020	**3,263,295**	**$ 142.32**	**572,318**	**$ 142.38**

Prior to 2009, legacy ACE granted restricted stock units with a 1-year vesting period to non-management directors. Delivery of Common Shares on account of these restricted stock units to non-management directors is deferred until after the date of the non-management directors' termination from the Board. Legacy Chubb Corp historically allowed directors and certain key employees of Chubb Corp and its subsidiaries to defer a portion of their compensation earned with respect to services performed in the form of deferred stock units. In addition, legacy Chubb Corp provided supplemental retirement benefits for certain employees through its Defined Contribution Excess Benefit Plan in the form of deferred shares of stock. The minimum vesting period under these legacy Chubb Corp deferred plans was 1-year and the maximum was 3-years. Employees and directors had the option to elect to receive their awards at a future specified date or upon their termination of service with Chubb. At December 31, 2020, there were 166,624 deferred restricted stock units.

ESPP

The ESPP gives participating employees the right to purchase Common Shares through payroll deductions during consecutive subscription periods at a purchase price of 85 percent of the fair value of a Common Share on the exercise date (Purchase Price). Annual purchases by participants are limited to the number of whole shares that can be purchased by an amount equal to ten percent of the participant's compensation or $25,000, whichever is less. The ESPP has two six-month subscription periods each year, the first of which runs between January 1 and June 30 and the second of which runs between July 1 and December 31. The amounts collected from participants during a subscription period are used on the exercise date to purchase full shares of Common Shares. An exercise date is generally the last trading day of a subscription period. The number of shares purchased is equal to the total amount, at the exercise date, collected from the participants through payroll deductions for that subscription period, divided by the Purchase Price, rounded down to the next full share. Participants may withdraw from an offering before the exercise date and obtain a refund of amounts withheld through payroll deductions. Pursuant to the provisions of the ESPP, during the years ended December 31, 2020, 2019, and 2018, employees paid $45 million, $41 million, and $37 million to purchase 383,751 shares, 321,800 shares, and 347,116 shares, respectively.

13. Postretirement benefits

Chubb provides postretirement benefits to eligible employees and their dependents through various defined contribution plans sponsored by Chubb. In addition, for certain employees, Chubb sponsors other postretirement benefit plans, and prior to 2020, Chubb sponsored defined benefit pension plans.

Defined contribution plans (including 401(k))
Under these plans, employees' contributions may be supplemented by Chubb matching contributions based on the level of employee contribution. These contributions are invested at the election of each employee in one or more of several investment portfolios offered by a third-party investment advisor. Expenses for these plans totaled $211 million, $171 million, and $171 million for the years ended December 31, 2020, 2019, and 2018, respectively.

Defined benefit pension plans
We maintain non-contributory defined benefit pension plans that cover certain employees located in the U.S., U.K., Canada, and various other statutorily required countries. We account for pension benefits using the accrual method. Benefits under these plans are based on employees' years of service and compensation during final years of service. All underlying plans are subject to periodic actuarial valuations by qualified actuarial firms using actuarial models to calculate the expense and liability for each plan. We use December 31 as the measurement date for our defined benefit pension plans.

Under the Chubb Corp plans, prior to 2001, benefits were generally based on an employee's years of service and average compensation during the last five years of employment. Effective January 1, 2001, the formula for providing pension benefits was changed from the final average pay formula to a cash balance formula. Under the cash balance formula, a notional account is established for each employee, which is credited semi-annually with an amount equal to a percentage of eligible compensation based on age and years of service plus interest based on the account balance. Chubb Corp employees hired prior to 2001 will generally be eligible to receive vested benefits based on the higher of the final average pay or cash balance formulas.

Other postretirement benefit plans
Our assumption of Chubb Corp's other postretirement benefit plans, principally healthcare and life insurance, covers retired employees, their beneficiaries, and covered dependents. Healthcare coverage is contributory. Retiree contributions vary based upon the retiree's age, type of coverage, and years of service requirements. Life insurance coverage is non-contributory. Chubb funds a portion of the healthcare benefits obligation where such funding can be accomplished on a tax-effective basis. Benefits are paid as covered expenses are incurred.

Amendments to U.S. qualified and excess pension plans and U.S. retiree healthcare plan
On October 31, 2016, we harmonized and amended several of our U.S. retirement programs to create a unified retirement savings program. In 2020, we transitioned from a traditional defined benefit pension program that had been in effect for certain employees to a defined contribution program. Additionally, after 2025, we plan to eliminate a subsidized U.S. retiree healthcare and life insurance plan that had been in place for certain employees. Both amendments required a remeasurement of the plan assets and benefit obligations with updated assumptions, including discount rates and the expected return on assets. The amendment of the retiree healthcare plan resulted in a reduction in the obligation of $383 million, of which $410 million will be amortized as a reduction to expense through 2021 as it relates to benefits already accrued. For the years ended December 31, 2020, 2019, and 2018, $79 million, $79 million, and $80 million, respectively, were amortized as a reduction to expense. At December 31, 2020, the remaining curtailment benefit balance was $26 million which will be amortized as a reduction to expense through June 2021.

Obligations and funded status

The funded status of the pension and other postretirement benefit plans as well as the amounts recognized in Accumulated other comprehensive income at December 31, 2020 and 2019 was as follows:

	Pension Benefit Plans				Other Postretirement Benefit Plans	
	2020		2019		**2020**	2019
(in millions of U.S. dollars)	**U.S. Plans**	**Non-U.S. Plans**	U.S. Plans	Non-U.S. Plans		
Benefit obligation, beginning of year	**$ 3,569**	**$ 1,042**	$ 3,092	$ 942	**$ 103**	$ 113
Service cost	**—**	**4**	49	11	**1**	—
Interest cost	**99**	**22**	118	27	**2**	4
Actuarial loss (gain)	**441**	**135**	443	124	**1**	3
Benefits paid	**(127)**	**(31)**	(121)	(39)	**(20)**	(17)
Curtailments	**—**	**(2)**	—	(4)	**—**	—
Settlements	**(15)**	**—**	(12)	(61)	**—**	—
Foreign currency revaluation and other	**—**	**29**	—	42	**(1)**	—
Benefit obligation, end of year	**$ 3,967**	**$ 1,199**	$ 3,569	$ 1,042	**$ 86**	$ 103
Plan assets at fair value, beginning of year	**$ 3,301**	**$ 1,141**	$ 2,784	$ 1,008	**$ 152**	$ 143
Actual return on plan assets	**563**	**126**	636	169	**6**	9
Employer contributions	**17**	**19**	14	16	**1**	—
Benefits paid	**(127)**	**(31)**	(121)	(39)	**(39)**	—
Settlements	**(15)**	**—**	(12)	(61)	**—**	—
Foreign currency revaluation and other	**—**	**29**	—	48	**—**	—
Plan assets at fair value, end of year	**$ 3,739**	**$ 1,284**	$ 3,301	$ 1,141	**$ 120**	$ 152
Funded status at end of year	**$ (228)**	**$ 85**	$ (268)	$ 99	**$ 34**	$ 49
Amounts recognized in Accumulated other comprehensive income, not yet recognized in net periodic cost (benefit):						
Net actuarial loss (gain)	**$ 78**	**$ 163**	$ (21)	$ 110	**$ (5)**	$ (3)
Prior service cost (benefit)	**—**	**9**	—	10	**(31)**	(114)
Total	**$ 78**	**$ 172**	$ (21)	$ 120	**$ (36)**	$ (117)

For the U.S. pension plans, the $441 million and $443 million actuarial loss experienced in 2020 and 2019, respectively, was principally driven by the decrease in the discount rate from the respective prior year.

The accumulated benefit obligation for the pension benefit plans was $5.1 billion and $4.6 billion at December 31, 2020 and 2019, respectively. The accumulated benefit obligation is the present value of pension benefits earned as of the measurement date based on employee service and compensation prior to that date. It differs from the pension (projected) benefit obligation in the table above in that the accumulated benefit obligation includes no assumptions regarding future compensation levels.

The net components of the funded status of the pension and other postretirement benefit plans are included in Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets.

Chubb's funding policy is to contribute amounts that meet regulatory requirements plus additional amounts determined based on actuarial valuations, market conditions and other factors. All benefit plans satisfy minimum funding requirements of the Employee Retirement Income Security Act of 1974 (ERISA).

The following table provides information on pension plans where the benefit obligation is in excess of plan assets at December 31, 2020 and 2019:

	2020		2019	
(in millions of U.S. dollars)	**U.S. Plans**	**Non-U.S. Plans**	U.S. Plans	Non-U.S. Plans
Plans with projected benefit obligation in excess of plan assets:				
Projected benefit obligation	**$ 3,967**	**$ 629**	$ 3,569	$ 236
Fair value of plan assets	**3,739**	**568**	3,301	175
Net funded status	**$ (228)**	**$ (61)**	$ (268)	$ (61)
Plans with accumulated benefit obligation in excess of plan assets:				
Accumulated benefit obligation	**$ 3,967**	**$ 593**	$ 3,569	$ 173
Fair value of plan assets	**$ 3,739**	**$ 565**	$ 3,301	$ 140

For other postretirement benefit plans with an accumulated benefit obligation in excess of plan assets, the accumulated benefit obligation was $23 million and $25 million at December 31, 2020 and 2019, respectively. These plans have no plan assets.

At December 31, 2020, we estimate that we will contribute $20 million to the pension plans and $1 million to the other postretirement benefits plan in 2021. The estimate is subject to change due to contribution decisions that are affected by various factors including our liquidity, market performance and management discretion.

At December 31, 2020, our estimated expected future benefit payments are as follows:

	Pension Benefit Plans		
For the years ending December 31 (in millions of U.S. dollars)	U.S. Plans	Non-U.S. Plans	Other Postretirement Benefit Plans
2021	$ 159	$ 30	$ 19
2022	166	28	20
2023	171	30	16
2024	175	32	12
2025	180	32	7
2026-2030	947	185	5

The weighted-average assumptions used to determine the projected benefit obligation were as follows:

	Pension Benefit Plans		
	U.S. Plans	Non-U.S. Plans	Other Postretirement Benefit Plans
December 31, 2020			
Discount rate	**2.32 %**	**1.80 %**	**1.36 %**
Rate of compensation increase [1]	**N/A**	**3.24 %**	**N/A**
Interest crediting rate	**4.10 %**		
December 31, 2019			
Discount rate	3.20 %	2.39 %	2.70 %
Rate of compensation increase [1]	N/A	3.26 %	N/A
Interest crediting rate	4.10 %		

[1] For the U.S. Pension Plans, benefit accruals were frozen as of December 31, 2019.

The projected benefit cash flows were discounted using the corresponding spot rates derived from a yield curve, which resulted in a single discount rate that would produce the same liability at the respective measurement dates. The same process was applied to service cost cash flows to determine the discount rate associated with the service cost. In general, the discount rates for the non-U.S. plans were developed using a similar methodology by using country-specific yield curves.

The components of net pension and other postretirement benefit costs reflected in Net income and other changes in plan assets and benefit obligations recognized in other comprehensive income were as follows:

	Pension Benefit Plans						Other Postretirement Benefit Plans		
	U.S. Plans			Non-U.S. Plans					
Year Ended December 31 (in millions of U.S. dollars)	**2020**	2019	2018	**2020**	2019	2018	**2020**	2019	2018
Costs reflected in Net income:									
Service cost	**$ —**	$ 49	$ 57	**$ 4**	$ 11	$ 12	**$ 1**	$ —	$ 1
Non-service cost:									
Interest cost	**99**	118	105	**22**	27	27	**2**	4	3
Expected return on plan assets	**(224)**	(189)	(212)	**(41)**	(45)	(50)	**(5)**	(4)	(5)
Amortization of net actuarial loss	**—**	—	—	**2**	3	1	**—**	—	—
Amortization of prior service cost	**—**	—	—	**—**	—	—	**(83)**	(84)	(85)
Curtailments	**—**	—	—	**(1)**	(1)	—	**—**	—	(2)
Settlements	**3**	2	2	**—**	1	3	**—**	—	—
Total non-service benefit	**(122)**	(69)	(105)	**(18)**	(15)	(19)	**(86)**	(84)	(89)
Net periodic benefit	**$ (122)**	$ (20)	$ (48)	**$ (14)**	$ (4)	$ (7)	**$ (85)**	$ (84)	$ (88)
Changes in plan assets and benefit obligations recognized in other comprehensive income									
Net actuarial loss (gain)	**$ 102**	$ (4)	$ 214	**$ 56**	$ 6	$ 34	**$ (2)**	$ (2)	$ (11)
Prior service cost (benefit)	**—**	—	—	**—**	1	3	**—**	—	—
Amortization of net actuarial loss	**—**	—	—	**(2)**	(3)	(1)	**—**	—	(1)
Amortization of prior service cost	**—**	—	—	**(1)**	—	—	**83**	84	85
Curtailments	**—**	—	—	**(1)**	(3)	—	**—**	—	3
Settlements	**(3)**	(2)	(2)	**—**	(1)	(3)	**—**	—	—
Total decrease (increase) in other comprehensive income	**$ 99**	$ (6)	$ 212	**$ 52**	$ —	$ 33	**$ 81**	$ 82	$ 76

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

	Pension Benefit Plans			Other Postretirement Benefit Plans		
Year Ended December 31 (in millions of U.S. dollars)	**2020**	2019	2018	**2020**	2019	2018
Service cost:						
Losses and loss expenses	**$ —**	$ 6	$ 7	**$ —**	$ —	$ —
Administrative expenses	**4**	54	62	**1**	—	1
Total service cost	**4**	60	69	**1**	—	1
Non-service cost:						
Losses and loss expenses	**(12)**	(7)	(10)	**(9)**	(8)	(9)
Administrative expenses	**(128)**	(77)	(114)	**(77)**	(76)	(80)
Total non-service benefit	**(140)**	(84)	(124)	**(86)**	(84)	(89)
Net periodic benefit	**$ (136)**	$ (24)	$ (55)	**$ (85)**	$ (84)	$ (88)

The weighted-average assumptions used to determine the net periodic pension and other postretirement benefit costs were as follows:

	Pension Benefit Plans		
Year Ended December 31	U.S. Plans	Non-U.S. Plans	Other Postretirement Benefit Plans
2020			
Discount rate in effect for determining service cost	**N/A**	**6.04 %**	**3.00 %**
Discount rate in effect for determining interest cost	**2.85 %**	**2.24 %**	**2.64 %**
Rate of compensation increase	**N/A**	**3.26 %**	**N/A**
Expected long-term rate of return on plan assets	**7.00 %**	**3.83 %**	**3.00 %**
Interest crediting rate	**4.10 %**	**N/A**	**N/A**
2019			
Discount rate in effect for determining service cost	4.23 %	4.48 %	4.04 %
Discount rate in effect for determining interest cost	3.94 %	2.88 %	3.69 %
Rate of compensation increase	4.00 %	3.37 %	N/A
Expected long-term rate of return on plan assets	7.00 %	4.40 %	3.00 %
Interest crediting rate	4.10 %	N/A	N/A
2018			
Discount rate in effect for determining service cost	3.62 %	3.97 %	2.84 %
Discount rate in effect for determining interest cost	3.27 %	2.55 %	2.62 %
Rate of compensation increase	4.00 %	3.46 %	N/A
Expected long-term rate of return on plan assets	7.00 %	4.32 %	2.59 %
Interest crediting rate	4.10 %	N/A	N/A

The weighted-average healthcare cost trend rate assumptions used to measure the expected cost of healthcare benefits were as follows:

	U.S. Plans			Non-U.S. Plans		
	2020	2019	2018	**2020**	2019	2018
Healthcare cost trend rate	**5.96 %**	6.32 %	6.68 %	**5.04 %**	5.24 %	6.29 %
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	**4.50 %**	4.50 %	4.50 %	**4.00 %**	4.00 %	4.50 %
Year that the rate reaches the ultimate trend rate	**2038**	2038	2038	**2040**	2040	2029

Plan Assets

The long term objective of the pension plan is to provide sufficient funding to cover expected benefit obligations, while assuming a prudent level of portfolio risk. The assets of the pension plan are invested, either directly or through pooled funds, in a diversified portfolio of predominately equity securities and fixed maturities. We seek to obtain a rate of return that over time equals or exceeds the returns of the broad markets in which the plan assets are invested. The target allocation of U.S. plan assets is 55 percent to 65 percent invested in equity securities (including certain other investments measured using NAV), with the remainder primarily invested in fixed maturities. The target allocation of non-U.S. plans varies by country, but the plan assets are principally invested in fixed maturities. We rebalance our pension assets to the target allocation as market conditions permit. We determined the expected long term rate of return assumption for each asset class based on an analysis of the historical returns and the expectations for future returns. The expected long term rate of return for the portfolio is a weighted aggregation of the expected returns for each asset class.

In order to minimize risk, the Plan maintains a listing of permissible and prohibited investments. In addition, the Plan has certain concentration limits and investment quality requirements imposed on permissible investments options. Investment risk is measured and monitored on an ongoing basis.

The following tables present the fair values of the pension plan assets, by valuation hierarchy. For additional information on how we classify these assets within the valuation hierarchy, refer to Note 4 to the Consolidated Financial Statements.

December 31, 2020				Pension Benefit Plans
(in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total
U.S. Plans:				
Short-term investments	$ 59	$ —	$ —	$ 59
U.S. Treasury / Agency	250	186	—	436
Non-U.S. and corporate bonds	—	793	—	793
Municipal	—	2	—	2
Equity securities	1,818	—	—	1,818
Total U.S. Plan assets [1]	$ 2,127	$ 981	$ —	$ 3,108
Non-U.S. Plans:				
Short-term investments	$ 5	$ —	$ —	$ 5
Non-U.S. and corporate bonds	—	609	—	609
Equity securities	127	388	—	515
Total Non-U.S. Plan assets [1]	$ 132	$ 997	$ —	$ 1,129

[1] Excluded from the table above are $543 million and $147 million of other investments related to the U.S. Plans and Non-U.S. Plans, respectively, limited partnerships of $74 million and $8 million in U.S. Plans and Non-U.S. Plans, respectively, measured using NAV as a practical expedient, and $14 million in cash related to the U.S. Plans.

December 31, 2019				Pension Benefit Plans
(in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total
U.S. Plans:				
Short-term investments	$ 18	$ 37	$ —	$ 55
U.S. Treasury / Agency	466	134	—	600
Non-U.S. and corporate bonds	—	749	—	749
Municipal	—	2	—	2
Equity securities	1,467	—	—	1,467
Total U.S. Plan assets [1]	$ 1,951	$ 922	$ —	$ 2,873
Non-U.S. Plans:				
Short-term investments	$ 2	$ —	$ —	$ 2
Non-U.S. and corporate bonds	—	598	—	598
Equity securities	112	318	—	430
Total Non-U.S. Plan assets [1]	$ 114	$ 916	$ —	$ 1,030

[1] *Excluded from the table above are $428 million and $107 million of other investments related to the U.S. Plans and Non-U.S. Plans, respectively, and limited partnerships of $4 million in Non-U.S. Plans, measured using NAV as a practical expedient.*

The other postretirement benefit plan had $120 million and $152 million of other investments measured using NAV as a practical expedient at December 31, 2020 and 2019, respectively.

14. Other income and expense

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Equity in net income of partially-owned entities [1]	**$ 1,019**	$ 617	$ 514
Gains (losses) from fair value changes in separate account assets [2]	**58**	44	(38)
Federal excise and capital taxes	**(22)**	(23)	(12)
Other	**(61)**	(42)	(30)
Total	**$ 994**	$ 596	$ 434

[1] *Equity in net income of partially-owned entities includes $167 million, $74 million, and $43 million attributable to our investments in Huatai (Huatai Group, Huatai P&C, and Huatai Life) for the years ended December 31, 2020, 2019, and 2018, 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.

15. 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. These segments distribute their products through various forms of brokers, agencies, and direct marketing programs. All business segments have established relationships with reinsurance intermediaries.

- The North America Commercial P&C Insurance segment provides both commercial and consumer P&C products and services. This segment includes the business written by Chubb divisions that provide property and casualty (P&C) insurance and services to large, middle market and small commercial businesses in the U.S., Canada, and Bermuda. This segment includes our retail divisions: Major Accounts, Commercial Insurance, including Small Commercial Insurance; and our

wholesale and specialty divisions: Westchester and Chubb Bermuda. These divisions write a variety of coverages, including property, casualty, workers' compensation, package policies, risk management, financial lines, marine, construction, environmental, medical risk, cyber risk, surety, and excess casualty; as well as group accident and health (A&H) insurance.

- The North America Personal P&C Insurance segment includes the business written by Chubb Personal Risk Services division, which includes high net worth personal lines business, with operations in the U.S. and Canada. This segment provides affluent and high net worth individuals and families with homeowners, automobile and collector cars, valuable articles (including fine arts), personal and excess liability, travel insurance, and recreational marine insurance and services.

- The North America Agricultural Insurance segment includes the business written by Rain and Hail Insurance Service, Inc. in the U.S. and Canada, which provides comprehensive multiple peril crop insurance (MPCI) and crop-hail insurance, and Chubb Agribusiness, which offers farm and ranch property as well as specialty P&C coverages, including commercial agriculture products.

- The Overseas General Insurance segment includes the business written by two Chubb divisions that provides both commercial and consumer P&C insurance and services in the 51 countries and territories outside of North America where the company operates. Chubb International provides commercial P&C, A&H and traditional and specialty personal lines for large corporations, middle markets and small customers through retail brokers, agents and other channels locally around the world. Chubb Global Markets (CGM) provides commercial P&C excess and surplus lines and A&H through wholesale brokers in the London market and through Lloyd's. These divisions write a variety of coverages, including traditional commercial P&C, specialty categories such as financial lines, marine, energy, aviation, political risk and construction, as well as group A&H and traditional and specialty personal lines.

- The Global Reinsurance segment includes the reinsurance business written by Chubb Tempest Re, comprising Chubb Tempest Re Bermuda, Chubb Tempest Re USA, Chubb Tempest Re International, and Chubb Tempest Re Canada. Chubb Tempest Re provides a broad range of traditional and specialty reinsurance coverages to a diverse array of primary P&C companies, including small, mid-sized, and multinational ceding companies.

- The Life Insurance segment includes international life operations written by Chubb Life and Chubb Tempest Life Re, and the North American supplemental A&H and life business of Combined Insurance.

Corporate primarily includes the results of all run-off asbestos and environmental (A&E) exposures, run-off Brandywine business, Westchester specialty operations for 1996 and prior years, and certain other non-A&E run-off exposures. In addition, Corporate includes the results of our non-insurance companies including Chubb Limited, Chubb Group Management and Holdings Ltd., and Chubb INA Holdings Inc. Our exposure to A&E claims principally arises out of liabilities acquired when we purchased Westchester Specialty in 1998, CIGNA's P&C business in 1999, and The Chubb Corporation (Chubb Corp) in 2016.

In addition, revenue and expenses managed at the corporate level, including realized gains and losses, interest expense, the non-operating income of our partially-owned entities, Chubb integration expenses and income taxes are reported within Corporate. In addition, the amortization expense of purchased intangibles, amortization of the fair value adjustment on acquired invested assets and assumed long-term debt as part of the Chubb Corp acquisition are considered Corporate costs as these are incurred by the overall company. The Chief Executive Officer does not manage segment results or allocate resources to segments when considering these costs and they are therefore excluded from our definition of segment income (loss).

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. Segment income (loss) includes underwriting income (loss), net investment income (loss), and other operating income and expense items such as each segment's share of the operating income (loss) related to partially-owned insurance companies and miscellaneous income and expense items for which the segments are held accountable. Our main measure of segment performance is Segment income (loss), which also includes 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. To calculate Segment income (loss), include Net investment income (loss), Other (income) expense, and Amortization expense of purchased intangibles. 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 Year Ended December 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	**$ 14,474**	**$ 4,920**	**$ 1,846**	**$ 9,335**	**$ 731**	**$ 2,514**	**$ —**	**$ —**	**$ 33,820**
Net premiums earned	**13,964**	**4,866**	**1,822**	**9,285**	**698**	**2,482**	**—**	**—**	**33,117**
Losses and loss expenses	**10,129**	**3,187**	**1,544**	**5,255**	**435**	**724**	**435**	**1**	**21,710**
Policy benefits	**—**	**—**	**—**	**—**	**—**	**726**	**—**	**58**	**784**
Policy acquisition costs	**1,942**	**974**	**123**	**2,568**	**174**	**766**	**—**	**—**	**6,547**
Administrative expenses	**1,006**	**270**	**9**	**1,034**	**37**	**320**	**303**	**—**	**2,979**
Underwriting income (loss)	**887**	**435**	**146**	**428**	**52**	**(54)**	**(738)**	**(59)**	**1,097**
Net investment income (loss)	**2,061**	**260**	**30**	**534**	**307**	**385**	**(87)**	**(115)**	**3,375**
Other (income) expense	**23**	**5**	**1**	**13**	**2**	**(74)**	**(791)**	**(173)**	**(994)**
Amortization expense of purchased intangibles	**—**	**11**	**27**	**45**	**—**	**4**	**203**	**—**	**290**
Segment income (loss)	**$ 2,925**	**$ 679**	**$ 148**	**$ 904**	**$ 357**	**$ 401**	**$ (237)**	**$ (1)**	**$ 5,176**
Net realized gains (losses)							**(499)**	**1**	**(498)**
Interest expense							**516**	**—**	**516**
Income tax expense							**629**	**—**	**629**
Net income (loss)							**$ (1,881)**	**$ —**	**$ 3,533**

For the Year Ended December 31, 2019 (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	$ 13,375	$ 4,787	$ 1,810	$ 9,262	$ 649	$ 2,392	$ —	$ —	$ 32,275
Net premiums earned	12,922	4,694	1,795	8,882	654	2,343	—	—	31,290
Losses and loss expenses	8,206	3,043	1,616	4,606	352	757	158	(8)	18,730
Policy benefits	—	—	—	—	—	696	—	44	740
Policy acquisition costs	1,831	948	84	2,501	169	620	—	—	6,153
Administrative expenses	1,028	286	6	1,033	35	323	319	—	3,030
Underwriting income (loss)	1,857	417	89	742	98	(53)	(477)	(36)	2,637
Net investment income (loss)	2,109	258	30	588	279	373	(125)	(86)	3,426
Other (income) expense	24	3	1	12	1	(48)	(459)	(130)	(596)
Amortization expense of purchased intangibles	—	12	28	45	—	2	218	—	305
Segment income (loss)	$ 3,942	$ 660	$ 90	$ 1,273	$ 376	$ 366	$ (361)	$ 8	$ 6,354
Net realized gains (losses) including OTTI							(522)	(8)	(530)
Interest expense							552	—	552
Chubb integration expenses							23	—	23
Income tax expense							795	—	795
Net income (loss)							$ (2,253)	$ —	$ 4,454

For the Year Ended December 31, 2018 (in millions of U.S. dollars)	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Life Insurance	Corporate	Segment Measure Reclass	Chubb Consolidated
Net premiums written	$ 12,485	$ 4,674	$ 1,577	$ 8,902	$ 671	$ 2,270	$ —	$ —	$ 30,579
Net premiums earned	12,402	4,593	1,569	8,612	670	2,218	—	—	30,064
Losses and loss expenses	8,000	3,229	1,114	4,429	479	766	53	(3)	18,067
Policy benefits	—	—	—	—	—	628	—	(38)	590
Policy acquisition costs	1,829	939	79	2,346	162	557	—	—	5,912
Administrative expenses	966	269	(9)	1,014	41	310	295	—	2,886
Underwriting income (loss)	1,607	156	385	823	(12)	(43)	(348)	41	2,609
Net investment income (loss)	2,061	236	28	622	289	341	(209)	(63)	3,305
Other (income) expense	3	1	2	3	—	(12)	(406)	(25)	(434)
Amortization expense of purchased intangibles	—	13	28	41	—	2	255	—	339
Segment income (loss)	$ 3,665	$ 378	$ 383	$ 1,401	$ 277	$ 308	$ (406)	$ 3	$ 6,009
Net realized gains (losses) including OTTI							(649)	(3)	(652)
Interest expense							641	—	641
Chubb integration expenses							59	—	59
Income tax expense							695	—	695
Net income (loss)							$ (2,450)	$ —	$ 3,962

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.

The following table presents net premiums earned for each segment by line of business:

	For the Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
North America Commercial P&C Insurance			
Property & other short-tail lines	**$ 2,423**	$ 1,987	$ 1,861
Casualty & all other	**10,812**	10,136	9,773
A&H	**729**	799	768
Total North America Commercial P&C Insurance	**13,964**	12,922	12,402
North America Personal P&C Insurance			
Personal automobile	**822**	829	803
Personal homeowners	**3,327**	3,183	3,127
Personal other	**717**	682	663
Total North America Personal P&C Insurance	**4,866**	4,694	4,593
North America Agricultural Insurance	**1,822**	1,795	1,569
Overseas General Insurance			
Property & other short-tail lines	**2,468**	2,244	2,134
Casualty & all other	**2,738**	2,494	2,429
Personal lines	**1,981**	1,896	1,784
A&H	**2,098**	2,248	2,265
Total Overseas General Insurance	**9,285**	8,882	8,612
Global Reinsurance			
Property	**104**	131	123
Property catastrophe	**173**	142	170
Casualty & all other	**421**	381	377
Total Global Reinsurance	**698**	654	670
Life Insurance			
Life	**1,317**	1,101	1,022
A&H	**1,165**	1,242	1,196
Total Life Insurance	**2,482**	2,343	2,218
Total net premiums earned	**$ 33,117**	$ 31,290	$ 30,064

The following table presents net premiums earned by geographic region. Allocations have been made on the basis of location of risk:

	North America	Europe [1]	Asia Pacific / Far East	Latin America
2020	**70 %**	**11 %**	**12 %**	**7 %**
2019	70 %	11 %	12 %	7 %
2018	70 %	11 %	12 %	7 %

[1] Europe includes Eurasia and Africa regions.

16. Earnings per share

(in millions of U.S. dollars, except share and per share data)	Year Ended December 31 2020	2019	2018
Numerator:			
Net income	**$ 3,533**	$ 4,454	$ 3,962
Denominator:			
Denominator for basic earnings per share:			
Weighted-average shares outstanding	**451,602,820**	455,910,463	463,629,203
Denominator for diluted earnings per share:			
Share-based compensation plans	**1,838,692**	3,004,200	3,173,145
Weighted-average shares outstanding and assumed conversions	**453,441,512**	458,914,663	466,802,348
Basic earnings per share	**$ 7.82**	$ 9.77	$ 8.55
Diluted earnings per share	**$ 7.79**	$ 9.71	$ 8.49
Potential anti-dilutive share conversions	**6,811,966**	2,410,337	3,543,188

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

17. Related party transactions

Starr Indemnity & Liability Company and its affiliates (collectively, Starr)
We have a number of agency and reinsurance agreements with Starr, the Chairman of which is related to a member of our senior management team. The Board has reviewed and approved our arrangements with Starr. We have agency, claims services and underwriting services agreements with various Starr subsidiaries. Under the agency agreement, we secure the ability to sell our insurance policies through Starr as one of our non-exclusive agents for writing policies, contracts, binders, or agreements of insurance or reinsurance. Under the claims services agreements, Starr adjusts the claims under policies and arranges for third party treaty and facultative agreements covering such policies. Under the underwriting services agreements, Starr underwrites insurance policies on our behalf and we agree to reinsure such policies to Starr under quota share reinsurance agreements.

The agency agreement also contains a profit-sharing arrangement based on loss ratios, triggered if Starr underwrites a minimum of $20 million of annual program business net premiums written on our behalf. No profit share commission has been payable yet under this arrangement. Transactions generated under Starr agreements were as follows:

(in millions of U.S. dollars)	Year Ended December 31 2020	2019	2018
Consolidated statement of operations			
Gross premiums written	**$ 507**	$ 394	$ 411
Ceded premiums written	**$ 253**	$ 207	$ 188
Commissions paid	**$ 97**	$ 77	$ 84
Commissions received	**$ 59**	$ 46	$ 42
Losses and loss expenses	**$ 170**	$ 185	$ 188
Consolidated balance sheets			
Reinsurance recoverable on losses and loss expenses	**$ 432**	$ 440	
Ceded reinsurance premium payable	**$ 80**	$ 56	

ABR Re

We own 15.6 percent of the common equity of ABR Reinsurance Capital Holdings Ltd. and warrants to acquire 0.5 percent of additional equity. ABR Reinsurance Capital Holdings Ltd., is the parent company of ABR Reinsurance Ltd. (ABR Re), an independent reinsurance company. Through long-term arrangements, Chubb will be the sole source of reinsurance risks ceded to ABR Re, and BlackRock, Inc. will be ABR Re's exclusive investment management service provider. As an investor, Chubb is expected to benefit from underwriting profit generated by ABR Re's reinsuring a wide range of Chubb's primary insurance business and the income and capital appreciation BlackRock, Inc. seeks to deliver through its investment management services. In addition, Chubb has entered into an arrangement with BlackRock, Inc. under which both Chubb and BlackRock, Inc. will be entitled to an equal share of the aggregate amount of certain fees, including underwriting and investment management performance related fees, in connection with their respective reinsurance and investment management arrangements with ABR Re.

ABR Re is a variable interest entity; however, Chubb is not the primary beneficiary and does not consolidate ABR Re because Chubb does not have the power to control and direct ABR Re's most significant activities, including investing and underwriting. Our minority ownership interest is accounted for under the equity method of accounting. Chubb cedes premiums to ABR Re and recognizes the associated commissions.

Transactions generated under ABR Re agreements were as follows:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Consolidated statement of operations			
Ceded premiums written	**$ 350**	$ 321	$ 329
Commissions received	**$ 100**	$ 92	$ 96
Consolidated balance sheets			
Reinsurance recoverable on losses and loss expenses	**$ 806**	$ 674	
Ceded reinsurance premium payable	**$ 67**	$ 62	

18. Statutory financial information

Our subsidiaries file financial statements prepared in accordance with statutory accounting practices prescribed or permitted by insurance regulators. Statutory accounting differs from GAAP in the reporting of certain reinsurance contracts, investments, subsidiaries, acquisition expenses, fixed assets, deferred income taxes, and certain other items. Some jurisdictions impose complex regulatory requirements on insurance companies while other jurisdictions impose fewer requirements. In some jurisdictions, we must obtain licenses issued by governmental authorities to conduct local insurance business. These licenses may be subject to reserves and minimum capital and solvency tests. Jurisdictions may impose fines, censure, and/or criminal sanctions for violation of regulatory requirements. The 2020 amounts below are based on estimates.

Chubb's insurance and reinsurance subsidiaries are subject to insurance laws and regulations in the jurisdictions in which they operate. These regulations include restrictions that limit the amount of dividends or other distributions, such as loans or cash advances, available to shareholders without prior approval of the local insurance regulatory authorities. The amount of dividends available to be paid in 2021 without prior approval totals $6.4 billion.

The statutory capital and surplus of our insurance subsidiaries met regulatory requirements for 2020, 2019, and 2018. The minimum amounts of statutory capital and surplus necessary to satisfy regulatory requirements was $29.4 billion and $26.7 billion for December 31, 2020 and 2019, respectively. These minimum regulatory capital requirements were significantly lower than the corresponding amounts required by the rating agencies which review Chubb's insurance and reinsurance subsidiaries.

The following tables present the combined statutory capital and surplus and statutory net income (loss) of our Property and casualty and Life subsidiaries:

(in millions of U.S. dollars)	December 31 2020	2019
Statutory capital and surplus		
Property and casualty	**$ 45,964**	$ 43,077
Life	**$ 1,641**	$ 1,573

(in millions of U.S. dollars)	Year Ended December 31 2020	2019	2018
Statutory net income (loss)			
Property and casualty	**$ 4,294**	$ 6,046	$ 7,521
Life	**$ (247)**	$ (210)	$ (102)

Several insurance subsidiaries follow accounting practices prescribed or permitted by the jurisdiction of domicile that differ from the applicable local statutory practice. The application of prescribed or permitted accounting practices does not have a material impact on Chubb's statutory surplus and income. As prescribed by the Restructuring discussed previously in Note 7, certain of our U.S. subsidiaries discount certain A&E liabilities, which increased statutory capital and surplus by approximately $140 million and $147 million at December 31, 2020 and 2019, respectively.

Federal Insurance Company (Federal), a direct subsidiary of Chubb INA Holdings Inc., has a permitted practice granted by the Indiana Department of Insurance that relates to its investments in foreign subsidiaries and affiliates. Under Statement of Statutory Accounting Principles No. 97, Investments in Subsidiary, Controlled and Affiliated Entities, in order for a reporting entity to admit its investments in foreign subsidiaries and affiliates, audited financial statements of the subsidiary or affiliate must be obtained to support the carrying value. Such financial statements must be prepared in accordance with U.S. GAAP, or alternatively, in accordance with the local statutory requirements in the subsidiary's or affiliate's country of domicile, with an audited footnote reconciliation of net income and shareholder's equity as reported to a U.S. GAAP basis. With the explicit permission of the Indiana Department of Insurance, Federal obtains audited financial statements for its admitted foreign subsidiaries and affiliates, which had an aggregate carrying value of approximately $55 million and $54 million at December 31, 2020 and 2019, respectively, prepared in accordance with their respective local statutory requirements and supplemented with a separate unaudited reconciliation of shareholder's equity as reported to a U.S. GAAP basis.

19. Information provided in connection with outstanding debt of subsidiaries

The following tables present condensed consolidating financial information at December 31, 2020 and 2019, and for the years ended December 31, 2020, 2019, and 2018 for Chubb Limited (Parent Guarantor) and Chubb INA Holdings Inc. (Subsidiary Issuer). The Subsidiary Issuer is an indirect 100 percent-owned subsidiary of the Parent Guarantor. The Parent Guarantor fully and unconditionally guarantees certain of the debt of the Subsidiary Issuer. Condensed consolidating financial information of the Parent Guarantor and Subsidiary Issuer are presented on the equity method of accounting. The revenues and expenses and cash flows of the subsidiaries of the Subsidiary Issuer are presented in the Other Chubb Limited Subsidiaries column on a combined basis.

Condensed Consolidating Balance Sheet at December 31, 2020

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Assets					
Investments	$ —	$ 197	$ 118,472	$ —	$ 118,669
Cash [1]	84	1	1,934	(272)	1,747
Restricted Cash	—	—	89	—	89
Insurance and reinsurance balances receivable	—	—	13,926	(3,446)	10,480
Reinsurance recoverable on losses and loss expenses	—	—	25,217	(9,625)	15,592
Reinsurance recoverable on policy benefits	—	—	299	(93)	206
Value of business acquired	—	—	263	—	263
Goodwill and other intangible assets	—	—	21,211	—	21,211
Investments in subsidiaries	56,148	55,231	—	(111,379)	—
Due from subsidiaries and affiliates, net	3,522	—	171	(3,693)	—
Other assets	10	463	23,921	(1,877)	22,517
Total assets	$ 59,764	$ 55,892	$ 205,503	$ (130,385)	$ 190,774
Liabilities					
Unpaid losses and loss expenses	$ —	$ —	$ 77,180	$ (9,369)	$ 67,811
Unearned premiums	—	—	18,853	(1,201)	17,652
Future policy benefits	—	—	5,806	(93)	5,713
Due to subsidiaries and affiliates, net	—	3,008	685	(3,693)	—
Affiliated notional cash pooling programs[1]	—	272	—	(272)	—
Repurchase agreements	—	—	1,405	—	1,405
Long-term debt	—	14,948	—	—	14,948
Trust preferred securities	—	308	—	—	308
Other liabilities	323	1,418	26,133	(4,378)	23,496
Total liabilities	323	19,954	130,062	(19,006)	131,333
Total shareholders' equity	59,441	35,938	75,441	(111,379)	59,441
Total liabilities and shareholders' equity	$ 59,764	$ 55,892	$ 205,503	$ (130,385)	$ 190,774

[1] Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information. At December 31, 2020, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

Condensed Consolidating Balance Sheet at December 31, 2019

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Assets					
Investments	$ —	$ 1,013	$ 108,221	$ —	$ 109,234
Cash [1]	2	442	1,093	—	1,537
Restricted Cash	—	—	109	—	109
Insurance and reinsurance balances receivable	—	—	12,920	(2,563)	10,357
Reinsurance recoverable on losses and loss expenses	—	—	24,780	(9,599)	15,181
Reinsurance recoverable on policy benefits	—	—	292	(95)	197
Value of business acquired	—	—	306	—	306
Goodwill and other intangible assets	—	—	21,359	—	21,359
Investments in subsidiaries	50,853	52,076	—	(102,929)	—
Due from subsidiaries and affiliates, net	4,776	—	—	(4,776)	—
Other assets	12	408	20,072	(1,829)	18,663
Total assets	$ 55,643	$ 53,939	$ 189,152	$ (121,791)	$ 176,943
Liabilities					
Unpaid losses and loss expenses	$ —	$ —	$ 71,916	$ (9,226)	$ 62,690
Unearned premiums	—	—	17,978	(1,207)	16,771
Future policy benefits	—	—	5,468	(95)	5,373
Due to subsidiaries and affiliates, net	—	4,446	330	(4,776)	—
Repurchase agreements	—	—	1,416	—	1,416
Short-term debt	—	1,298	1	—	1,299
Long-term debt	—	13,559	—	—	13,559
Trust preferred securities	—	308	—	—	308
Other liabilities	312	1,649	21,793	(3,558)	20,196
Total liabilities	312	21,260	118,902	(18,862)	121,612
Total shareholders' equity	55,331	32,679	70,250	(102,929)	55,331
Total liabilities and shareholders' equity	$ 55,643	$ 53,939	$ 189,152	$ (121,791)	$ 176,943

1. Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information.

Condensed Consolidating Statements of Operations and Comprehensive Income

For the Year Ended December 31, 2020 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	**$ —**	**$ —**	**$ 33,820**	**$ —**	**$ 33,820**
Net premiums earned	**—**	**—**	**33,117**	**—**	**33,117**
Net investment income	**(1)**	**6**	**3,370**	**—**	**3,375**
Equity in earnings of subsidiaries	**3,457**	**2,052**	**—**	**(5,509)**	**—**
Net realized gains (losses)	**20**	**(397)**	**(121)**	**—**	**(498)**
Losses and loss expenses	**—**	**—**	**21,710**	**—**	**21,710**
Policy benefits	**—**	**—**	**784**	**—**	**784**
Policy acquisition costs and administrative expenses	**94**	**(130)**	**9,562**	**—**	**9,526**
Interest (income) expense	**(136)**	**596**	**56**	**—**	**516**
Other (income) expense	**(39)**	**(24)**	**(931)**	**—**	**(994)**
Amortization of purchased intangibles	**—**	**—**	**290**	**—**	**290**
Income tax expense (benefit)	**24**	**(181)**	**786**	**—**	**629**
Net income	**$ 3,533**	**$ 1,400**	**$ 4,109**	**$ (5,509)**	**$ 3,533**
Comprehensive income	**$ 5,783**	**$ 3,236**	**$ 6,512**	**$ (9,748)**	**$ 5,783**

Condensed Consolidating Statements of Operations and Comprehensive Income

For the Year Ended December 31, 2019 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	$ —	$ —	$ 32,275	$ —	$ 32,275
Net premiums earned	—	—	31,290	—	31,290
Net investment income	1	(15)	3,440	—	3,426
Equity in earnings of subsidiaries	4,307	3,022	—	(7,329)	—
Net realized gains (losses) including OTTI	(17)	(31)	(482)	—	(530)
Losses and loss expenses	—	—	18,730	—	18,730
Policy benefits	—	—	740	—	740
Policy acquisition costs and administrative expenses	92	(26)	9,117	—	9,183
Interest (income) expense	(243)	705	90	—	552
Other (income) expense	(27)	6	(575)	—	(596)
Amortization of purchased intangibles	—	—	305	—	305
Chubb integration expenses	1	2	20	—	23
Income tax expense (benefit)	14	(175)	956	—	795
Net income	$ 4,454	$ 2,464	$ 4,865	$ (7,329)	$ 4,454
Comprehensive income	$ 7,521	$ 4,988	$ 7,922	$ (12,910)	$ 7,521

Condensed Consolidating Statements of Operations and Comprehensive Income (Loss)

For the Year Ended December 31, 2018 (in millions of U.S. dollars)	*Chubb Limited (Parent Guarantor)*	*Chubb INA Holdings Inc. (Subsidiary Issuer)*	*Other Chubb Limited Subsidiaries*	*Consolidating Adjustments and Eliminations*	Chubb Limited Consolidated
Net premiums written	$ —	$ —	$ 30,579	$ —	$ 30,579
Net premiums earned	—	—	30,064	—	30,064
Net investment income	6	13	3,286	—	3,305
Equity in earnings of subsidiaries	3,753	2,578	—	(6,331)	—
Net realized gains (losses) including OTTI	—	117	(769)	—	(652)
Losses and loss expenses	—	—	18,067	—	18,067
Policy benefits	—	—	590	—	590
Policy acquisition costs and administrative expenses	87	(58)	8,769	—	8,798
Interest (income) expense	(299)	806	134	—	641
Other (income) expense	(24)	26	(436)	—	(434)
Amortization of purchased intangibles	—	—	339	—	339
Chubb integration expenses	14	1	44	—	59
Income tax expense (benefit)	19	(148)	824	—	695
Net income	$ 3,962	$ 2,081	$ 4,250	$ (6,331)	$ 3,962
Comprehensive income (loss)	$ 1,242	$ (27)	$ 1,808	$ (1,781)	$ 1,242

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2020 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net cash flows from operating activities	**$ 1,933**	**$ 274**	**$ 10,788**	**$ (3,210)**	**$ 9,785**
Cash flows from investing activities					
Purchases of fixed maturities available for sale	—	(49)	(26,249)	—	(26,298)
Purchases of fixed maturities held to maturity	—	—	(202)	—	(202)
Purchases of equity securities	—	—	(6,419)	—	(6,419)
Sales of fixed maturities available for sale	—	9	11,368	—	11,377
Sales of equity securities	—	—	3,880	—	3,880
Maturities and redemptions of fixed maturities available for sale	—	50	12,400	—	12,450
Maturities and redemptions of fixed maturities held to maturity	—	—	995	—	995
Net change in short-term investments	—	772	(853)	—	(81)
Net derivative instruments settlements	—	55	(168)	—	(113)
Private equity contributions	—	—	(1,924)	—	(1,924)
Private equity distributions	—	—	907	—	907
Payment, including deposit, for Huatai Group interest	—	—	(1,623)	—	(1,623)
Capital contribution	(1,200)	(72)	—	1,272	—
Other	(2)	4	(472)	—	(470)
Net cash flows from (used for) investing activities	(1,202)	769	(8,360)	1,272	(7,521)
Cash flows from financing activities					
Dividends paid on Common Shares	(1,388)	—	—	—	(1,388)
Common Shares repurchased	(523)	—	—	—	(523)
Proceeds from issuance of long-term debt	—	988	—	—	988
Proceeds from issuance of repurchase agreements	—	—	2,354	—	2,354
Repayment of long-term debt	—	(1,301)	—	—	(1,301)
Repayment of repurchase agreements	—	—	(2,354)	—	(2,354)
Proceeds from share-based compensation plans	—	—	145	—	145
Advances (to) from affiliates	1,265	(1,438)	173	—	—
Dividends to parent company	—	—	(3,210)	3,210	—
Capital contribution	—	—	1,272	(1,272)	—
Net proceeds from affiliated notional cash pooling programs[1]	—	272	—	(272)	—
Policyholder contract deposits and other	—	—	470	—	470
Policyholder contract withdrawals and other	—	—	(386)	—	(386)
Other	—	—	(87)	—	(87)
Net cash flows used for financing activities	(646)	(1,479)	(1,623)	1,666	(2,082)
Effect of foreign currency rate changes on cash and restricted cash	(3)	(5)	16	—	8
Net increase (decrease) in cash and restricted cash	82	(441)	821	(272)	190
Cash and restricted cash – beginning of year	2	442	1,202	—	1,646
Cash and restricted cash – end of year	$ 84	$ 1	$ 2,023	$ (272)	$ 1,836

1. Chubb maintains two notional multi-currency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information. At December 31, 2020, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2019 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net cash flows from operating activities	$ 412	$ 2,926	$ 6,878	$ (3,874)	$ 6,342
Cash flows from investing activities					
Purchases of fixed maturities available for sale	—	(21)	(25,825)	—	(25,846)
Purchases of fixed maturities held to maturity	—	—	(229)	—	(229)
Purchases of equity securities	—	—	(531)	—	(531)
Sales of fixed maturities available for sale	—	1	13,115	—	13,116
Sales of equity securities	—	—	611	—	611
Maturities and redemptions of fixed maturities available for sale	—	41	8,998	—	9,039
Maturities and redemptions of fixed maturities held to maturity	—	—	946	—	946
Net change in short-term investments	—	(808)	(309)	—	(1,117)
Net derivative instruments settlements	—	(74)	(629)	—	(703)
Private equity contributions	—	—	(1,315)	—	(1,315)
Private equity distributions	—	—	1,390	—	1,390
Capital contribution	(1,000)	(110)	—	1,110	—
Acquisition of subsidiaries (net of cash acquired of $45)	—	—	(29)	—	(29)
Payment, including deposit, for Huatai Group interest	—	—	(580)	—	(580)
Other	—	(4)	(653)	—	(657)
Net cash flows used for investing activities	(1,000)	(975)	(5,040)	1,110	(5,905)
Cash flows from financing activities					
Dividends paid on Common Shares	(1,354)	—	—	—	(1,354)
Common Shares repurchased	(327)	—	(1,203)	—	(1,530)
Proceeds from issuance of long-term debt	—	2,828	—	—	2,828
Proceeds from issuance of repurchase agreements	—	—	2,817	—	2,817
Repayment of long-term debt	—	(500)	(10)	—	(510)
Repayment of repurchase agreements	—	—	(2,817)	—	(2,817)
Proceeds from share-based compensation plans	—	—	204	—	204
Advances (to) from affiliates	2,301	(3,223)	922	—	—
Dividends to parent company	—	—	(3,874)	3,874	—
Capital contribution	—	—	1,110	(1,110)	—
Net proceeds payments to affiliated notional cash pooling programs[1]	(35)	(617)	—	652	—
Policyholder contract deposits	—	—	514	—	514
Policyholder contract withdrawals	—	—	(303)	—	(303)
Net cash flows from (used for) financing activities	585	(1,512)	(2,640)	3,416	(151)
Effect of foreign currency rate changes on cash and restricted cash	4	1	15	—	20
Net increase (decrease) in cash and restricted cash	1	440	(787)	652	306
Cash and restricted cash – beginning of year	1	2	1,989	(652)	1,340
Cash and restricted cash – end of year	$ 2	$ 442	$ 1,202	$ —	$ 1,646

(1) Chubb maintains two notional multi-currency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information. At December 31, 2018, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2018 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net cash flows from operating activities	$ 256	$ 4,654	$ 5,878	$ (5,308)	$ 5,480
Cash flows from investing activities					
Purchases of fixed maturities available for sale	—	(38)	(24,697)	—	(24,735)
Purchases of fixed maturities held to maturity	—	—	(456)	—	(456)
Purchases of equity securities	—	—	(207)	—	(207)
Sales of fixed maturities available for sale	—	11	14,019	—	14,030
Sales of equity securities	—	—	315	—	315
Maturities and redemptions of fixed maturities available for sale	—	17	7,335	—	7,352
Maturities and redemptions of fixed maturities held to maturity	—	—	1,124	—	1,124
Net change in short-term investments	—	3	513	—	516
Net derivative instruments settlements	—	(7)	23	—	16
Private equity contributions	—	—	(1,337)	—	(1,337)
Private equity distributions	—	—	980	—	980
Capital contribution	(1,475)	(3,550)	—	5,025	—
Other	—	(18)	(515)	—	(533)
Net cash flows used for investing activities	(1,475)	(3,582)	(2,903)	5,025	(2,935)
Cash flows from financing activities					
Dividends paid on Common Shares	(1,337)	—	—	—	(1,337)
Common Shares repurchased	—	—	(1,044)	—	(1,044)
Proceeds from issuance of long-term debt	—	2,171	—	—	2,171
Proceeds from issuance of repurchase agreements	—	—	2,029	—	2,029
Repayment of long-term debt	—	(2,000)	(1)	—	(2,001)
Repayment of repurchase agreements	—	—	(2,019)	—	(2,019)
Proceeds from share-based compensation plans	—	—	115	—	115
Advances (to) from affiliates	2,519	(1,744)	(775)	—	—
Dividends to parent company	—	—	(5,308)	5,308	—
Capital contribution	—	—	5,025	(5,025)	—
Net payments to affiliated notional cash pooling programs[1]	35	502	—	(537)	—
Policyholder contract deposits	—	—	453	—	453
Policyholder contract withdrawals	—	—	(358)	—	(358)
Net cash flows from (used for) financing activities	1,217	(1,071)	(1,883)	(254)	(1,991)
Effect of foreign currency rate changes on cash and restricted cash	—	—	(65)	—	(65)
Net increase (decrease) in cash and restricted cash	(2)	1	1,027	(537)	489
Cash and restricted cash – beginning of year [1]	3	1	962	(115)	851
Cash and restricted cash – end of year [1]	$ 1	$ 2	$ 1,989	$ (652)	$ 1,340

(1) Chubb maintains two notional multi-currency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information. At December 31, 2018 and 2017, the cash balance of one or more entities was negative; however, the overall Pool balances were positive

SCHEDULE I

Chubb Limited and Subsidiaries

SUMMARY OF INVESTMENTS – OTHER THAN INVESTMENTS IN RELATED PARTIES

December 31, 2020 (in millions of U.S. dollars)	Cost or Amortized Cost, Net [1]	Fair Value	Amount at Which Shown in the Balance Sheet
Fixed maturities available for sale			
U.S. Treasury / Agency	$ 2,471	$ 2,670	$ 2,670
Non-U.S.	24,588	26,354	26,354
Corporate and asset-backed securities	34,081	36,331	36,331
Mortgage-backed securities	17,456	18,470	18,470
Municipal	6,572	6,874	6,874
Total fixed maturities available for sale	85,168	90,699	90,699
Fixed maturities held to maturity			
U.S. Treasury / Agency	1,392	1,452	1,392
Non-U.S.	1,288	1,405	1,288
Corporate and asset-backed securities	2,150	2,438	2,150
Mortgage-backed securities	1,999	2,146	1,999
Municipal	4,824	5,069	4,824
Total fixed maturities held to maturity	11,653	12,510	11,653
Equity securities			
Industrial, miscellaneous, and all other	4,027	4,027	4,027
Short-term investments	4,349	4,345	4,345
Other investments [2]	7,826	7,826	7,826
Total investments - other than investments in related parties	$ 113,023	$ 119,407	$ 118,550

[1] Net of valuation allowance for expected credit losses.

[2] Excludes $119 million of related party investments.

SCHEDULE II

Chubb Limited and Subsidiaries

CONDENSED FINANCIAL INFORMATION OF REGISTRANT

BALANCE SHEETS (Parent Company Only)

(in millions of U.S. dollars)	December 31 2020	December 31 2019
Assets		
Investments in subsidiaries and affiliates on equity basis	**$ 56,148**	$ 50,853
Total investments	**56,148**	50,853
Cash	**84**	2
Due from subsidiaries and affiliates, net	**3,522**	4,776
Other assets	**10**	12
Total assets	**$ 59,764**	$ 55,643
Liabilities		
Accounts payable, accrued expenses, and other liabilities	**$ 323**	$ 312
Total liabilities	**323**	312
Shareholders' equity		
Common Shares	**11,064**	11,121
Common Shares in treasury	**(3,644)**	(3,754)
Additional paid-in capital	**9,815**	11,203
Retained earnings	**39,337**	36,142
Accumulated other comprehensive income	**2,869**	619
Total shareholders' equity	**59,441**	55,331
Total liabilities and shareholders' equity	**$ 59,764**	$ 55,643

The condensed financial information should be read in conjunction with the Consolidated Financial Statements and notes thereto.

CONDENSED FINANCIAL INFORMATION OF REGISTRANT

STATEMENTS OF OPERATIONS (Parent Company Only)

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Revenues			
Investment income [1]	**$ 155**	$ 227	$ 305
Equity in net income of subsidiaries and affiliates	**3,457**	4,307	3,753
	3,612	4,534	4,058
Expenses			
Administrative and other (income) expense	**55**	65	63
Chubb integration expenses	**—**	1	14
Income tax expense	**24**	14	19
	79	80	96
Net income	**$ 3,533**	$ 4,454	$ 3,962
Comprehensive income	**$ 5,783**	$ 7,521	$ 1,242

[1] Includes net investment income, interest income, and net realized gains (losses).

The condensed financial information should be read in conjunction with the Consolidated Financial Statements and notes thereto.

STATEMENTS OF CASH FLOWS (Parent Company Only)

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Net cash flows from operating activities [1]	**$ 1,933**	$ 412	$ 256
Cash flows from investing activities			
Capital contribution	**(1,200)**	(1,000)	(1,475)
Other	**(2)**	—	—
Net cash flows used for investing activities	**(1,202)**	(1,000)	(1,475)
Cash flows from financing activities			
Dividends paid on Common Shares	**(1,388)**	(1,354)	(1,337)
Common Shares repurchased	**(523)**	(327)	—
Advances from affiliates	**1,265**	2,301	2,519
Net proceeds from (payments to) affiliated notional cash pooling programs [2]	**—**	(35)	35
Net cash flows from (used for) financing activities	**(646)**	585	1,217
Effect of foreign currency rate changes on cash and restricted cash	**(3)**	4	—
Net increase (decrease) in cash and restricted cash	**82**	1	(2)
Cash and restricted cash – beginning of year	**2**	1	3
Cash and restricted cash – end of year	**$ 84**	$ 2	$ 1

[1] Includes cash dividends received from subsidiaries of $2.0 billion, $200 million, and $75 million in 2020, 2019, and 2018, respectively.

[2] Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information

The condensed financial information should be read in conjunction with the Consolidated Financial Statements and notes thereto

SCHEDULE IV

Chubb Limited and Subsidiaries

SUPPLEMENTAL INFORMATION CONCERNING REINSURANCE

Premiums Earned

For the years ended December 31, 2020, 2019, and 2018 (in millions of U.S. dollars, except for percentages)	Direct Amount	Ceded To Other Companies	Assumed From Other Companies	Net Amount	Percentage of Amount Assumed to Net
2020					
Property and Casualty	**$ 31,546**	**$ 6,782**	**$ 3,044**	**$ 27,808**	**11 %**
Accident and Health	**4,249**	**368**	**111**	**3,992**	**3 %**
Life	**1,242**	**93**	**168**	**1,317**	**13 %**
Total	**$ 37,037**	**$ 7,243**	**$ 3,323**	**$ 33,117**	**10 %**
2019					
Property and Casualty	$ 30,339	$ 7,236	$ 2,797	$ 25,900	11 %
Accident and Health	4,546	376	119	4,289	3 %
Life	991	81	191	1,101	17 %
Total	$ 35,876	$ 7,693	$ 3,107	$ 31,290	10 %
2018					
Property and Casualty	$ 28,793	$ 6,792	$ 2,812	$ 24,813	11 %
Accident and Health	4,409	342	162	4,229	4 %
Life	906	85	201	1,022	20 %
Total	$ 34,108	$ 7,219	$ 3,175	$ 30,064	11 %

SCHEDULE VI

Chubb Limited and Subsidiaries

SUPPLEMENTARY INFORMATION CONCERNING PROPERTY AND CASUALTY OPERATIONS

As of and for the years ended December 31, 2020, 2019, and 2018 (in millions of U.S. dollars)

	Deferred Policy Acquisition Costs	Net Reserves for Unpaid Losses and Loss Expenses	Unearned Premiums	Net Premiums Earned	Net Investment Income	Net Losses and Loss Expenses Incurred Related to		Amortization of Deferred Policy Acquisition Costs	Net Paid Losses and Loss Expenses	Net Premiums Written
						Current Year	Prior Year			
2020	**$ 4,244**	**$ 53,164**	**$ 17,652**	**$ 31,800**	**$ 3,074**	**$ 22,124**	**$ (414)**	**$ 6,076**	**$ 17,434**	**$ 32,471**
2019	$ 4,161	$ 48,509	$ 16,771	$ 30,189	$ 3,141	$ 19,575	$ (845)	$ 5,831	$ 18,473	$ 31,126
2018	$ 3,926	$ 48,271	$ 15,532	$ 29,042	$ 3,047	$ 19,048	$ (981)	$ 5,630	$ 18,340	$ 29,505

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (US GAAP) CONSOLIDATED FINANCIAL STATEMENTS

Report of the statutory auditor on the consolidated financial statements
As statutory auditor, we have audited the accompanying consolidated financial statements of Chubb Limited and its subsidiaries (the Company), which comprise the consolidated balance sheet as of December 31, 2020, and the consolidated statement of operations and comprehensive income, consolidated statement of shareholders' equity, and consolidated statement of cash flows for the year then ended, and the related notes to the consolidated financial statements (pages F-7 to F-103).

Board of Directors' responsibility
The Board of Directors is responsible for the preparation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (US GAAP) and the requirements of Swiss law. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020, and the results of its operations and its cash flows for the year then ended in accordance with US GAAP and comply with Swiss law.

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority
Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of Unpaid Losses and Loss Expenses, Net of Reinsurance

Key audit matter	**How our audit addressed the key audit matter**
As described in Note 7 to the consolidated financial statements, as of December 31, 2020, the Company's liability for unpaid losses and loss expenses, net of reinsurance, was approximately $53 billion. The majority of the Company's net unpaid losses and loss expenses arise from the Company's long-tail casualty business (such as general liability and professional liability), U.S. sourced workers' compensation, asbestos-related, environmental pollution and other exposures with high estimation uncertainty. The process of establishing loss reserves requires the use of estimates and judgments based on circumstances underlying the insured loss at the date of accrual. The judgments involved in projecting the ultimate losses include the use and interpretation of various standard actuarial reserving methods that place reliance on the extrapolation of actual historical data, loss development patterns, industry data, and other benchmarks as appropriate. The reserves for the various product lines each require different qualitative and quantitative assumptions and judgments, including changes in business mix or volume, changes in ceded reinsurance structures, changes in claims handling practices, reported and projected loss trends, inflation, the legal environment, and the terms and conditions of the contracts sold to the Company's insured parties. The principal considerations for our determination that performing procedures relating to the valuation of unpaid losses and loss expenses, net of reinsurance, from the long-tail and other exposures as described above, is a key audit matter are (i) the significant judgment by management in determining the reserve liability, which in turn led to a high degree of auditor subjectivity and judgment in performing procedures relating to the valuation; (ii) the significant audit effort and judgment in evaluating the audit evidence relating to the actuarial reserving methods and assumptions related to extrapolation of actual historical data, loss development patterns, industry data, other benchmarks, and the impact of qualitative and quantitative subjective factors; and (iii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.	Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the Company's valuation of unpaid losses and loss expenses, net of reinsurance, including controls over the selection of actuarial methodologies and development of significant assumptions. These procedures also included, among others, the involvement of professionals with specialized skill and knowledge to assist in performing one or a combination of procedures, including (i) independently estimating reserves on a sample basis using actual historical data and loss development patterns, as well as industry data and other benchmarks, to develop an independent estimate and comparing the independent estimate to management's actuarially determined reserves; and (ii) evaluating management's actuarial reserving methodologies and aforementioned assumptions, as well as assessing qualitative adjustments to carried reserves and the consistency of management's approach period-over-period. Performing these procedures involved testing the completeness and accuracy of data provided by management.

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (US GAAP) CONSOLIDATED FINANCIAL STATEMENTS (continued)

Valuation of Level 3 Investments in the Valuation Hierarchy

Key audit matter	How our audit addressed the key audit matter
As described in Note 4 to the consolidated financial statements, as of December 31, 2020, the Company had total assets measured at fair value of approximately $106 billion, of which $2 billion were categorized as level 3 in the valuation hierarchy. The level 3 investments are measured at fair value using inputs that are unobservable and reflect management's judgments about assumptions that market participants would use in pricing or, for certain of the investments, management obtains and evaluates a single broker quote, which is typically from a market maker. As described by management, the valuation is more subjective when markets are less liquid due to the lack of market based inputs (i.e., stale pricing), which may increase the potential that an investment's estimated fair value is not reflective of the price at which an actual transaction would occur. The principal considerations for our determination that performing procedures relating to the valuation of level 3 investments in the valuation hierarchy is a key audit matter are (i) the significant judgment by management in determining the fair value of these investments as they are measured using inputs that are unobservable and are likely to be priced using models or inputs other than quoted prices, which in turn led to a high degree of auditor subjectivity and judgment in performing procedures relating to the estimate; and (ii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.	Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of the controls relating to the valuation of level 3 investments. These procedures also included, among others, obtaining pricing from sources other than those used by management for a sample of securities and comparing management's estimate to the prices independently obtained, and the involvement of professionals with specialized skill and knowledge to assist in developing an independent range of prices for a sample of securities and comparing management's estimate to the independently developed ranges.

Report on other legal requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG

/s/ Peter Eberli
Peter Eberli
Audit expert
Auditor in charge

/s/ Nicolas Juillerat
Nicolas Juillerat
Audit expert

Zurich, February 25, 2021

CHUBB LIMITED

SWISS STATUTORY FINANCIAL STATEMENTS

December 31, 2020

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SWISS STATUTORY BALANCE SHEETS (Unconsolidated)
Chubb Limited

(in millions of Swiss francs)	December 31 2020	December 31 2019
Assets		
Cash and cash equivalents	**75**	25
Prepaid expenses and other assets	**2**	6
Receivable from subsidiaries	**234**	74
Total current assets	**311**	105
Investments in subsidiaries	**33,242**	31,391
Loans to subsidiaries	**2,934**	4,485
Other assets	**8**	7
Total non-current assets	**36,184**	35,883
Total assets	**36,495**	35,988
Liabilities		
Accounts payable	**28**	69
Payable to subsidiaries	**498**	567
Capital distribution payable	**316**	334
Deferred unrealized exchange gain	**2**	—
Total short-term liabilities	**844**	970
Total liabilities	**844**	970
Shareholders' equity		
Share capital	**11,534**	11,587
Statutory capital reserves:		
Capital contribution reserves	**9,458**	10,841
Reserve for dividends from capital contributions	**1,171**	1,092
Reserves for treasury shares	**3,046**	3,346
Treasury shares	**(486)**	(334)
Statutory retained earnings:		
Retained earnings	**8,507**	8,151
Profit for the period	**2,421**	335
Total shareholders' equity	**35,651**	35,018
Total liabilities and shareholders' equity	**36,495**	35,988

The accompanying notes form an integral part of these statutory financial statements

SWISS STATUTORY STATEMENTS OF INCOME (Unconsolidated)

Chubb Limited

For the years ended December 31, 2020 and 2019

(in millions of Swiss francs)	**2020**	2019
Dividend income	**2,497**	199
Interest income from subsidiaries	**128**	249
Debt guarantee fee income	**39**	36
Interest expense to subsidiaries	**—**	(7)
Administrative and other expenses	**(88)**	(102)
Foreign exchange gains/(losses)	**15**	(17)
Operating results	**2,591**	358
Interest (expense) income third party only	**(1)**	1
Foreign exchange translation losses	**(144)**	(10)
Earnings before taxes	**2,446**	349
Tax expense	**(25)**	(14)
Profit for the year	**2,421**	335

The accompanying notes form an integral part of these statutory financial statements

1. Basis of presentation

Chubb Limited (Chubb), domiciled in Zurich, Switzerland, is the holding company of Chubb Group (Group) with a listing on the New York Stock Exchange (NYSE). Chubb's principal activity is the holding of subsidiaries. Revenues consist mainly of dividend and interest income. The accompanying financial statements comply with Swiss Law. The financial statements present the financial position of the holding company on a standalone basis and do not represent the consolidated financial position of the holding company and its subsidiaries.

The financial statements have been prepared in accordance with the provisions of commercial accounting as set out in the Swiss Code of Obligations (Art. 957 to 963b CO, effective since January 1, 2013).

All amounts in the notes are shown in millions of Swiss francs unless otherwise stated.

2. Significant accounting policies

a) Cash and cash equivalents

Cash and cash equivalents includes cash on hand and deposits with an original maturity of three months or less at time of purchase.

Chubb and certain of its subsidiaries (participating entities) have agreements with a third-party bank provider which implemented two international multi-currency notional cash pooling programs. In each program, participating entities establish deposit accounts in different currencies with the bank provider and each day the credit or debit balances in every account are notionally translated into a single currency (U.S. dollars) and then notionally pooled. Participants of the notional pool either pay or receive interest from the third-party bank provider. The bank extends overdraft credit to any participating entity as needed, provided that the overall notionally-pooled balance of all accounts in each pool at the end of each day is at least zero. Actual cash balances are not physically converted and are not commingled between legal entities. Any overdraft balances incurred under this program by a participating entity would be guaranteed by Chubb up to CHF 266 million ($300 million) in the aggregate. Our syndicated letter of credit facility allows for same day drawings to fund a net pool overdraft should participating entities withdraw contributed funds from the pool.

b) Investments in subsidiaries

Investments in subsidiaries are equity interests, which are held on a long-term basis for the purpose of the holding company's business activities. They are carried at a value no higher than their cost less adjustments for impairment. An impairment analysis of the investments in subsidiaries is performed on an annual basis.

c) Translation of foreign currencies

The financial statements are translated from U.S. dollar into Swiss francs using the following exchange rates:

- Investments in subsidiaries at historical exchange rates;
- Other assets and liabilities at period end exchange rates;
- Treasury shares and shareholders' equity at historical exchange rates; and
- Revenues and expenses at average exchange rates (where approximatively accurate), otherwise at transaction date exchange rates

Exchange losses are recorded in the statement of income and unrealized exchange gains are recorded on the balance sheet and deferred until realized.

d) Dividend income

Chubb collects dividend income from its direct subsidiaries.

e) Interest income (expense) from subsidiaries

Chubb collects interest income from loans issued to its subsidiaries which are reflected within operating income. Additionally, Chubb either collects or pays interest related to a reciprocal line of credit with one of its subsidiaries.

f) Debt guarantee fee income

Chubb collects a fee for Chubb's guarantee of the debt issued by one of its subsidiaries.

3. Commitments, contingencies, and guarantees

a) Letters of credit (LOC)

Chubb has access to capital markets and credit facilities with a letter of credit capacity of CHF 3.5 billion ($4.0 billion) with a sub-limit of CHF $1.7 billion ($1.9 billion) for revolving credit. Chubb's existing credit facilities have remaining terms expiring through October 2022. Chubb's LOC usage was CHF 1.5 billion ($1.7 billion) and CHF 548 million ($567 million) for the years ended December 31, 2020 and 2019, respectively. The letter of credit facility required that Chubb maintains certain financial covenants, all of which were met at December 31, 2020.

b) Lease commitments

Chubb leases property under an operating lease which expires in 2023. The following table presents future annual minimum lease payments as of December 31, 2020.

Year ending December 31 (in millions of Swiss francs)	
2021	1.5
2022	1.5
2023	1.1
Thereafter	—
Total minimum future lease commitments	4.1

At December 31, 2019, the total minimum future lease commitments were CHF 5.6 million.

c) Guarantee of debt

Chubb fully and unconditionally guarantees certain subsidiary debt totaling CHF 13.5 billion ($15.3 billion) and CHF 14.7 billion ($15.2 billion) at December 31, 2020 and 2019, respectively, and receives a fee.

4. Significant investments

a) Share capital:

The following table presents information regarding share capital held of subsidiaries at both December 31, 2020 and 2019. Amounts are expressed in whole U.S. dollars or Swiss francs.

Holdings as of December 31, 2020 and 2019	Country	% of Possession	Currency	Share Capital	Purpose
Chubb Group Holdings, Inc.	U.S.A.	100 %	USD	11	Holding company
Chubb INA Holdings, Inc.	U.S.A.	20 %	USD	1	Holding company
Chubb Insurance (Switzerland) Limited	Switzerland	100 %	CHF	100,000,000	Insurance company
Chubb Reinsurance (Switzerland) Limited	Switzerland	100 %	CHF	44,000,000	Reinsurance company
Chubb Group Management and Holdings Ltd.	Bermuda	100 %	USD	100	Holding company

b) Investments in subsidiaries:

The following table presents information regarding investments in subsidiaries at both December 31, 2020 and 2019. Investments in subsidiaries increased CHF 1.9 billion ($1.9 billion) in 2020 due to capital contributions primarily to fund investments and other subsidiary holding company obligations.

(in millions of Swiss francs)	2020	2019
Chubb Group Holdings, Inc.	**17,004**	17,004
Chubb INA Holdings, Inc.	**2,043**	2,043
Chubb Group Management Holdings Ltd.	**13,768**	11,916
Chubb Insurance (Switzerland) Limited	**185**	185
Chubb Reinsurance (Switzerland) Limited	**242**	242
Balance - end of year	**33,242**	31,391

5. Common Share ownership of the Board of Directors and Group Executives

a) Board of Directors

The following table presents information, at December 31, 2020 and 2019, with respect to the ownership of Common Shares by each member of the Board of Directors. Unless otherwise indicated, the named individual has sole voting and investment power over the Common Shares listed in the Common Shares Beneficially Owned column. Common Share ownership of Evan G. Greenberg, the Chairman of the Board, is included in Note 5 b) below.

Name of Beneficial Owner	Year	Common Shares Beneficially Owned	Restricted Stock Units [1]	Restricted Common Stock [2]
Michael G. Atieh [3]	**2020**	**3,501**	**36,115**	**1,721**
	2019	1,727	35,269	1,236
Sheila P. Burke	**2020**	**3,954**	**39,598**	**1,721**
	2019	3,027	39,346	1,236
James Cash	**2020**	**3,756**	**19,465**	**1,721**
	2019	2,829	19,385	1,236
Mary A. Cirillo	**2020**	**23,740**	**15,038**	**3,107**
	2019	22,067	14,685	2,231
Michael P. Connors	**2020**	**12,989**	—	**1,721**
	2019	12,062	—	1,236
John A. Edwardson	**2020**	**10,014**	—	**2,916**
	2019	8,444	—	2,094
Robert M. Hernandez	**2020**	—	—	—
	2019	63,292	25,771	1,236
Robert J. Hugin [4]	**2020**	**10,335**	—	**2,916**
	2019	—	—	—
Kimberly A. Ross	**2020**	—	—	—
	2019	7,807	—	1,236
Robert W. Scully [5]	**2020**	**40,364**	—	**3,251**
	2019	28,864	—	2,334
Eugene B. Shanks, Jr.	**2020**	**10,079**	—	**1,721**
	2019	9,152	—	1,236
Theodore E. Shasta	**2020**	**14,017**	—	**1,721**
	2019	11,139	—	1,236
David H. Sidwell	**2020**	**9,860**	—	**1,721**
	2019	8,933	—	1,236
Olivier Steimer	**2020**	**17,649**	**3,643**	**1,721**
	2019	16,498	3,558	1,236
Frances F. Townsend	**2020**	—	—	**1,721**
	2019	—	—	—
Total	**2020**	**160,258**	**113,859**	**27,679**
	2019	195,841	138,014	19,019

[1] Represents Common Shares that will be issued to the director upon his or her separation from the Board. These Common Shares relate to stock units granted as director's compensation prior to 2008 and associated dividend reinvestment accruals.

For Ms. Burke and Mr. Cash includes deferred stock units and market value units granted prior to the merger that will settle following separation from service. The market value units include dividend reinvestment accruals.

[2] Represents Common Shares with respect to which the individual has the power to vote (but not to dispose of).

[3] Common Shares beneficially owned includes 847 shares held by a family foundation. Mr. Atieh has no pecuniary interest in these shares.

[4] Includes 335 shares held by Mr. Hugin's sons, of which Mr. Hugin disclaims beneficial ownership.

[5] Includes 2,775 shares held by Mr. Scully's daughter, of which Mr. Scully disclaims beneficial ownership.

b) Group Executives

The following table presents information, at December 31, 2020 and 2019, with respect to the beneficial ownership of Common Shares by each of the following Group Executives. Unless otherwise indicated, the named individual has sole voting and investment power over the Common Shares listed in the Common Shares Beneficially Owned column.

Name of Beneficial Owner	Year	Common Shares Beneficially Owned	Common Shares Subject to Options [1]	Weighted Average Option Exercise Price in CHF	Option Exercise Years	Restricted Common Stock [2]
Evan G. Greenberg [3] [4]	**2020**	**761,463**	**819,566**	**103.26**	**4.37**	**148,653**
	2019	675,056	865,583	98.83	4.33	193,616
Philip V. Bancroft [5]	**2020**	**197,471**	**111,264**	**115.11**	**5.48**	**24,930**
	2019	172,465	96,832	117.18	5.89	33,791
John W. Keogh [6]	**2020**	**166,136**	**221,635**	**112.15**	**5.21**	**67,309**
	2019	118,958	213,551	110.38	5.32	86,865
Joseph Wayland	**2020**	**37,263**	**72,018**	**119.31**	**5.90**	**24,148**
	2019	23,232	59,350	123.14	6.41	30,519
Total	**2020**	**1,162,333**	**1,224,483**			**265,040**
	2019	989,711	1,235,316			344,791

[1] Represents Common Shares that the individual has the right to acquire within 60 days of December 31, 2020 and 2019, through option exercises, both vested and unvested.

[2] Represents Common Shares with respect to which the individual has the power to vote (but not to dispose of).

[3] Mr. Greenberg shares with other persons the power to vote and/or dispose of 72,085 and 97,528 of the Common Shares listed at December 31, 2020 and 2019, respectively.

[4] Mr. Greenberg pledged 240,000 Common Shares Beneficially Owned in connection with a margin account at December 31, 2020 and 2019.

[5] Mr. Bancroft pledged 41,000 Common Shares Beneficially Owned in connection with a margin account at December 31, 2020 and 2019.

[6] Mr. Keogh shares with other persons the power to vote and/or dispose of 7,978 of the Common Shares listed at December 31, 2020 and 2019.

6. Shareholders' equity

The following table presents issued, authorized, and conditional share capital, at December 31, 2020 and 2019. Treasury shares held by Chubb which are issued, but not outstanding totaled 3,606,053 and 2,200,503 shares for the periods ending December 31, 2020 and 2019, respectively. In addition to the treasury shares held by Chubb, subsidiaries of Chubb held 23,266,586 treasury shares at a cost of CHF 3.0 billion ($3.1 billion) and 25,611,794 treasury shares at a cost of CHF 3.3 billion ($3.4 billion), for the periods ending December 31, 2020 and 2019, respectively.

	Year ended December 31	
	2020	2019
Shares Issued	**477,605,264**	479,783,864
Authorized share capital for general purposes	**200,000,000**	200,000,000
Conditional share capital for bonds and similar debt instruments	**33,000,000**	33,000,000
Conditional share capital for employee benefit plans	**25,410,929**	25,410,929

a) Shares authorized and issued

All Common Shares are authorized under Swiss Corporate law. Chubb's share capital consisted of 477,605,264 and 479,783,864 Common Shares, with a par value of CHF 24.15 per share for the period ending December 31, 2020 and 2019, respectively. The Board has shareholder-approved authority as set forth in the Articles of Association to increase for general purposes Chubb's share capital from time to time until May 20, 2022, by the issuance of up to 200,000,000 fully paid up Common Shares with a par value equal to the par value of Chubb's Common Shares as set forth in the Articles of Association at the time of any such issuance.

b) Conditional share capital

(i) Conditional share capital for bonds and similar debt instruments

At both December 31, 2020 and 2019, the share capital of Chubb was authorized to be increased through the issuance of a maximum of 33,000,000 fully paid up shares each with a par value of CHF 24.15 per share through the exercise of conversion and/or option or warrant rights granted in connection with bonds, notes, or similar instruments, issued or to be issued by Chubb, including convertible debt instruments.

(ii) Conditional share capital for employee benefit plans

At both December 31, 2020 and 2019, the share capital of Chubb was authorized to be increased through the issuance of a maximum of 25,410,929 fully paid up shares each with a par value of CHF 24.15 per share in connection with the exercise of option rights granted to any employee of Chubb or a subsidiary, and any consultant, director, or other person providing services to Chubb or a subsidiary.

c) Capital contribution reserves

At our May 2019 annual general meetings, our shareholders approved an annual dividend for the following year of up to $3.00 per share, expected to be paid in four quarterly installments of $0.75 per share at dates determined by the Board of Directors (Board) after the annual general meeting by way of a distribution from capital contribution reserves, transferred to free reserves for payment.

At our May 2020 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.12 per share, expected to be paid in four quarterly installments of $0.78 per share after the annual general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment. The Board will determine the record and payment dates at which the annual dividend may be paid until the date of the 2021 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion. The first three quarterly installments each of $0.78 per share have been distributed by the Board as expected.

The following table presents dividend distributions per Common Share in Swiss francs (CHF) and U.S. dollars (USD) for the years ended December 31, 2020 and 2019:

	2020		2019	
	CHF	**USD**	CHF	USD
Dividends - distributed from Capital contribution reserves	**2.89**	**$ 3.09**	2.94	$ 2.98
Total dividend distributions per common share	**2.89**	**$ 3.09**	2.94	$ 2.98

d) Treasury Shares - Reserve for Treasury Shares

Treasury shares held by Chubb are carried at cost. At our May 2020 annual general meeting, our shareholders approved the cancellation of 2,178,600 shares purchased under our share repurchase program during the period beginning September 23, 2019 and ending December 31, 2019. The capital reduction by cancellation of shares was subject to publication requirements and a two-month waiting period in accordance with Swiss law and became effective August 3, 2020. The following table presents a roll-forward of treasury shares held by Chubb for the years ended December 31, 2020 and 2019:

	2020		2019	
(cost in millions of Swiss francs)	**Number of Shares**	**Cost**	Number of Shares	Cost
Balance – beginning of year	**2,200,503**	**334**	21,902	2
Repurchase of shares	**3,584,150**	**484**	2,178,601	332
Cancellation of shares	**(2,178,600)**	**(332)**	—	—
Balance – end of year	**3,606,053**	**486**	2,200,503	334

Treasury shares held by Chubb subsidiaries are carried cost. The following table presents a roll-forward of treasury shares held by Chubb subsidiaries for the years ended December 31, 2020 and 2019:

	2020		2019	
(cost in millions of Swiss francs)	**Number of Shares**	**Cost**	Number of Shares	Cost
Balance – beginning of year	**25,611,794**	**3,346**	20,558,584	2,538
Purchase of shares	**—**	**—**	8,263,637	1,189
Additions related to share-based compensation plans	**814,043**	**104**	744,405	101
Redeemed under share-based compensation plans	**(3,159,251)**	**(405)**	(3,954,832)	(482)
Balance – end of year	**23,266,586**	**3,046**	25,611,794	3,346

Decreases in treasury shares held by Chubb and its subsidiaries are principally due to issuances of shares upon the exercise of employee stock options, grants of restricted stock, and purchases under the Employee Stock Purchase Plan (ESPP). Increases in treasury shares are due to open market repurchases of shares and the surrender of shares to satisfy tax withholding obligations in connection with the vesting of restricted stock and the forfeiture of unvested restricted stock.

e) Movements in Statutory Retained earnings

	Year ended December 31	
(in millions of Swiss francs)	**2020**	2019
Balance – beginning of year	**8,486**	8,959
Attribution to / release reserve for treasury shares	**301**	(808)
Cancellation of treasury shares	**(280)**	—
Profit for the year	**2,421**	335
Balance – end of year	**10,928**	8,486

f) Chubb securities repurchase authorization

From time to time, Chubb repurchases shares as part of our capital management program and to partially offset potential dilution from the exercise of stock options and the granting of restricted stock under share-based compensation plans. Our Board of Directors has authorized share repurchase programs as follows:

- $1.5 billion of Chubb Common Shares from December 1, 2018 through December 31, 2019
- $1.5 billion of Chubb Common Shares from November 21, 2019 through December 31, 2020
- $1.5 billion of Chubb Common Shares from November 19, 2020 through December 31, 2021

Subsequently, 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.

Share repurchases may be in the open market, in privately negotiated transactions, block trades, accelerated repurchases and/or through option or other forward transactions.

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

	Year ended December 31	
(in millions of Swiss francs)	**2020**	2019
Number of shares repurchased	**3,584,150**	10,442,238
Cost of shares repurchased	**484**	1,521

g) General restrictions
Holders of Common Shares are entitled to receive dividends as proposed by the Board and approved by the shareholders. Holders of Common Shares are allowed one vote per share provided that, if the controlled shares of any shareholder constitute ten percent or more of the outstanding Common Shares of Chubb, only a fraction of the vote will be allowed so as not to exceed ten percent. Entry of acquirers of Common Shares as shareholders with voting rights in the share register may be refused if it would confer voting rights with respect to ten percent or more of the registered share capital recorded in the commercial register.

7. Significant shareholders

The following table presents information regarding each person, including corporate groups, known to Chubb to own beneficially or of record more than five percent of Chubb's outstanding Common Shares at December 31, 2020 and December 31, 2019.

	2020		2019	
Name of Beneficial Owner	**Number of Shares Beneficially Owned**	**Percent of Class**	Number of Shares Beneficially Owned	Percent of Class
Vanguard Group, Inc.	**35,934,796**	**7.97 %**	37,653,064	8.30 %
BlackRock, Inc.	**29,455,172**	**6.53 %**	32,602,335	7.20 %
Wellington Management Group, LLP	**27,670,712**	**6.14 %**	27,825,114	6.14 %
T. Rowe Price Associates, Inc.	**23,852,906**	**5.29 %**	23,375,803	5.10 %
Capital International Investors	**23,360,900**	**5.18 %**	*	*

* Represented less than five percent

8. Other disclosures required by Swiss law

a) Expenses
Total personnel expenses amounted to CHF 9.7 million and CHF 10.1 million for the years ended December 31, 2020 and 2019, respectively. The number of full-time positions on an annual average was no more than 50 for years ended December 31, 2020 and 2019.

Total amortization expense related to tangible property amounted to CHF 0.1 million and less than CHF 0.1 million for the years ended December 31, 2020 and 2019, respectively.

b) Fees paid to auditors
Fees paid to auditors by Chubb Limited totaled CHF 3.7 million and CHF 4.5 million for the years ended December 31, 2020 and 2019, respectively. An allocation of audit fees for professional services rendered in connection with the integrated audit of our consolidated financial statements and internal controls over financial reporting and audit fees for the standalone Swiss statutory financial statements totaled CHF 3.5 million and CHF 4.1 million for the years ended December 31, 2020 and 2019, respectively. Tax fees totaled CHF 0.2 million and CHF 0.3 million for the years ended December 31, 2020 and 2019, respectively.

c) Loans to subsidiaries

The following table presents information regarding loans to subsidiaries at December 31, 2020 and 2019. Loans to Chubb Group Holdings decreased CHF 1.7 billion primarily due to principal repayments in 2020.

(in millions of Swiss francs)	**2020**	2019
Loans to Chubb Group Holdings, Inc.	**2,522**	4,203
Loans to INA Holdings, Inc.	**137**	—
Loans to Chubb INA International Holdings Ltd., Agencia en Chile	**275**	282
Total loans to subsidiaries	**2,934**	4,485

d) Receivables from subsidiaries

The following table presents information regarding receivables from subsidiaries at December 31, 2020 and 2019.

(in millions of Swiss francs)	**2020**	2019
Receivables from Chubb Group Holdings, Inc.	**53**	73
Receivables from Chubb Group Management and Holdings, Ltd.	**181**	1
Total receivables from subsidiaries	**234**	74

e) Payable to subsidiaries

The following table presents information regarding payables to subsidiaries at December 31, 2020 and 2019, respectively.

(in millions of Swiss francs)	**2020**	2019
Payable to Chubb Group Holdings, Inc.	**391**	393
Payable to INA Holdings, Inc.	**—**	78
Payable to Chubb Group Management and Holdings, Ltd.	**105**	96
Payable to Chubb Insurance (Switzerland) Ltd.	**2**	—
Total payable to subsidiaries	**498**	567

PROPOSED APPROPRIATION OF AVAILABLE EARNINGS

Chubb Limited

Proposed appropriation of available earnings

Our Board of Directors proposes to the Annual General Meeting that the Company's disposable profit (including the net income and the other items as shown below) be carried forward. The following table shows the appropriation of available earnings as proposed by the Board of Directors for the year ended December 31, 2020.

(in millions of Swiss francs)	**2020**	2019
Balance brought forward	**8,486**	8,959
Profit for the year	**2,421**	335
Cancellation of treasury shares	**(280)**	—
Attribution to reserve for treasury shares	**301**	(808)
Balance carried forward	**10,928**	8,486

In order to pay dividends, our Board of Directors proposes that an aggregate amount equal to CHF 2.2 billion be released from the capital contribution reserves account in 2021 and allocated to a segregated reserve for dividends account (the "Dividend Reserve"). The Board proposes to distribute a dividend to the shareholders up to an aggregate amount totaling $3.20 per Common Share from, and limited at a maximum to the amount of, the Dividend Reserve in one or more installments, in such amounts and on such record and payment dates as determined by the Board in its discretion. If the Board deems it advisable for the Company, the Board shall be authorized to abstain (in whole or in part) from distributing a dividend in its discretion. The authorization of the Board to distribute the installments from the Dividend Reserve will expire on the date of the 2022 annual general meeting, on which date any balance remaining in the Dividend Reserve will be automatically reallocated to the capital contribution reserves account.

If the Annual General Meeting approves this proposal, our Board currently intends to distribute the dividend in four equal installments of $0.80 each, on record dates at about the end of June, September, December and March, respectively, with payment dates about 21 days thereafter.

At December 31, 2020, 450,732,625 of the Company's Common Shares were eligible for dividends.

At the 2020 annual general meeting, the Company's shareholders approved an aggregate annual dividend by way of a distribution from Capital contribution reserves, transferred to free reserves at the time of payment in 2020 totaling $3.12 per Common Share. The annual dividend was payable in four installments, each denominated in CHF but adjusted appropriately so that the U.S. dollar value of the installment remained at $0.78. The installments were subject to a dividend cap expressed in CHF which was not reached for 2020.

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (SWISS STATUTORY) FINANCIAL STATEMENTS

Report of the statutory auditor on the financial statements
As statutory auditor, we have audited the accompanying financial statements of Chubb Limited, which comprise the balance sheet as at December 31, 2020, the statement of income and notes (pages S-2 to S-12) for the year then ended.

Board of Directors' responsibility
The Board of Directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the company's articles of association. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements for the year ended December 31, 2020 comply with Swiss law and the company's articles of association.

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority
Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Investments in subsidiaries

Key audit matter	How our audit addressed the key audit matter
As set out in the balance sheet and at footnote 4, the Company owns five direct subsidiaries as at December 31, 2020 with a total book value of CHF 33.2 billion, representing 91% of the Company's total assets. We focused on this area due to the size of the investments in subsidiaries relative to the total assets, and the fact that there is judgment involved in assessing whether the carrying values of the investments in subsidiaries were impaired. The Swiss accounting law generally requires an individual impairment test at the investment or unit of account level.	We obtained an understanding of management's process and controls, and assessed and tested the design and operating effectiveness of a selected key control over the recoverability of the carrying value of investments in subsidiaries. In relation to the particular matters set out opposite, our testing procedures included the following: • We tested the Company's impairment analyses performed for the five direct subsidiaries. The assessment of potential impairment indicators included as a first step the comparison of the recorded Swiss statutory carrying value with the net asset value of each subsidiary. In case the net asset value was smaller than the carrying value, a secondary, more judgmental, step was followed using additional valuation techniques, such as a value-in-use assessment, to assess whether there was any potential need for impairment. • Where a value-in-use metric was used, we challenged management as to whether the input data and assumptions to their model were reliable and reasonable. The most important parameters were underwriting income, investment income and operating expenses. Based on the work performed we consider management's impairment analyses including the assumptions used to support the carrying value of investments in subsidiaries as reasonable.

Report on other legal requirements
We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (SWISS STATUTORY) FINANCIAL STATEMENTS *(continued)*

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of association. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG

/s/ Peter Eberli
Peter Eberli

Audit expert
Auditor in charge

/s/ Nicolas Juillerat
Nicolas Juillerat

Audit expert

Zurich, March 1, 2021

CHUBB LIMITED

SWISS STATUTORY COMPENSATION REPORT

December 31, 2020

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A. General

Under the Swiss ordinance against excessive compensation in stock exchange listed companies (the "Ordinance") and our Articles of Association, we are required to prepare a separate Swiss Statutory Compensation Report each year that contains specific items in a presentation format determined by these regulations.

Our Executive Management (as defined under Swiss law) is appointed by our Board and for each of 2020 and 2019 consisted of Evan G. Greenberg, Chairman and Chief Executive Officer; Philip V. Bancroft, Chief Financial Officer; John W. Keogh, President and Chief Operating Officer; and Joseph F. Wayland, General Counsel and Secretary.

For more detailed information about compensation for our Board of Directors and Executive Management, please review our Proxy Statement in connection with our 2021 annual general meeting of shareholders. You may access this report on the Investor Information section of our website at http://investors.chubb.com/investor-relations/shareholder-resources/shareholder-meeting-materials/default.aspx or by contacting Investor Relations by telephone, email or mail at:

Telephone: +1 (212) 827-4445

Email: investorrelations@chubb.com

Mail: Investor Relations, Chubb Limited, 1133 Avenue of the Americas, 11th Floor, New York, New York 10036

References in this report to "we," "our" or "Chubb" are to Chubb Limited.

B. Compensation of the Board of Directors and Executive Management

Basis of Presentation

The following information sets forth the compensation for the years ended December 31, 2020 and 2019, of the members of the Board and Executive Management for all of the functions that they have performed for Chubb. Compensation of the Board is paid by Chubb. Compensation of Executive Management is paid by Chubb and the Chubb group entities where they are employed. Compensation is paid as a combination of both U.S. dollars, our functional reporting currency, with translation of certain amounts to whole Swiss francs. Where presented, 2020 and 2019 Swiss franc compensation figures have been translated at the average exchange rates. Swiss franc-equivalent total compensation of the Board and Executive Management is included in Tables 1 and 2 below. The average exchange rate we used for U.S. dollars into Swiss francs was 0.93808 in 2020 and 0.99365 in 2019.

This report is established in accordance with the provisions of the Ordinance.

Compensation of the Board of Directors

Our directors receive compensation in accordance with our Outside Directors Compensation Parameters. Effective May 2020, the Board approved an increase in the Risk & Finance Committee chair fee from $20,000 to $25,000. No other changes were made to our Outside Directors Compensation Parameters in 2020. The Board had previously approved other changes to the Outside Directors Compensation Parameters effective as of May 2019 based on, among other things, a comparison of our compensation structure to that of our competitors and other insurance and similarly-sized companies, and the determination that total director compensation was below the median of such companies. The modifications were an increase in the cash retainer from $120,000 to $125,000, and an increase in the equity retainer from $170,000 to $180,000. The compensation of the Board for the financial years 2020 and 2019 set forth in Table 1 is therefore composed of compensation under the respective prior parameters from January 1 to the date of our 2020 and 2019 annual general meetings, respectively, and compensation under the revised parameters from such date through the end of the applicable financial year.

The equity retainer noted above is in the form of restricted stock awards, based on the fair value of Chubb's Common Shares as of the date of the award. Restricted stock awards vest at the following year's annual general meeting. The remaining portion of the annual fee is paid to non-management directors in cash quarterly, although directors may elect to receive up to all of their compensation, other than compensation for special meetings, in the form of restricted stock awards.

The Lead Director received a fee of $50,000 (CHF 46,904) in 2020. Committee chair fees were received as follows:

Audit Committee - $35,000 (CHF 32,833)
Compensation Committee - $25,000 (CHF 23,452)
Nominating & Governance Committee - $20,000 (CHF 18,762)
Risk & Finance Committee - $25,000 (CHF 23,452) (fee increased from $20,000 to $25,000 in May 2020)

Directors are not paid fees for attending regular Board or committee meetings, but, at the discretion of the Chairman of the Board and the Lead Director, Chubb may pay an additional $2,000 fee for each special meeting attended by telephone and $3,000 for each special meeting attended in person. Such fees were not paid in 2020 or 2019.

Chubb's Corporate Governance Guidelines specify director equity ownership requirements. Chubb awards independent directors restricted stock awards and mandates minimum equity ownership of $600,000 for outside directors (based on the stock price on the date of award). Each director has until the fifth anniversary of his or her initial election to the Board to achieve this minimum. The previously granted restricted stock awards (whether or not vested) will be counted toward achieving this minimum.

Once a director has achieved the minimum equity ownership, this requirement will remain satisfied going forward as long as he or she retains the number of shares valued at the minimum amount based on the New York Stock Exchange closing price for Chubb's Common Shares as of the date the minimum threshold is initially met. Any vested shares held by a director in excess of the minimum share equivalent specified above may be sold at the director's discretion after consultation with Chubb's General Counsel.

No compensation was paid to former directors nor did any former director receive any benefits in kind or waivers of claims during the years ended December 31, 2020 and 2019. During the years ended December 31, 2020 and 2019, no current directors received benefits in kind or waivers of claims and no compensation had been paid to any related party of current or former directors, except as noted below with respect to our director charitable contributions program. Additionally, no related party of current or former directors received any benefits in kind or waivers of claims during 2020 or 2019. At each of December 31, 2020 and 2019, no current or former directors or any related party of current or former directors had outstanding loans or credits from Chubb.

Chubb has a matching contribution program for directors under which Chubb will match director charitable contributions to eligible registered charities, churches, and other places of worship or schools up to a maximum of $20,000 per year. In 2020, in line with Chubb's commitment to COVID-19 pandemic relief efforts globally, Chubb also matched director contributions up to an additional $20,000 to eligible non-profit organizations delivering pandemic relief support. For Swiss law purposes, some of these matching contributions during the years ended December 31, 2020 and 2019 qualified as related party transactions because our directors or members of their immediate family were directors or officers of the organization. Chubb matched a total of $124,500 (CHF 116,791) in contributions to seven such organizations in 2020 and $78,000 (CHF 77,505) in contributions to seven such organizations in 2019.

The following table presents information concerning director compensation paid or, in the case of restricted stock awards, earned in the years ended December 31, 2020 and 2019. Although Evan G. Greenberg is Chairman of the Board, Mr. Greenberg received no compensation in respect of these duties. Details of Mr. Greenberg's compensation in his capacity as a member of Executive Management are included in Table 2 below.

Table 1 - audited

Name	Year	Board Function	Fees Earned or Paid	Stock Awards [1]	All Other [2]	Total in USD	Total in CHF
Michael G. Atieh	**2020**	**Member**	**$ 125,000**	**$ 180,000**	**$ 108,843**	**$ 413,843**	**CHF 388,219**
	2019	Member	$ 123,750	$ 176,250	$ 103,097	$ 403,097	CHF 400,540
Sheila P. Burke	**2020**	**Member**	**125,000**	**180,000**	**32,431**	**337,431**	**316,538**
	2019	Member	123,750	176,250	30,720	330,720	328,622
James I. Cash	**2020**	**Member**	**125,000**	**180,000**	**10,290**	**315,290**	**295,768**
	2019	Member	123,750	176,250	9,748	309,748	307,783
Mary Cirillo	**2020**	**Member Chair - Nominating & Governance**	—	**325,000**	**45,320**	**370,320**	**347,390**
	2019	Member Chair - Nominating & Governance	—	319,375	42,930	362,305	360,007
Michael P. Connors	**2020**	**Lead Director Chair - Compensation**	**187,500**	**180,000**	—	**367,500**	**344,745**
	2019	Member Chair - Compensation	148,750	176,250	—	325,000	322,938
John A. Edwardson	**2020**	**Member**	—	**305,000**	—	**305,000**	**286,115**
	2019	Member	—	299,375	—	299,375	297,476
Robert M. Hernandez	**2020**	**Lead Director (Retired)**	**43,750**	**67,500**	**66,445**	**177,695**	**166,692**
	2019	Lead Director	173,750	176,250	75,704	425,704	423,003
Robert J. Hugin [3]	**2020**	**Member**	—	**190,625**	—	**190,625**	**178,822**
Kimberly A. Ross	**2020**	**Member (Retired)**	**31,250**	**67,500**	**3,500**	**102,250**	**95,919**
	2019	Member	123,750	176,250	—	300,000	298,097
Robert W. Scully	**2020**	**Member Chair - Audit**	—	**340,000**	—	**340,000**	**318,948**
	2019	Member Chair - Audit	—	334,375	—	334,375	332,254
Eugene B. Shanks, Jr.	**2020**	**Member**	**125,000**	**180,000**	—	**305,000**	**286,115**
	2019	Member	123,750	176,250	—	300,000	298,097
Theodore E. Shasta	**2020**	**Member**	**125,000**	**180,000**	—	**305,000**	**286,115**
	2019	Member	123,750	176,250	—	300,000	298,097
David H. Sidwell	**2020**	**Member**	**125,000**	**180,000**	—	**305,000**	**286,115**
	2019	Member	123,750	176,250	—	300,000	298,097
Olivier Steimer	**2020**	**Member Chair - Risk & Finance**	**148,750**	**180,000**	**10,979**	**339,729**	**318,694**
	2019	Member Chair - Risk & Finance	143,750	176,250	10,399	330,399	328,303
Frances F. Townsend	**2020**	**Member**	**93,750**	**112,500**	—	**206,250**	**193,479**
James M. Zimmerman	**2020**	**Retired**	—	—	—	—	—
	2019	Member (Retired)	30,000	63,750	2,510	96,260	95,649
Total [4]	**2020**		**$ 1,255,000**	**$ 2,848,125**	**$ 277,808**	**$ 4,380,933**	**CHF 4,109,674**
	2019		$ 1,362,500	$ 2,779,375	$ 275,108	$ 4,416,983	CHF 4,388,963

[1] The Stock Awards column reflects restricted stock awards earned during 2020 and 2019. These stock awards were granted at fair value in May 2020 and May 2019, respectively, at the annual general meetings and vest at the subsequent year's annual general meeting.

[2] The All Other column includes dividend equivalents on our deferred restricted stock units (which we stopped issuing in 2009) held by our longer-serving directors. We issue stock units equivalent in value to the dividend payments that those directors would have received if they held stock.
Ms. Burke and Mr. Cash received deferred market value units from The Chubb Corporation prior to its acquisition by us in January 2016. Each unit has the equivalent value of one share of our common stock. These units are credited with market value units equivalent in value to the dividend payments they would have received if they held stock.

[3] Prior to his election to the Board in May 2020, Mr. Robert J. Hugin served a consultant to the Board. For such service, which terminated prior to his election to the Board, Mr. Hugin received consultant fees in 2020 of $31,250 (CHF 29,315), none of which relating to service as a director.

[4] Total director compensation in 2020 reflects (i) one less director for a portion of the year compared to 2019 as a result of the retirement of James M. Zimmerman as of the date of the May 2019 annual general meeting of shareholders, and (ii) the retirement from the Board of Kimberly A. Ross and Robert M. Hernandez as of the date of the May 2020 annual general meeting of shareholders.

Compensation of Executive Management

The following table presents information concerning Executive Management's 2020 and 2019 compensation.

Table 2 - audited

Name and Principal Position	Year	Salary	Bonus	Stock Awards [1]	Option Awards [2]	All Other Compensation [3]	Total in USD	Total in CHF
Evan G. Greenberg Chairman and Chief Executive Officer, Chubb Limited (highest paid executive)	**2020**	**$ 1,400,000**	**$ 5,700,000**	**$ 10,125,007**	**$ 2,996,944**	**$ 1,185,811**	**$ 21,407,762**	**CHF 20,082,234**
	2019	$ 1,400,000	$ 6,700,000	$ 10,125,070	$ 1,917,286	$ 1,267,971	$ 21,410,327	CHF 21,274,500
All Other Executive Management	**2020**	**$ 2,690,769**	**$ 4,576,800**	**$ 7,030,402**	**$ 2,080,895**	**$ 1,301,790**	**$ 17,680,656**	**CHF 16,585,903**
	2019	$ 2,583,135	$ 5,159,400	$ 7,211,734	$ 1,365,545	$ 1,267,109	$ 17,586,923	CHF 17,475,352
Total	**2020**	**$ 4,090,769**	**$10,276,800**	**$ 17,155,409**	**$ 5,077,839**	**$ 2,487,601**	**$ 39,088,418**	**CHF 36,668,137**
	2019	$ 3,983,135	$11,859,400	$ 17,336,804	$ 3,282,831	$ 2,535,080	$ 38,997,250	CHF 38,749,852

[1] The Stock Awards column discloses the fair value of the restricted stock awards granted on February 25, 2021 for 2020 and February 27, 2020 for 2019, respectively. This column includes time-based and performance-based restricted stock awards. In comparison, the Summary Compensation Table in the Company's annual proxy statement (unaudited) discloses equity grants for a particular fiscal year based on the grants made during that fiscal year.

[2] The Option Awards column discloses the fair value of the stock options granted on February 25, 2021 for 2020 and February 27, 2020 for 2019, respectively. In comparison, the Summary Compensation Table in the Company's annual proxy statement (unaudited) discloses equity grants for a particular fiscal year based on the grants made during that fiscal year.

[3] All Other Compensation column includes perquisites and other personal benefits, consisting of the following:

For Mr. Greenberg, contributions to retirement plans of $972,000 (CHF 911,816) in 2020 and $900,000 (CHF 894,290) in 2019, personal use of corporate aircraft of $164,043 (CHF 153,886) in 2020 and $329,683 (CHF 327,591) in 2019, and miscellaneous other benefits of $49,768 (CHF 46,686) in 2020 and $38,288 (CHF 38,045) in 2019, including executive medical coverage and matching contributions made under our matching charitable contributions program. The Board required Mr. Greenberg to use corporate aircraft for all travel whenever practicable for security reasons.

For the other members of Executive Management, contributions to retirement plans, personal use of corporate aircraft and corporate apartment, and miscellaneous other benefits, including, as applicable, club memberships, financial planning, executive medical coverage, matching contributions made under our matching charitable contributions program, car allowance or car lease and car maintenance allowance.

Personal use of the corporate aircraft was limited to space available on normally scheduled management business flights

Other personal benefits including housing allowances and cost of living allowance.

In 2020 and 2019, housing allowances were provided to Mr. Bancroft because Chubb requires him to maintain a second residence in addition to maintaining his own personal residence.

Contributions to retirement plans for 2020 and 2019 totaled $1 78 million (CHF 1 67 million) and $1 65 million (CHF 1.64 million), respectively. These consist of discretionary and non-discretionary employer contributions. The discretionary employer contributions for 2020 have been calculated and are expected to be paid in April 2021.

No former member of Executive Management or any related party of current or former Executive Management received non-market standard compensation from Chubb during each of the years ended December 31, 2020 and 2019. Additionally, no current or former member of Executive Management or any related party thereto received benefits in kind or waivers of claims during 2020 or 2019 other than as described in the footnotes to Table 2.

At each of December 31, 2020 and 2019, no current or former member of Executive Management or any related party of a current or former member of Executive Management had outstanding loans or credits from Chubb.

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (SWISS STATUTORY) COMPENSATION REPORT

Report of the statutory auditor on the compensation report
We have audited the accompanying compensation report of Chubb Limited for the year ended December 31, 2020. The audit was limited to the information according to articles 14-16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in the tables labeled "audited" on pages SC-4 to SC-5 of the compensation report.

Board of Directors' responsibility
The Board of Directors is responsible for the preparation and overall fair presentation of the compensation report in accordance with Swiss law and the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance). The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.

Auditor's responsibility
Our responsibility is to express an opinion on the accompanying compensation report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the compensation report complies with Swiss law and articles 14-16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the compensation report with regard to compensation, loans and credits in accordance with articles 14-16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the compensation report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of remuneration, as well as assessing the overall presentation of the compensation report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion
In our opinion, the compensation report of Chubb Limited for the year ended December 31, 2020 complies with Swiss law and articles 14-16 of the Ordinance.

PricewaterhouseCoopers AG

/s/ Peter Eberli
Peter Eberli

Audit expert
Auditor in charge

/s/ Nicolas Juillerat
Nicolas Juillerat

Audit expert

Zurich, March 24, 2021

ENVIRONMENTAL STATEMENT

Chubb Greenhouse Gas Reduction Programs

As an insurance company, Chubb's environmental footprint is relatively modest, but through our corporate greenhouse gas inventory program and corporate environmental strategy, we work to reduce it even further. Some of the primary objectives of our environmental strategy are to measure, record and reduce Chubb's corporate GHG emissions.

In 2019, Chubb announced companywide goals to reduce GHG emissions globally 20% on an absolute basis by 2025 and 40% by 2035. Both goals use 2016 emissions levels as the baseline and are aligned with the two-degree Celsius target outlined in the Paris Climate Agreement, as well as the quantitatively supported science-based standards (SBTs) methodology of the United Nations Environment Program (UNEP). Chubb achieved its first goal of reducing emissions by 20% in 2019. Chubb is now pursuing its longer-term 40% emissions reduction goal. While 2020 resulted in emissions reduction of 41% off the 2016 baseline, emissions in 2020 were an anomaly because of the global COVID-19 pandemic and do not indicate achievement of Chubb's medium-term GHG reduction goal. Chubb's 2020 emissions reduction build on earlier progress. In 2007, the company, then named ACE, joined the voluntary U.S. Environmental Protection Agency (EPA)-sponsored Climate Leaders program, through which the company was able to develop long-term, comprehensive climate change strategies, inventory its emissions and set a six-year GHG reduction goal of 8% per employee. While the EPA program was discontinued in September 2011, Chubb's corporate GHG inventory program remains active using its methodology, which is based on the World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol for data collection and analysis. In 2012, Chubb successfully met its first-generation GHG reduction goal with a 27% reduction in emissions per employee since 2006. In September 2014, the company announced a second GHG reduction target to reduce emissions 10% per employee by 2020 from a 2012 base year. From 2015 to 2018, Chubb reduced its global absolute GHG emissions by 21%.

Chubb 2020 GHG Inventory Data	2020
Global Absolute Emissions (CO_2-eq.)	**51,701**

The data above represent 16,313 metric tons of CO_2-eq. of Scope 1 emissions from fossil fuel combustion; 38,827 metric tons of CO_2-eq. of location-based Scope 2 emissions; and 35,388 metric tons of CO_2-eq. of market-based Scope 2 emissions from purchased electricity. Chubb's GHG emissions data are reviewed by a third-party on an annual basis. The company's most recent 2020 GHG inventory was reviewed by Apex Companies, LLC and the verification statement can be found on the following page.

In addition to tracking GHG emissions versus its goals, Chubb reports its GHG emissions data to the CDP, an organization that scores carbon emissions information from thousands of corporations on behalf of the global investment community. In 2020, Chubb's response to the questionnaire resulted in a score of B.

Chubb's global GHG management plan partly consists of reducing energy consumption at the facility level – specifically, in owned buildings and larger, long-term leased spaces. Projects have been implemented at a number of major offices including Philadelphia, Pa.; Wilmington, Del.; Whitehouse Station, N.J.; Hamilton, Bermuda; Sydney, Australia; London, U.K.; and Monterrey, Mexico.

In Chubb's office building in Philadelphia, the company has reduced energy consumption by over 20% since 2006 through the installation of new boilers and LED lighting, the use of variable speed drive HVAC equipment and installation of an exhaust energy recovery ventilator. Through these steps, the company earned LEED Silver certification in 2009 and was awarded LEED Platinum certification in 2020.

In July 2011, the company's Bermuda office building was awarded LEED Gold certification and became the first building in Bermuda to be awarded the designation. Energy efficiency projects done in the course of pursuing the certification reduced electrical needs by approximately 500,000 kWh (358 metric tons CO_2e) per year. In 2014, the company engaged with the U.S. Green Building Council (USGBC) and the Bermuda facility became one of the first buildings using LEED Dynamic Plaque, a tool that continuously monitors and encourages improvement of overall building performance. The building was re-certified LEED Platinum in 2019.

In Chubb's two office buildings in Whitehouse Station, N.J., the company has reduced energy consumption through the installation of LED lighting, the use of variable speed drive HVAC equipment and careful management. The buildings were awarded LEED Gold certification for the first time in 2020.

Chubb's global GHG management plan also includes purchase of renewable electricity for many of the company's largest offices. Chubb's U.K. locations are 100% powered by renewable energy. As of July 2020, Chubb's locations in Pennsylvania, Delaware, and Illinois are powered by renewable energy. Locations in New Jersey and Connecticut will follow in July 2021.

Information about Chubb's full range of environmental efforts, including insurance solutions to help customers manage their environmental and climate change risks, corporate initiatives to control our own ecological impact and philanthropic actions in support of environmental causes, can be found in the company's annual Environmental Report, which is available at https://www.chubb.com/environment.

/ERIFICATION OPINION DECLARATION
3REENHOUSE GAS EMISSIONS

APEX

\pex Companies, LLC (Apex) was engaged to provide Limited \ssurance and conduct an independent verification of the greenhouse jas (GHG) emissions and energy consumption reported by Chubb from lanuary 1, 2020 to December 31, 2020. This Verification Opinion)eclaration applies to the related information included within the scope)f work described below.

The determination of the GHG emissions is the sole responsibility of Chubb. Apex was not involved in determining the GHG emissions. Our sole responsibility was to provide independent verification on the accuracy of the GHG emissions reported, and on the underlying systems and processes used to collect, analyze and review the information.

Boundaries of the reporting company GHG emissions covered by he verification:

- Operational Control
- Global

Emissions verified in Metric tonnes of CO_2-equivalent (tCO_2e):

- Scope 1 Emissions: **16,313**
- Scope 2 Emissions (Location-Based): **38,827**
- Scope 2 Emissions (Market-Based): **35,388**
- Scope 3 Emissions (Business Travel - Air): **4,636**

Data and information supporting the Scope 1 & Scope 2 GHG emissions vere historical in nature and in some cases estimated, based on iistorical data for similar properties in similar locations. Data and nformation supporting the Scope 3 GHG emissions assertion were in some cases estimated rather than historical in nature.

Period covered by GHG emissions verification:

- January 1, 2020 to December 31, 2020

Reporting Protocols against which verification was conducted:

- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol, Corporate Accounting and Reporting Standard **(Scope 1 & 2)**
- WRI/WBCSD Corporate Value Chain (Scope 3) Accounting and Reporting Standard **(Scope 3)**

GHG Verification Protocols used to conduct the verification:

- ISO 14064-3: Greenhouse gases -- Part 3: Specification with guidance for the verification and validation of greenhouse gas assertions

Level of Assurance and Qualifications:

- Limited
- Materiality Threshold: ±5%

/erification Methodology:

- Interviews with relevant personnel of Chubb;
- Review of documentary evidence produced by Chubb;
- Review of Chubb data and information systems and methodolog for collection, aggregation, analysis and review of information use to determine GHG emissions;
- Audit of samples of data used by Chubb to determine GH emissions.

Assurance Opinion:

Based on the results of our verification process, Apex provides Limited Assurance of the GHG emissions and energy assertion shown above, and found no evidence that the assertion:

- is not materially correct;
- is not a fair representation of the GHG emissions and energy data and information; and
- is not prepared in accordance with the WRI/WBCSD GHG Protocol Corporate Accounting and Reporting Standard.

It is our opinion that Chubb has established appropriate systems for the collection, aggregation and analysis of quantitative data for determinatio of GHG emissions for the stated period and boundaries.

Statement of independence, impartiality and competence

Apex has implemented a Code of Ethics across the business to maintai high ethical standards among staff in their day-to-day busines activities. We are particularly vigilant in the prevention of conflicts c interest.

No member of the verification team has a business relationship wit Chubb, its Directors or Managers beyond that required of thi assignment. We conducted this verification independently and to ou knowledge there has been no conflict of interest.

The verification team has extensive experience in conducting assuranc over environmental, social, ethical and health and safety informatior systems and processes, has over 30 years combined experience in thi field and an excellent understanding of Apex standard methodology fc the verification of greenhouse gas emissions data.

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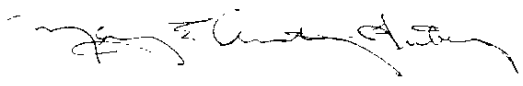

Mary E. Armstrong-Friberg, Lead Verifier

Principal Consultant

Sustainability and Climate Change Services

Apex Companies, LLC

March 12, 2021

This verification statement, including the opinion expressed herein, is provided to Chubb and is solely for the benefit of Chubb in accordance with the terms of ur agreement. We consent to the release or publication of this statement by Chubb in order to satisfy its ESG disclosure requirements and objectives, but vithout accepting or assuming any responsibility or liability on our part to any party who may have access to this statement.

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Chubb Limited
Annual Report
2020

THESE ACCOUNTS
FORM PART OF THE
GROUP ACCOUNTS
OF COMPANY
No. 5073085

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Form 10-K

Swiss Statutory Financial Statements

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Environmental Statement

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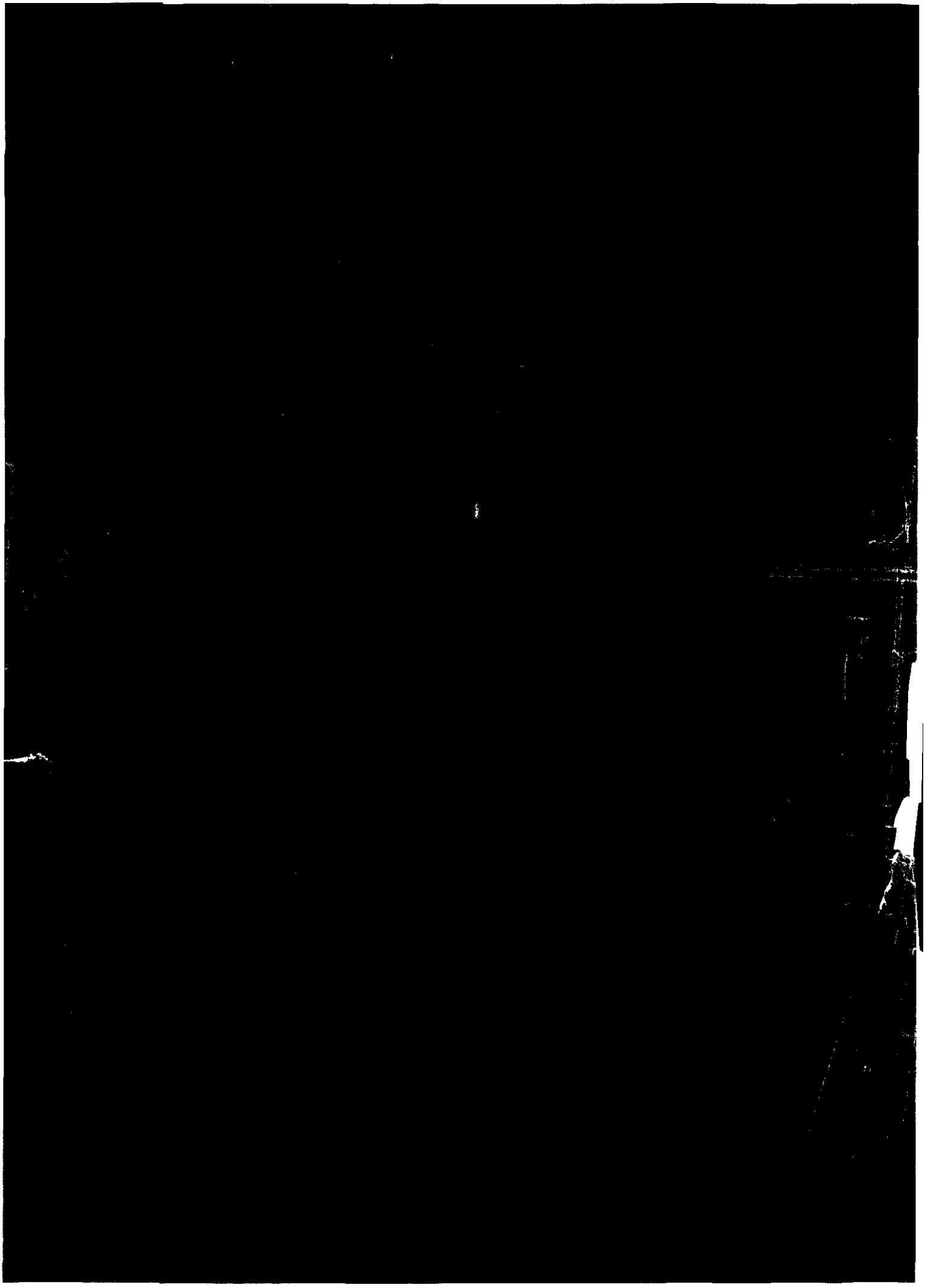

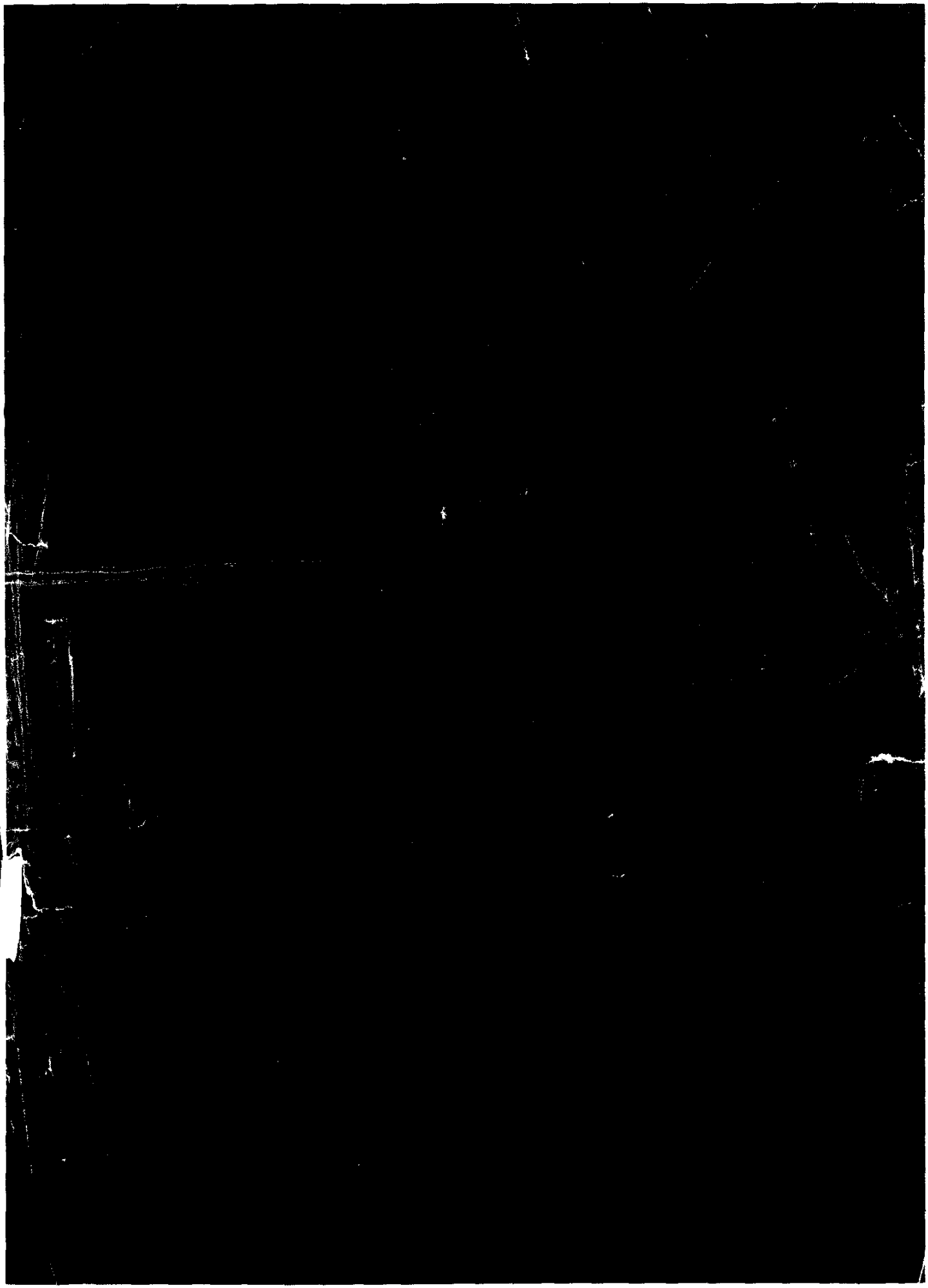

/ERIFICATION OPINION DECLARATION
3REENHOUSE GAS EMISSIONS

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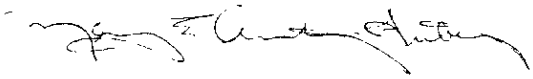

Mary E. Armstrong-Friberg, Lead Verifier

Principal Consultant

Sustainability and Climate Change Services

Apex Companies, LLC

March 12, 2021

This verification statement, including the opinion expressed herein, is provided to Chubb and is solely for the benefit of Chubb in accordance with the terms of our agreement. We consent to the release or publication of this statement by Chubb in order to satisfy its ESG disclosure requirements and objectives, but without accepting or assuming any responsibility or liability on our part to any party who may have access to this statement.

ENVIRONMENTAL STATEMENT

Chubb Greenhouse Gas Reduction Programs

As an insurance company, Chubb's environmental footprint is relatively modest, but through our corporate greenhouse gas inventory program and corporate environmental strategy, we work to reduce it even further. Some of the primary objectives of our environmental strategy are to measure, record and reduce Chubb's corporate GHG emissions.

In 2019, Chubb announced companywide goals to reduce GHG emissions globally 20% on an absolute basis by 2025 and 40% by 2035. Both goals use 2016 emissions levels as the baseline and are aligned with the two-degree Celsius target outlined in the Paris Climate Agreement, as well as the quantitatively supported science-based standards (SBTs) methodology of the United Nations Environment Program (UNEP). Chubb achieved its first goal of reducing emissions by 20% in 2019. Chubb is now pursuing its longer-term 40% emissions reduction goal. While 2020 resulted in emissions reduction of 41% off the 2016 baseline, emissions in 2020 were an anomaly because of the global COVID-19 pandemic and do not indicate achievement of Chubb's medium-term GHG reduction goal. Chubb's 2020 emissions reduction build on earlier progress. In 2007, the company, then named ACE, joined the voluntary U.S. Environmental Protection Agency (EPA)-sponsored Climate Leaders program, through which the company was able to develop long-term, comprehensive climate change strategies, inventory its emissions and set a six-year GHG reduction goal of 8% per employee. While the EPA program was discontinued in September 2011, Chubb's corporate GHG inventory program remains active using its methodology, which is based on the World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol for data collection and analysis. In 2012, Chubb successfully met its first-generation GHG reduction goal with a 27% reduction in emissions per employee since 2006. In September 2014, the company announced a second GHG reduction target to reduce emissions 10% per employee by 2020 from a 2012 base year. From 2015 to 2018, Chubb reduced its global absolute GHG emissions by 21%.

Chubb 2020 GHG Inventory Data	2020
Global Absolute Emissions (CO_2-eq.)	**51,701**

The data above represent 16,313 metric tons of CO_2-eq. of Scope 1 emissions from fossil fuel combustion; 38,827 metric tons of CO_2-eq. of location-based Scope 2 emissions; and 35,388 metric tons of CO_2-eq. of market-based Scope 2 emissions from purchased electricity. Chubb's GHG emissions data are reviewed by a third-party on an annual basis. The company's most recent 2020 GHG inventory was reviewed by Apex Companies, LLC and the verification statement can be found on the following page.

In addition to tracking GHG emissions versus its goals, Chubb reports its GHG emissions data to the CDP, an organization that scores carbon emissions information from thousands of corporations on behalf of the global investment community. In 2020, Chubb's response to the questionnaire resulted in a score of B.

Chubb's global GHG management plan partly consists of reducing energy consumption at the facility level – specifically, in owned buildings and larger, long-term leased spaces. Projects have been implemented at a number of major offices including Philadelphia, Pa.; Wilmington, Del.; Whitehouse Station, N.J.; Hamilton, Bermuda; Sydney, Australia; London, U.K.; and Monterrey, Mexico.

In Chubb's office building in Philadelphia, the company has reduced energy consumption by over 20% since 2006 through the installation of new boilers and LED lighting, the use of variable speed drive HVAC equipment and installation of an exhaust energy recovery ventilator. Through these steps, the company earned LEED Silver certification in 2009 and was awarded LEED Platinum certification in 2020.

In July 2011, the company's Bermuda office building was awarded LEED Gold certification and became the first building in Bermuda to be awarded the designation. Energy efficiency projects done in the course of pursuing the certification reduced electrical needs by approximately 500,000 kWh (358 metric tons CO_2e) per year. In 2014, the company engaged with the U.S. Green Building Council (USGBC) and the Bermuda facility became one of the first buildings using LEED Dynamic Plaque, a tool that continuously monitors and encourages improvement of overall building performance. The building was re-certified LEED Platinum in 2019.

In Chubb's two office buildings in Whitehouse Station, N.J., the company has reduced energy consumption through the installation of LED lighting, the use of variable speed drive HVAC equipment and careful management. The buildings were awarded LEED Gold certification for the first time in 2020.

Chubb's global GHG management plan also includes purchase of renewable electricity for many of the company's largest offices. Chubb's U.K. locations are 100% powered by renewable energy. As of July 2020, Chubb's locations in Pennsylvania, Delaware, and Illinois are powered by renewable energy. Locations in New Jersey and Connecticut will follow in July 2021.

Information about Chubb's full range of environmental efforts, including insurance solutions to help customers manage their environmental and climate change risks, corporate initiatives to control our own ecological impact and philanthropic actions in support of environmental causes, can be found in the company's annual Environmental Report, which is available at https://www.chubb.com/environment.

CHUBB LIMITED

SWISS STATUTORY COMPENSATION REPORT

December 31, 2020

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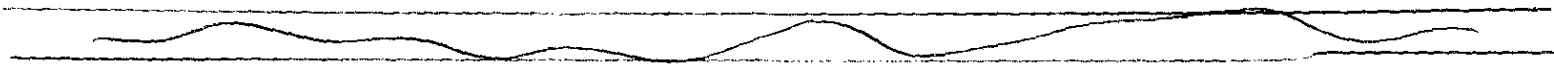


A. General

Under the Swiss ordinance against excessive compensation in stock exchange listed companies (the "Ordinance") and our Articles of Association, we are required to prepare a separate Swiss Statutory Compensation Report each year that contains specific items in a presentation format determined by these regulations.

Our Executive Management (as defined under Swiss law) is appointed by our Board and for each of 2020 and 2019 consisted of Evan G. Greenberg, Chairman and Chief Executive Officer; Philip V. Bancroft, Chief Financial Officer; John W. Keogh, President and Chief Operating Officer; and Joseph F. Wayland, General Counsel and Secretary.

For more detailed information about compensation for our Board of Directors and Executive Management, please review our Proxy Statement in connection with our 2021 annual general meeting of shareholders. You may access this report on the Investor Information section of our website at http://investors.chubb.com/investor-relations/shareholder-resources/shareholder-meeting-materials/default.aspx or by contacting Investor Relations by telephone, email or mail at:

Telephone: +1 (212) 827-4445

Email: investorrelations@chubb.com

Mail: Investor Relations, Chubb Limited, 1133 Avenue of the Americas, 11th Floor, New York, New York 10036

References in this report to "we," "our" or "Chubb" are to Chubb Limited.

B. Compensation of the Board of Directors and Executive Management

Basis of Presentation

The following information sets forth the compensation for the years ended December 31, 2020 and 2019, of the members of the Board and Executive Management for all of the functions that they have performed for Chubb. Compensation of the Board is paid by Chubb. Compensation of Executive Management is paid by Chubb and the Chubb group entities where they are employed. Compensation is paid as a combination of both U.S. dollars, our functional reporting currency, with translation of certain amounts to whole Swiss francs. Where presented, 2020 and 2019 Swiss franc compensation figures have been translated at the average exchange rates. Swiss franc-equivalent total compensation of the Board and Executive Management is included in Tables 1 and 2 below. The average exchange rate we used for U.S. dollars into Swiss francs was 0.93808 in 2020 and 0.99365 in 2019.

This report is established in accordance with the provisions of the Ordinance.

Compensation of the Board of Directors

Our directors receive compensation in accordance with our Outside Directors Compensation Parameters. Effective May 2020, the Board approved an increase in the Risk & Finance Committee chair fee from $20,000 to $25,000. No other changes were made to our Outside Directors Compensation Parameters in 2020. The Board had previously approved other changes to the Outside Directors Compensation Parameters effective as of May 2019 based on, among other things, a comparison of our compensation structure to that of our competitors and other insurance and similarly-sized companies, and the determination that total director compensation was below the median of such companies. The modifications were an increase in the cash retainer from $120,000 to $125,000, and an increase in the equity retainer from $170,000 to $180,000. The compensation of the Board for the financial years 2020 and 2019 set forth in Table 1 is therefore composed of compensation under the respective prior parameters from January 1 to the date of our 2020 and 2019 annual general meetings, respectively, and compensation under the revised parameters from such date through the end of the applicable financial year.

The equity retainer noted above is in the form of restricted stock awards, based on the fair value of Chubb's Common Shares as of the date of the award. Restricted stock awards vest at the following year's annual general meeting. The remaining portion of the annual fee is paid to non-management directors in cash quarterly, although directors may elect to receive up to all of their compensation, other than compensation for special meetings, in the form of restricted stock awards.

The Lead Director received a fee of $50,000 (CHF 46,904) in 2020. Committee chair fees were received as follows:

Audit Committee - $35,000 (CHF 32,833)
Compensation Committee - $25,000 (CHF 23,452)
Nominating & Governance Committee - $20,000 (CHF 18,762)
Risk & Finance Committee - $25,000 (CHF 23,452) (fee increased from $20,000 to $25,000 in May 2020)

Directors are not paid fees for attending regular Board or committee meetings, but, at the discretion of the Chairman of the Board and the Lead Director, Chubb may pay an additional $2,000 fee for each special meeting attended by telephone and $3,000 for each special meeting attended in person. Such fees were not paid in 2020 or 2019.

Chubb's Corporate Governance Guidelines specify director equity ownership requirements. Chubb awards independent directors restricted stock awards and mandates minimum equity ownership of $600,000 for outside directors (based on the stock price on the date of award). Each director has until the fifth anniversary of his or her initial election to the Board to achieve this minimum. The previously granted restricted stock awards (whether or not vested) will be counted toward achieving this minimum.

Once a director has achieved the minimum equity ownership, this requirement will remain satisfied going forward as long as he or she retains the number of shares valued at the minimum amount based on the New York Stock Exchange closing price for Chubb's Common Shares as of the date the minimum threshold is initially met. Any vested shares held by a director in excess of the minimum share equivalent specified above may be sold at the director's discretion after consultation with Chubb's General Counsel.

No compensation was paid to former directors nor did any former director receive any benefits in kind or waivers of claims during the years ended December 31, 2020 and 2019. During the years ended December 31, 2020 and 2019, no current directors received benefits in kind or waivers of claims and no compensation had been paid to any related party of current or former directors, except as noted below with respect to our director charitable contributions program. Additionally, no related party of current or former directors received any benefits in kind or waivers of claims during 2020 or 2019. At each of December 31, 2020 and 2019, no current or former directors or any related party of current or former directors had outstanding loans or credits from Chubb.

Chubb has a matching contribution program for directors under which Chubb will match director charitable contributions to eligible registered charities, churches, and other places of worship or schools up to a maximum of $20,000 per year. In 2020, in line with Chubb's commitment to COVID-19 pandemic relief efforts globally, Chubb also matched director contributions up to an additional $20,000 to eligible non-profit organizations delivering pandemic relief support. For Swiss law purposes, some of these matching contributions during the years ended December 31, 2020 and 2019 qualified as related party transactions because our directors or members of their immediate family were directors or officers of the organization. Chubb matched a total of $124,500 (CHF 116,791) in contributions to seven such organizations in 2020 and $78,000 (CHF 77,505) in contributions to seven such organizations in 2019.

The following table presents information concerning director compensation paid or, in the case of restricted stock awards, earned in the years ended December 31, 2020 and 2019. Although Evan G. Greenberg is Chairman of the Board, Mr. Greenberg received no compensation in respect of these duties. Details of Mr. Greenberg's compensation in his capacity as a member of Executive Management are included in Table 2 below.

Table 1 - audited

Name	Year	Board Function	Fees Earned or Paid	Stock Awards [1]	All Other [2]	Total in USD	Total in CHF
Michael G. Atieh	**2020**	**Member**	**$ 125,000**	**$ 180,000**	**$ 108,843**	**$ 413,843**	**CHF 388,219**
	2019	Member	$ 123,750	$ 176,250	$ 103,097	$ 403,097	CHF 400,540
Sheila P. Burke	**2020**	**Member**	**125,000**	**180,000**	**32,431**	**337,431**	**316,538**
	2019	Member	123,750	176,250	30,720	330,720	328,622
James I. Cash	**2020**	**Member**	**125,000**	**180,000**	**10,290**	**315,290**	**295,768**
	2019	Member	123,750	176,250	9,748	309,748	307,783
Mary Cirillo	**2020**	**Member Chair - Nominating & Governance**	**—**	**325,000**	**45,320**	**370,320**	**347,390**
	2019	Member Chair - Nominating & Governance	—	319,375	42,930	362,305	360,007
Michael P. Connors	**2020**	**Lead Director Chair - Compensation**	**187,500**	**180,000**	**—**	**367,500**	**344,745**
	2019	Member Chair - Compensation	148,750	176,250	—	325,000	322,938
John A. Edwardson	**2020**	**Member**	**—**	**305,000**	**—**	**305,000**	**286,115**
	2019	Member	—	299,375	—	299,375	297,476
Robert M. Hernandez	**2020**	**Lead Director (Retired)**	**43,750**	**67,500**	**66,445**	**177,695**	**166,692**
	2019	Lead Director	173,750	176,250	75,704	425,704	423,003
Robert J. Hugin [3]	**2020**	**Member**	**—**	**190,625**	**—**	**190,625**	**178,822**
Kimberly A. Ross	**2020**	**Member (Retired)**	**31,250**	**67,500**	**3,500**	**102,250**	**95,919**
	2019	Member	123,750	176,250	—	300,000	298,097
Robert W. Scully	**2020**	**Member Chair - Audit**	**—**	**340,000**	**—**	**340,000**	**318,948**
	2019	Member Chair - Audit	—	334,375	—	334,375	332,254
Eugene B. Shanks, Jr.	**2020**	**Member**	**125,000**	**180,000**	**—**	**305,000**	**286,115**
	2019	Member	123,750	176,250	—	300,000	298,097
Theodore E. Shasta	**2020**	**Member**	**125,000**	**180,000**	**—**	**305,000**	**286,115**
	2019	Member	123,750	176,250	—	300,000	298,097
David H. Sidwell	**2020**	**Member**	**125,000**	**180,000**	**—**	**305,000**	**286,115**
	2019	Member	123,750	176,250	—	300,000	298,097
Olivier Steimer	**2020**	**Member Chair - Risk & Finance**	**148,750**	**180,000**	**10,979**	**339,729**	**318,694**
	2019	Member Chair - Risk & Finance	143,750	176,250	10,399	330,399	328,303
Frances F. Townsend	**2020**	**Member**	**93,750**	**112,500**	**—**	**206,250**	**193,479**
James M. Zimmerman	**2020**	**Retired**	**—**	**—**	**—**	**—**	**—**
	2019	Member (Retired)	30,000	63,750	2,510	96,260	95,649
Total [4]	**2020**		**$ 1,255,000**	**$ 2,848,125**	**$ 277,808**	**$ 4,380,933**	**CHF 4,109,674**
	2019		$ 1,362,500	$ 2,779,375	$ 275,108	$ 4,416,983	CHF 4,388,963

[1] The Stock Awards column reflects restricted stock awards earned during 2020 and 2019. These stock awards were granted at fair value in May 2020 and May 2019, respectively, at the annual general meetings and vest at the subsequent year's annual general meeting.

[2] The All Other column includes dividend equivalents on our deferred restricted stock units (which we stopped issuing in 2009) held by our longer-serving directors. We issue stock units equivalent in value to the dividend payments that those directors would have received if they held stock.
Ms. Burke and Mr. Cash received deferred market value units from The Chubb Corporation prior to its acquisition by us in January 2016. Each unit has the equivalent value of one share of our common stock. These units are credited with market value units equivalent in value to the dividend payments they would have received if they held stock.

[3] Prior to his election to the Board in May 2020, Mr. Robert J. Hugin served a consultant to the Board. For such service, which terminated prior to his election to the Board, Mr. Hugin received consultant fees in 2020 of $31,250 (CHF 29,315), none of which relating to service as a director.

[4] Total director compensation in 2020 reflects (i) one less director for a portion of the year compared to 2019 as a result of the retirement of James M. Zimmerman as of the date of the May 2019 annual general meeting of shareholders, and (ii) the retirement from the Board of Kimberly A. Ross and Robert M. Hernandez as of the date of the May 2020 annual general meeting of shareholders.

Compensation of Executive Management

The following table presents information concerning Executive Management's 2020 and 2019 compensation.

Table 2 - audited

Name and Principal Position	Year	Salary	Bonus	Stock Awards [1]	Option Awards [2]	All Other Compensation [3]	Total in USD	Total in CHF
Evan G. Greenberg Chairman and Chief Executive Officer, Chubb Limited (highest paid executive)	**2020**	**$ 1,400,000**	**$ 5,700,000**	**$ 10,125,007**	**$ 2,996,944**	**$ 1,185,811**	**$ 21,407,762**	**CHF 20,082,234**
	2019	$ 1,400,000	$ 6,700,000	$ 10,125,070	$ 1,917,286	$ 1,267,971	$ 21,410,327	CHF 21,274,500
All Other Executive Management	**2020**	**$ 2,690,769**	**$ 4,576,800**	**$ 7,030,402**	**$ 2,080,895**	**$ 1,301,790**	**$ 17,680,656**	**CHF 16,585,903**
	2019	$ 2,583,135	$ 5,159,400	$ 7,211,734	$ 1,365,545	$ 1,267,109	$ 17,586,923	CHF 17,475,352
Total	**2020**	**$ 4,090,769**	**$10,276,800**	**$ 17,155,409**	**$ 5,077,839**	**$ 2,487,601**	**$ 39,088,418**	**CHF 36,668,137**
	2019	$ 3,983,135	$11,859,400	$ 17,336,804	$ 3,282,831	$ 2,535,080	$ 38,997,250	CHF 38,749,852

[1] The Stock Awards column discloses the fair value of the restricted stock awards granted on February 25, 2021 for 2020 and February 27, 2020 for 2019, respectively. This column includes time-based and performance-based restricted stock awards. In comparison, the Summary Compensation Table in the Company's annual proxy statement (unaudited) discloses equity grants for a particular fiscal year based on the grants made during that fiscal year.

[2] The Option Awards column discloses the fair value of the stock options granted on February 25, 2021 for 2020 and February 27, 2020 for 2019, respectively. In comparison, the Summary Compensation Table in the Company's annual proxy statement (unaudited) discloses equity grants for a particular fiscal year based on the grants made during that fiscal year.

[3] All Other Compensation column includes perquisites and other personal benefits, consisting of the following:

For Mr. Greenberg, contributions to retirement plans of $972,000 (CHF 911,816) in 2020 and $900,000 (CHF 894,290) in 2019, personal use of corporate aircraft of $164,043 (CHF 153,886) in 2020 and $329,683 (CHF 327,591) in 2019, and miscellaneous other benefits of $49,768 (CHF 46,686) in 2020 and $38,288 (CHF 38,045) in 2019, including executive medical coverage and matching contributions made under our matching charitable contributions program. The Board required Mr. Greenberg to use corporate aircraft for all travel whenever practicable for security reasons.

For the other members of Executive Management, contributions to retirement plans, personal use of corporate aircraft and corporate apartment, and miscellaneous other benefits, including, as applicable, club memberships, financial planning, executive medical coverage, matching contributions made under our matching charitable contributions program, car allowance or car lease and car maintenance allowance.

Personal use of the corporate aircraft was limited to space available on normally scheduled management business flights

Other personal benefits including housing allowances and cost of living allowance.

In 2020 and 2019, housing allowances were provided to Mr. Bancroft because Chubb requires him to maintain a second residence in addition to maintaining his own personal residence.

Contributions to retirement plans for 2020 and 2019 totaled $1.78 million (CHF 1.67 million) and $1.65 million (CHF 1.64 million), respectively. These consist of discretionary and non-discretionary employer contributions. The discretionary employer contributions for 2020 have been calculated and are expected to be paid in April 2021.

No former member of Executive Management or any related party of current or former Executive Management received non-market standard compensation from Chubb during each of the years ended December 31, 2020 and 2019. Additionally, no current or former member of Executive Management or any related party thereto received benefits in kind or waivers of claims during 2020 or 2019 other than as described in the footnotes to Table 2.

At each of December 31, 2020 and 2019, no current or former member of Executive Management or any related party of a current or former member of Executive Management had outstanding loans or credits from Chubb.

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (SWISS STATUTORY) COMPENSATION REPORT

Report of the statutory auditor on the compensation report
We have audited the accompanying compensation report of Chubb Limited for the year ended December 31, 2020. The audit was limited to the information according to articles 14-16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in the tables labeled "audited" on pages SC-4 to SC-5 of the compensation report.

Board of Directors' responsibility
The Board of Directors is responsible for the preparation and overall fair presentation of the compensation report in accordance with Swiss law and the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance). The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.

Auditor's responsibility
Our responsibility is to express an opinion on the accompanying compensation report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the compensation report complies with Swiss law and articles 14-16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the compensation report with regard to compensation, loans and credits in accordance with articles 14-16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the compensation report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of remuneration, as well as assessing the overall presentation of the compensation report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion
In our opinion, the compensation report of Chubb Limited for the year ended December 31, 2020 complies with Swiss law and articles 14-16 of the Ordinance.

PricewaterhouseCoopers AG

/s/ Peter Eberli
Peter Eberli

Audit expert
Auditor in charge

/s/ Nicolas Juillerat
Nicolas Juillerat

Audit expert

Zurich, March 24, 2021

SWISS STATUTORY BALANCE SHEETS (Unconsolidated)
Chubb Limited

(in millions of Swiss francs)	**December 31 2020**	December 31 2019
Assets		
Cash and cash equivalents	**75**	25
Prepaid expenses and other assets	**2**	6
Receivable from subsidiaries	**234**	74
Total current assets	**311**	105
Investments in subsidiaries	**33,242**	31,391
Loans to subsidiaries	**2,934**	4,485
Other assets	**8**	7
Total non-current assets	**36,184**	35,883
Total assets	**36,495**	35,988
Liabilities		
Accounts payable	**28**	69
Payable to subsidiaries	**498**	567
Capital distribution payable	**316**	334
Deferred unrealized exchange gain	**2**	—
Total short-term liabilities	**844**	970
Total liabilities	**844**	970
Shareholders' equity		
Share capital	**11,534**	11,587
Statutory capital reserves:		
Capital contribution reserves	**9,458**	10,841
Reserve for dividends from capital contributions	**1,171**	1,092
Reserves for treasury shares	**3,046**	3,346
Treasury shares	**(486)**	(334)
Statutory retained earnings:		
Retained earnings	**8,507**	8,151
Profit for the period	**2,421**	335
Total shareholders' equity	**35,651**	35,018
Total liabilities and shareholders' equity	**36,495**	35,988

The accompanying notes form an integral part of these statutory financial statements

SWISS STATUTORY STATEMENTS OF INCOME (Unconsolidated)

Chubb Limited

For the years ended December 31, 2020 and 2019

(in millions of Swiss francs)	2020	2019
Dividend income	**2,497**	199
Interest income from subsidiaries	**128**	249
Debt guarantee fee income	**39**	36
Interest expense to subsidiaries	**—**	(7)
Administrative and other expenses	**(88)**	(102)
Foreign exchange gains/(losses)	**15**	(17)
Operating results	**2,591**	358
Interest (expense) income third party only	**(1)**	1
Foreign exchange translation losses	**(144)**	(10)
Earnings before taxes	**2,446**	349
Tax expense	**(25)**	(14)
Profit for the year	**2,421**	335

The accompanying notes form an integral part of these statutory financial statements

1. Basis of presentation

Chubb Limited (Chubb), domiciled in Zurich, Switzerland, is the holding company of Chubb Group (Group) with a listing on the New York Stock Exchange (NYSE). Chubb's principal activity is the holding of subsidiaries. Revenues consist mainly of dividend and interest income. The accompanying financial statements comply with Swiss Law. The financial statements present the financial position of the holding company on a standalone basis and do not represent the consolidated financial position of the holding company and its subsidiaries.

The financial statements have been prepared in accordance with the provisions of commercial accounting as set out in the Swiss Code of Obligations (Art. 957 to 963b CO, effective since January 1, 2013).

All amounts in the notes are shown in millions of Swiss francs unless otherwise stated.

2. Significant accounting policies

a) Cash and cash equivalents

Cash and cash equivalents includes cash on hand and deposits with an original maturity of three months or less at time of purchase.

Chubb and certain of its subsidiaries (participating entities) have agreements with a third-party bank provider which implemented two international multi-currency notional cash pooling programs. In each program, participating entities establish deposit accounts in different currencies with the bank provider and each day the credit or debit balances in every account are notionally translated into a single currency (U.S. dollars) and then notionally pooled. Participants of the notional pool either pay or receive interest from the third-party bank provider. The bank extends overdraft credit to any participating entity as needed, provided that the overall notionally-pooled balance of all accounts in each pool at the end of each day is at least zero. Actual cash balances are not physically converted and are not commingled between legal entities. Any overdraft balances incurred under this program by a participating entity would be guaranteed by Chubb up to CHF 266 million ($300 million) in the aggregate. Our syndicated letter of credit facility allows for same day drawings to fund a net pool overdraft should participating entities withdraw contributed funds from the pool.

b) Investments in subsidiaries

Investments in subsidiaries are equity interests, which are held on a long-term basis for the purpose of the holding company's business activities. They are carried at a value no higher than their cost less adjustments for impairment. An impairment analysis of the investments in subsidiaries is performed on an annual basis.

c) Translation of foreign currencies

The financial statements are translated from U.S. dollar into Swiss francs using the following exchange rates:

- Investments in subsidiaries at historical exchange rates;
- Other assets and liabilities at period end exchange rates;
- Treasury shares and shareholders' equity at historical exchange rates; and
- Revenues and expenses at average exchange rates (where approximatively accurate), otherwise at transaction date exchange rates

Exchange losses are recorded in the statement of income and unrealized exchange gains are recorded on the balance sheet and deferred until realized.

d) Dividend income

Chubb collects dividend income from its direct subsidiaries.

e) Interest income (expense) from subsidiaries

Chubb collects interest income from loans issued to its subsidiaries which are reflected within operating income. Additionally, Chubb either collects or pays interest related to a reciprocal line of credit with one of its subsidiaries.

f) Debt guarantee fee income

Chubb collects a fee for Chubb's guarantee of the debt issued by one of its subsidiaries.

3. Commitments, contingencies, and guarantees

a) Letters of credit (LOC)
Chubb has access to capital markets and credit facilities with a letter of credit capacity of CHF 3.5 billion ($4.0 billion) with a sub-limit of CHF $1.7 billion ($1.9 billion) for revolving credit. Chubb's existing credit facilities have remaining terms expiring through October 2022. Chubb's LOC usage was CHF 1.5 billion ($1.7 billion) and CHF 548 million ($567 million) for the years ended December 31, 2020 and 2019, respectively. The letter of credit facility required that Chubb maintains certain financial covenants, all of which were met at December 31, 2020.

b) Lease commitments
Chubb leases property under an operating lease which expires in 2023. The following table presents future annual minimum lease payments as of December 31, 2020.

Year ending December 31 *(in millions of Swiss francs)*	
2021	1.5
2022	1.5
2023	1.1
Thereafter	—
Total minimum future lease commitments	4.1

At December 31, 2019, the total minimum future lease commitments were CHF 5.6 million.

c) Guarantee of debt
Chubb fully and unconditionally guarantees certain subsidiary debt totaling CHF 13.5 billion ($15.3 billion) and CHF 14.7 billion ($15.2 billion) at December 31, 2020 and 2019, respectively, and receives a fee.

4. Significant investments

a) Share capital:
The following table presents information regarding share capital held of subsidiaries at both December 31, 2020 and 2019. Amounts are expressed in whole U.S. dollars or Swiss francs.

Holdings as of December 31, 2020 and 2019	Country	% of Possession	Currency	Share Capital	Purpose
Chubb Group Holdings, Inc.	U.S.A.	100 %	USD	11	Holding company
Chubb INA Holdings, Inc.	U.S.A.	20 %	USD	1	Holding company
Chubb Insurance (Switzerland) Limited	Switzerland	100 %	CHF	100,000,000	Insurance company
Chubb Reinsurance (Switzerland) Limited	Switzerland	100 %	CHF	44,000,000	Reinsurance company
Chubb Group Management and Holdings Ltd.	Bermuda	100 %	USD	100	Holding company

b) Investments in subsidiaries:
The following table presents information regarding investments in subsidiaries at both December 31, 2020 and 2019. Investments in subsidiaries increased CHF 1.9 billion ($1.9 billion) in 2020 due to capital contributions primarily to fund investments and other subsidiary holding company obligations.

(in millions of Swiss francs)	**2020**	2019
Chubb Group Holdings, Inc.	**17,004**	17,004
Chubb INA Holdings, Inc.	**2,043**	2,043
Chubb Group Management Holdings Ltd.	**13,768**	11,916
Chubb Insurance (Switzerland) Limited	**185**	185
Chubb Reinsurance (Switzerland) Limited	**242**	242
Balance - end of year	**33,242**	31,391

5. Common Share ownership of the Board of Directors and Group Executives

a) Board of Directors

The following table presents information, at December 31, 2020 and 2019, with respect to the ownership of Common Shares by each member of the Board of Directors. Unless otherwise indicated, the named individual has sole voting and investment power over the Common Shares listed in the Common Shares Beneficially Owned column. Common Share ownership of Evan G. Greenberg, the Chairman of the Board, is included in Note 5 b) below.

Name of Beneficial Owner	Year	Common Shares Beneficially Owned	Restricted Stock Units [1]	Restricted Common Stock [2]
Michael G. Atieh [3]	**2020**	**3,501**	**36,115**	**1,721**
	2019	1,727	35,269	1,236
Sheila P. Burke	**2020**	**3,954**	**39,598**	**1,721**
	2019	3,027	39,346	1,236
James Cash	**2020**	**3,756**	**19,465**	**1,721**
	2019	2,829	19,385	1,236
Mary A. Cirillo	**2020**	**23,740**	**15,038**	**3,107**
	2019	22,067	14,685	2,231
Michael P. Connors	**2020**	**12,989**	—	**1,721**
	2019	12,062	—	1,236
John A. Edwardson	**2020**	**10,014**	—	**2,916**
	2019	8,444	—	2,094
Robert M. Hernandez	**2020**	**—**	**—**	**—**
	2019	63,292	25,771	1,236
Robert J. Hugin [4]	**2020**	**10,335**	—	**2,916**
	2019	—	—	—
Kimberly A. Ross	**2020**	—	**—**	**—**
	2019	7,807	—	1,236
Robert W. Scully [5]	**2020**	**40,364**	**—**	**3,251**
	2019	28,864	—	2,334
Eugene B. Shanks, Jr.	**2020**	**10,079**	**—**	**1,721**
	2019	9,152	—	1,236
Theodore E. Shasta	**2020**	**14,017**	**—**	**1,721**
	2019	11,139	—	1,236
David H. Sidwell	**2020**	**9,860**	**—**	**1,721**
	2019	8,933	—	1,236
Olivier Steimer	**2020**	**17,649**	**3,643**	**1,721**
	2019	16,498	3,558	1,236
Frances F. Townsend	**2020**	—	**—**	**1,721**
	2019	—	—	—
Total	**2020**	**160,258**	**113,859**	**27,679**
	2019	195,841	138,014	19,019

(1) Represents Common Shares that will be issued to the director upon his or her separation from the Board. These Common Shares relate to stock units granted as director's compensation prior to 2008 and associated dividend reinvestment accruals.

For Ms. Burke and Mr. Cash includes deferred stock units and market value units granted prior to the merger that will settle following separation from service. The market value units include dividend reinvestment accruals.

(2) Represents Common Shares with respect to which the individual has the power to vote (but not to dispose of).

(3) Common Shares beneficially owned includes 847 shares held by a family foundation. Mr. Atieh has no pecuniary interest in these shares.

(4) Includes 335 shares held by Mr. Hugin's sons, of which Mr. Hugin disclaims beneficial ownership.

(5) Includes 2,775 shares held by Mr. Scully's daughter, of which Mr. Scully disclaims beneficial ownership.

b) Group Executives

The following table presents information, at December 31, 2020 and 2019, with respect to the beneficial ownership of Common Shares by each of the following Group Executives. Unless otherwise indicated, the named individual has sole voting and investment power over the Common Shares listed in the Common Shares Beneficially Owned column.

Name of Beneficial Owner	*Year*	Common Shares Beneficially Owned	Common Shares Subject to Options [1]	Weighted Average Option Exercise Price in CHF	Option Exercise Years	Restricted Common Stock [2]
Evan G. Greenberg [3] [4]	**2020**	**761,463**	**819,566**	**103.26**	**4.37**	**148,653**
	2019	675,056	865,583	98.83	4.33	193,616
Philip V. Bancroft [5]	**2020**	**197,471**	**111,264**	**115.11**	**5.48**	**24,930**
	2019	172,465	96,832	117.18	5.89	33,791
John W. Keogh [6]	**2020**	**166,136**	**221,635**	**112.15**	**5.21**	**67,309**
	2019	118,958	213,551	110.38	5.32	86,865
Joseph Wayland	**2020**	**37,263**	**72,018**	**119.31**	**5.90**	**24,148**
	2019	23,232	59,350	123.14	6.41	30,519
Total	**2020**	**1,162,333**	**1,224,483**			**265,040**
	2019	989,711	1,235,316			344,791

(1) Represents Common Shares that the individual has the right to acquire within 60 days of December 31, 2020 and 2019, through option exercises, both vested and unvested.

(2) Represents Common Shares with respect to which the individual has the power to vote (but not to dispose of).

(3) *Mr. Greenberg shares with other persons the power to vote and/or dispose of 72,085 and 97,528 of the Common Shares listed at December 31, 2020 and 2019, respectively.*

(4) *Mr. Greenberg pledged 240,000 Common Shares Beneficially Owned in connection with a margin account at December 31, 2020 and 2019.*

(5) Mr. Bancroft pledged 41,000 Common Shares Beneficially Owned in connection with a margin account at December 31, 2020 and 2019

(6) Mr. Keogh shares with other persons the power to vote and/or dispose of 7,978 of the Common Shares listed at December 31, 2020 and 2019.

6. Shareholders' equity

The following table presents issued, authorized, and conditional share capital, at December 31, 2020 and 2019. Treasury shares held by Chubb which are issued, but not outstanding totaled 3,606,053 and 2,200,503 shares for the periods ending December 31, 2020 and 2019, respectively. In addition to the treasury shares held by Chubb, subsidiaries of Chubb held 23,266,586 treasury shares at a cost of CHF 3.0 billion ($3.1 billion) and 25,611,794 treasury shares at a cost of CHF 3.3 billion ($3.4 billion), for the periods ending December 31, 2020 and 2019, respectively.

	Year ended December 31	
	2020	2019
Shares Issued	**477,605,264**	479,783,864
Authorized share capital for general purposes	**200,000,000**	200,000,000
Conditional share capital for bonds and similar debt instruments	**33,000,000**	33,000,000
Conditional share capital for employee benefit plans	**25,410,929**	25,410,929

a) Shares authorized and issued

All Common Shares are authorized under Swiss Corporate law. Chubb's share capital consisted of 477,605,264 and 479,783,864 Common Shares, with a par value of CHF 24.15 per share for the period ending December 31, 2020 and 2019, respectively. The Board has shareholder-approved authority as set forth in the Articles of Association to increase for general purposes Chubb's share capital from time to time until May 20, 2022, by the issuance of up to 200,000,000 fully paid up Common Shares with a par value equal to the par value of Chubb's Common Shares as set forth in the Articles of Association at the time of any such issuance.

b) Conditional share capital

(i) Conditional share capital for bonds and similar debt instruments

At both December 31, 2020 and 2019, the share capital of Chubb was authorized to be increased through the issuance of a maximum of 33,000,000 fully paid up shares each with a par value of CHF 24.15 per share through the exercise of conversion and/or option or warrant rights granted in connection with bonds, notes, or similar instruments, issued or to be issued by Chubb, including convertible debt instruments.

(ii) Conditional share capital for employee benefit plans

At both December 31, 2020 and 2019, the share capital of Chubb was authorized to be increased through the issuance of a maximum of 25,410,929 fully paid up shares each with a par value of CHF 24.15 per share in connection with the exercise of option rights granted to any employee of Chubb or a subsidiary, and any consultant, director, or other person providing services to Chubb or a subsidiary.

c) Capital contribution reserves

At our May 2019 annual general meetings, our shareholders approved an annual dividend for the following year of up to $3.00 per share, expected to be paid in four quarterly installments of $0.75 per share at dates determined by the Board of Directors (Board) after the annual general meeting by way of a distribution from capital contribution reserves, transferred to free reserves for payment.

At our May 2020 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.12 per share, expected to be paid in four quarterly installments of $0.78 per share after the annual general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment. The Board will determine the record and payment dates at which the annual dividend may be paid until the date of the 2021 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion. The first three quarterly installments each of $0.78 per share have been distributed by the Board as expected.

The following table presents dividend distributions per Common Share in Swiss francs (CHF) and U.S. dollars (USD) for the years ended December 31, 2020 and 2019:

	2020		2019	
	CHF	**USD**	CHF	USD
Dividends - distributed from Capital contribution reserves	**2.89**	**$ 3.09**	2.94	$ 2.98
Total dividend distributions per common share	**2.89**	**$ 3.09**	2.94	$ 2.98

d) Treasury Shares - Reserve for Treasury Shares

Treasury shares held by Chubb are carried at cost. At our May 2020 annual general meeting, our shareholders approved the cancellation of 2,178,600 shares purchased under our share repurchase program during the period beginning September 23, 2019 and ending December 31, 2019. The capital reduction by cancellation of shares was subject to publication requirements and a two-month waiting period in accordance with Swiss law and became effective August 3, 2020. The following table presents a roll-forward of treasury shares held by Chubb for the years ended December 31, 2020 and 2019:

	2020		2019	
(cost in millions of Swiss francs)	**Number of Shares**	**Cost**	Number of Shares	Cost
Balance – beginning of year	**2,200,503**	**334**	21,902	2
Repurchase of shares	**3,584,150**	**484**	2,178,601	332
Cancellation of shares	**(2,178,600)**	**(332)**	—	—
Balance – end of year	**3,606,053**	**486**	2,200,503	334

Treasury shares held by Chubb subsidiaries are carried cost. The following table presents a roll-forward of treasury shares held by Chubb subsidiaries for the years ended December 31, 2020 and 2019:

	2020		2019	
(cost in millions of Swiss francs)	**Number of Shares**	**Cost**	Number of Shares	Cost
Balance – beginning of year	**25,611,794**	**3,346**	20,558,584	2,538
Purchase of shares	**—**	**—**	8,263,637	1,189
Additions related to share-based compensation plans	**814,043**	**104**	744,405	101
Redeemed under share-based compensation plans	**(3,159,251)**	**(405)**	(3,954,832)	(482)
Balance – end of year	**23,266,586**	**3,046**	25,611,794	3,346

Decreases in treasury shares held by Chubb and its subsidiaries are principally due to issuances of shares upon the exercise of employee stock options, grants of restricted stock, and purchases under the Employee Stock Purchase Plan (ESPP). Increases in treasury shares are due to open market repurchases of shares and the surrender of shares to satisfy tax withholding obligations in connection with the vesting of restricted stock and the forfeiture of unvested restricted stock.

e) Movements in Statutory Retained earnings

	Year ended December 31	
(in millions of Swiss francs)	**2020**	2019
Balance – beginning of year	**8,486**	8,959
Attribution to / release reserve for treasury shares	**301**	(808)
Cancellation of treasury shares	**(280)**	—
Profit for the year	**2,421**	335
Balance – end of year	**10,928**	8,486

f) Chubb securities repurchase authorization

From time to time, Chubb repurchases shares as part of our capital management program and to partially offset potential dilution from the exercise of stock options and the granting of restricted stock under share-based compensation plans. Our Board of Directors has authorized share repurchase programs as follows:

- $1.5 billion of Chubb Common Shares from December 1, 2018 through December 31, 2019
- $1.5 billion of Chubb Common Shares from November 21, 2019 through December 31, 2020
- $1.5 billion of Chubb Common Shares from November 19, 2020 through December 31, 2021

Subsequently, 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.

Share repurchases may be in the open market, in privately negotiated transactions, block trades, accelerated repurchases and/or through option or other forward transactions.

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

	Year ended December 31	
(in millions of Swiss francs)	**2020**	2019
Number of shares repurchased	**3,584,150**	10,442,238
Cost of shares repurchased	**484**	1,521

g) General restrictions
Holders of Common Shares are entitled to receive dividends as proposed by the Board and approved by the shareholders. Holders of Common Shares are allowed one vote per share provided that, if the controlled shares of any shareholder constitute ten percent or more of the outstanding Common Shares of Chubb, only a fraction of the vote will be allowed so as not to exceed ten percent. Entry of acquirers of Common Shares as shareholders with voting rights in the share register may be refused if it would confer voting rights with respect to ten percent or more of the registered share capital recorded in the commercial register.

7. Significant shareholders

The following table presents information regarding each person, including corporate groups, known to Chubb to own beneficially or of record more than five percent of Chubb's outstanding Common Shares at December 31, 2020 and December 31, 2019.

	2020		2019	
Name of Beneficial Owner	**Number of Shares Beneficially Owned**	**Percent of Class**	Number of Shares Beneficially Owned	Percent of Class
Vanguard Group, Inc.	**35,934,796**	**7.97 %**	37,653,064	8.30 %
BlackRock, Inc.	**29,455,172**	**6.53 %**	32,602,335	7.20 %
Wellington Management Group, LLP	**27,670,712**	**6.14 %**	27,825,114	6.14 %
T. Rowe Price Associates, Inc.	**23,852,906**	**5.29 %**	23,375,803	5.10 %
Capital International Investors	**23,360,900**	**5.18 %**	*	*

* Represented less than five percent

8. Other disclosures required by Swiss law

a) Expenses
Total personnel expenses amounted to CHF 9.7 million and CHF 10.1 million for the years ended December 31, 2020 and 2019, respectively. The number of full-time positions on an annual average was no more than 50 for years ended December 31, 2020 and 2019.

Total amortization expense related to tangible property amounted to CHF 0.1 million and less than CHF 0.1 million for the years ended December 31, 2020 and 2019, respectively.

b) Fees paid to auditors
Fees paid to auditors by Chubb Limited totaled CHF 3.7 million and CHF 4.5 million for the years ended December 31, 2020 and 2019, respectively. An allocation of audit fees for professional services rendered in connection with the integrated audit of our consolidated financial statements and internal controls over financial reporting and audit fees for the standalone Swiss statutory financial statements totaled CHF 3.5 million and CHF 4.1 million for the years ended December 31, 2020 and 2019, respectively. Tax fees totaled CHF 0.2 million and CHF 0.3 million for the years ended December 31, 2020 and 2019, respectively.

c) Loans to subsidiaries

The following table presents information regarding loans to subsidiaries at December 31, 2020 and 2019. Loans to Chubb Group Holdings decreased CHF 1.7 billion primarily due to principal repayments in 2020.

(in millions of Swiss francs)	2020	2019
Loans to Chubb Group Holdings, Inc.	**2,522**	4,203
Loans to INA Holdings, Inc.	**137**	—
Loans to Chubb INA International Holdings Ltd., Agencia en Chile	**275**	282
Total loans to subsidiaries	**2,934**	4,485

d) Receivables from subsidiaries

The following table presents information regarding receivables from subsidiaries at December 31, 2020 and 2019.

(in millions of Swiss francs)	2020	2019
Receivables from Chubb Group Holdings, Inc.	**53**	73
Receivables from Chubb Group Management and Holdings, Ltd.	**181**	1
Total receivables from subsidiaries	**234**	74

e) Payable to subsidiaries

The following table presents information regarding payables to subsidiaries at December 31, 2020 and 2019, respectively.

(in millions of Swiss francs)	2020	2019
Payable to Chubb Group Holdings, Inc.	**391**	393
Payable to INA Holdings, Inc.	**—**	78
Payable to Chubb Group Management and Holdings, Ltd.	**105**	96
Payable to Chubb Insurance (Switzerland) Ltd.	**2**	—
Total payable to subsidiaries	**498**	567

PROPOSED APPROPRIATION OF AVAILABLE EARNINGS

Chubb Limited

Proposed appropriation of available earnings

Our Board of Directors proposes to the Annual General Meeting that the Company's disposable profit (including the net income and the other items as shown below) be carried forward. The following table shows the appropriation of available earnings as proposed by the Board of Directors for the year ended December 31, 2020.

(in millions of Swiss francs)	**2020**	2019
Balance brought forward	**8,486**	8,959
Profit for the year	**2,421**	335
Cancellation of treasury shares	**(280)**	—
Attribution to reserve for treasury shares	**301**	(808)
Balance carried forward	**10,928**	8,486

In order to pay dividends, our Board of Directors proposes that an aggregate amount equal to CHF 2.2 billion be released from the capital contribution reserves account in 2021 and allocated to a segregated reserve for dividends account (the "Dividend Reserve"). The Board proposes to distribute a dividend to the shareholders up to an aggregate amount totaling $3.20 per Common Share from, and limited at a maximum to the amount of, the Dividend Reserve in one or more installments, in such amounts and on such record and payment dates as determined by the Board in its discretion. If the Board deems it advisable for the Company, the Board shall be authorized to abstain (in whole or in part) from distributing a dividend in its discretion. The authorization of the Board to distribute the installments from the Dividend Reserve will expire on the date of the 2022 annual general meeting, on which date any balance remaining in the Dividend Reserve will be automatically reallocated to the capital contribution reserves account.

If the Annual General Meeting approves this proposal, our Board currently intends to distribute the dividend in four equal installments of $0.80 each, on record dates at about the end of June, September, December and March, respectively, with payment dates about 21 days thereafter.

At December 31, 2020, 450,732,625 of the Company's Common Shares were eligible for dividends.

At the 2020 annual general meeting, the Company's shareholders approved an aggregate annual dividend by way of a distribution from Capital contribution reserves, transferred to free reserves at the time of payment in 2020 totaling $3.12 per Common Share. The annual dividend was payable in four installments, each denominated in CHF but adjusted appropriately so that the U.S. dollar value of the installment remained at $0.78. The installments were subject to a dividend cap expressed in CHF which was not reached for 2020.

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (SWISS STATUTORY) FINANCIAL STATEMENTS

Report of the statutory auditor on the financial statements
As statutory auditor, we have audited the accompanying financial statements of Chubb Limited, which comprise the balance sheet as at December 31, 2020, the statement of income and notes (pages S-2 to S-12) for the year then ended.

Board of Directors' responsibility
The Board of Directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the company's articles of association. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements for the year ended December 31, 2020 comply with Swiss law and the company's articles of association.

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority
Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Investments in subsidiaries

Key audit matter	How our audit addressed the key audit matter
As set out in the balance sheet and at footnote 4, the Company owns five direct subsidiaries as at December 31, 2020 with a total book value of CHF 33.2 billion, representing 91% of the Company's total assets. We focused on this area due to the size of the investments in subsidiaries relative to the total assets, and the fact that there is judgment involved in assessing whether the carrying values of the investments in subsidiaries were impaired. The Swiss accounting law generally requires an individual impairment test at the investment or unit of account level.	We obtained an understanding of management's process and controls, and assessed and tested the design and operating effectiveness of a selected key control over the recoverability of the carrying value of investments in subsidiaries. In relation to the particular matters set out opposite, our testing procedures included the following: • We tested the Company's impairment analyses performed for the five direct subsidiaries. The assessment of potential impairment indicators included as a first step the comparison of the recorded Swiss statutory carrying value with the net asset value of each subsidiary. In case the net asset value was smaller than the carrying value, a secondary, more judgmental, step was followed using additional valuation techniques, such as a value-in-use assessment, to assess whether there was any potential need for impairment. • Where a value-in-use metric was used, we challenged management as to whether the input data and assumptions to their model were reliable and reasonable. The most important parameters were underwriting income, investment income and operating expenses. Based on the work performed we consider management's impairment analyses including the assumptions used to support the carrying value of investments in subsidiaries as reasonable.

Report on other legal requirements
We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (SWISS STATUTORY) FINANCIAL STATEMENTS (continued)

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of association. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG

/s/ Peter Eberli
Peter Eberli

Audit expert
Auditor in charge

/s/ Nicolas Juillerat
Nicolas Juillerat

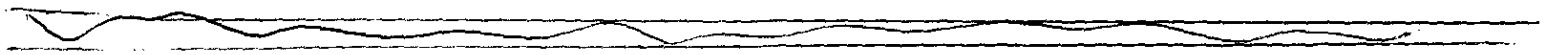
Audit expert

Zurich, March 1, 2021

CHUBB LIMITED

SWISS STATUTORY FINANCIAL STATEMENTS

December 31, 2020



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REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (US GAAP) CONSOLIDATED FINANCIAL STATEMENTS (continued)

Valuation of Level 3 Investments in the Valuation Hierarchy

Key audit matter	How our audit addressed the key audit matter
As described in Note 4 to the consolidated financial statements, as of December 31, 2020, the Company had total assets measured at fair value of approximately $106 billion, of which $2 billion were categorized as level 3 in the valuation hierarchy. The level 3 investments are measured at fair value using inputs that are unobservable and reflect management's judgments about assumptions that market participants would use in pricing or, for certain of the investments, management obtains and evaluates a single broker quote, which is typically from a market maker. As described by management, the valuation is more subjective when markets are less liquid due to the lack of market based inputs (i.e., stale pricing), which may increase the potential that an investment's estimated fair value is not reflective of the price at which an actual transaction would occur. The principal considerations for our determination that performing procedures relating to the valuation of level 3 investments in the valuation hierarchy is a key audit matter are (i) the significant judgment by management in determining the fair value of these investments as they are measured using inputs that are unobservable and are likely to be priced using models or inputs other than quoted prices, which in turn led to a high degree of auditor subjectivity and judgment in performing procedures relating to the estimate; and (ii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.	Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of the controls relating to the valuation of level 3 investments. These procedures also included, among others, obtaining pricing from sources other than those used by management for a sample of securities and comparing management's estimate to the prices independently obtained, and the involvement of professionals with specialized skill and knowledge to assist in developing an independent range of prices for a sample of securities and comparing management's estimate to the independently developed ranges.

Report on other legal requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG

/s/ Peter Eberli
Peter Eberli
Audit expert
Auditor in charge

/s/ Nicolas Juillerat
Nicolas Juillerat
Audit expert

Zurich, February 25, 2021

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of Unpaid Losses and Loss Expenses, Net of Reinsurance

Key audit matter	How our audit addressed the key audit matter
As described in Note 7 to the consolidated financial statements, as of December 31, 2020, the Company's liability for unpaid losses and loss expenses, net of reinsurance, was approximately $53 billion. The majority of the Company's net unpaid losses and loss expenses arise from the Company's long-tail casualty business (such as general liability and professional liability), U.S. sourced workers' compensation, asbestos-related, environmental pollution and other exposures with high estimation uncertainty. The process of establishing loss reserves requires the use of estimates and judgments based on circumstances underlying the insured loss at the date of accrual. The judgments involved in projecting the ultimate losses include the use and interpretation of various standard actuarial reserving methods that place reliance on the extrapolation of actual historical data, loss development patterns, industry data, and other benchmarks as appropriate. The reserves for the various product lines each require different qualitative and quantitative assumptions and judgments, including changes in business mix or volume, changes in ceded reinsurance structures, changes in claims handling practices, reported and projected loss trends, inflation, the legal environment, and the terms and conditions of the contracts sold to the Company's insured parties. The principal considerations for our determination that performing procedures relating to the valuation of unpaid losses and loss expenses, net of reinsurance, from the long-tail and other exposures as described above, is a key audit matter are (i) the significant judgment by management in determining the reserve liability, which in turn led to a high degree of auditor subjectivity and judgment in performing procedures relating to the valuation; (ii) the significant audit effort and judgment in evaluating the audit evidence relating to the actuarial reserving methods and assumptions related to extrapolation of actual historical data, loss development patterns, industry data, other benchmarks, and the impact of qualitative and quantitative subjective factors; and (iii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.	Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the Company's valuation of unpaid losses and loss expenses, net of reinsurance, including controls over the selection of actuarial methodologies and development of significant assumptions. These procedures also included, among others, the involvement of professionals with specialized skill and knowledge to assist in performing one or a combination of procedures, including (i) independently estimating reserves on a sample basis using actual historical data and loss development patterns, as well as industry data and other benchmarks, to develop an independent estimate and comparing the independent estimate to management's actuarially determined reserves; and (ii) evaluating management's actuarial reserving methodologies and aforementioned assumptions, as well as assessing qualitative adjustments to carried reserves and the consistency of management's approach period-over-period. Performing these procedures involved testing the completeness and accuracy of data provided by management.

REPORT OF THE STATUTORY AUDITOR TO THE GENERAL MEETING OF CHUBB LIMITED, ZURICH ON THE (US GAAP) CONSOLIDATED FINANCIAL STATEMENTS

Report of the statutory auditor on the consolidated financial statements
As statutory auditor, we have audited the accompanying consolidated financial statements of Chubb Limited and its subsidiaries (the Company), which comprise the consolidated balance sheet as of December 31, 2020, and the consolidated statement of operations and comprehensive income, consolidated statement of shareholders' equity, and consolidated statement of cash flows for the year then ended, and the related notes to the consolidated financial statements (pages F-7 to F-103).

Board of Directors' responsibility
The Board of Directors is responsible for the preparation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (US GAAP) and the requirements of Swiss law. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020, and the results of its operations and its cash flows for the year then ended in accordance with US GAAP and comply with Swiss law.

SCHEDULE VI

Chubb Limited and Subsidiaries

SUPPLEMENTARY INFORMATION CONCERNING PROPERTY AND CASUALTY OPERATIONS

As of and for the years ended December 31, 2020, 2019, and 2018 (in millions of U.S. dollars)

	Deferred Policy Acquisition Costs	Net Reserves for Unpaid Losses and Loss Expenses	Unearned Premiums	Net Premiums Earned	Net Investment Income	Net Losses and Loss Expenses Incurred Related to		Amortization of Deferred Policy Acquisition Costs	Net Paid Losses and Loss Expenses	Net Premiums Written
						Current Year	Prior Year			
2020	**$ 4,244**	**$ 53,164**	**$ 17,652**	**$ 31,800**	**$ 3,074**	**$ 22,124**	**$ (414)**	**$ 6,076**	**$ 17,434**	**$ 32,471**
2019	$ 4,161	$ 48,509	$ 16,771	$ 30,189	$ 3,141	$ 19,575	$ (845)	$ 5,831	$ 18,473	$ 31,126
2018	$ 3,926	$ 48,271	$ 15,532	$ 29,042	$ 3,047	$ 19,048	$ (981)	$ 5,630	$ 18,340	$ 29,505

SCHEDULE IV

Chubb Limited and Subsidiaries

SUPPLEMENTAL INFORMATION CONCERNING REINSURANCE

Premiums Earned

For the years ended December 31, 2020, 2019, and 2018 (in millions of U.S. dollars, except for percentages)	Direct Amount	Ceded To Other Companies	Assumed From Other Companies	Net Amount	Percentage of Amount Assumed to Net
2020					
Property and Casualty	**$ 31,546**	**$ 6,782**	**$ 3,044**	**$ 27,808**	**11 %**
Accident and Health	**4,249**	**368**	**111**	**3,992**	**3 %**
Life	**1,242**	**93**	**168**	**1,317**	**13 %**
Total	**$ 37,037**	**$ 7,243**	**$ 3,323**	**$ 33,117**	**10 %**
2019					
Property and Casualty	$ 30,339	$ 7,236	$ 2,797	$ 25,900	11 %
Accident and Health	4,546	376	119	4,289	3 %
Life	991	81	191	1,101	17 %
Total	$ 35,876	$ 7,693	$ 3,107	$ 31,290	10 %
2018					
Property and Casualty	$ 28,793	$ 6,792	$ 2,812	$ 24,813	11 %
Accident and Health	4,409	342	162	4,229	4 %
Life	906	85	201	1,022	20 %
Total	$ 34,108	$ 7,219	$ 3,175	$ 30,064	11 %

SCHEDULE II (continued)

Chubb Limited and Subsidiaries

CONDENSED FINANCIAL INFORMATION OF REGISTRANT

STATEMENTS OF OPERATIONS (Parent Company Only)

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Revenues			
Investment income [1]	**$ 155**	$ 227	$ 305
Equity in net income of subsidiaries and affiliates	**3,457**	4,307	3,753
	3,612	4,534	4,058
Expenses			
Administrative and other (income) expense	**55**	65	63
Chubb integration expenses	**—**	1	14
Income tax expense	**24**	14	19
	79	80	96
Net income	**$ 3,533**	$ 4,454	$ 3,962
Comprehensive income	**$ 5,783**	$ 7,521	$ 1,242

[1] Includes net investment income, interest income, and net realized gains (losses).

The condensed financial information should be read in conjunction with the Consolidated Financial Statements and notes thereto.

STATEMENTS OF CASH FLOWS (Parent Company Only)

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Net cash flows from operating activities [1]	**$ 1,933**	$ 412	$ 256
Cash flows from investing activities			
Capital contribution	**(1,200)**	(1,000)	(1,475)
Other	**(2)**	—	—
Net cash flows used for investing activities	**(1,202)**	(1,000)	(1,475)
Cash flows from financing activities			
Dividends paid on Common Shares	**(1,388)**	(1,354)	(1,337)
Common Shares repurchased	**(523)**	(327)	—
Advances from affiliates	**1,265**	2,301	2,519
Net proceeds from (payments to) affiliated notional cash pooling programs [2]	**—**	(35)	35
Net cash flows from (used for) financing activities	**(646)**	585	1,217
Effect of foreign currency rate changes on cash and restricted cash	**(3)**	4	—
Net increase (decrease) in cash and restricted cash	**82**	1	(2)
Cash and restricted cash – beginning of year	**2**	1	3
Cash and restricted cash – end of year	**$ 84**	$ 2	$ 1

[1] Includes cash dividends received from subsidiaries of $2.0 billion, $200 million, and $75 million in 2020, 2019, and 2018, respectively.

[2] Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information.

The condensed financial information should be read in conjunction with the Consolidated Financial Statements and notes thereto.

SCHEDULE II

Chubb Limited and Subsidiaries

CONDENSED FINANCIAL INFORMATION OF REGISTRANT

BALANCE SHEETS (Parent Company Only)

(in millions of U.S. dollars)		**December 31 2020**		December 31 2019
Assets				
Investments in subsidiaries and affiliates on equity basis	**$**	**56,148**	$	50,853
Total investments		**56,148**		50,853
Cash		**84**		2
Due from subsidiaries and affiliates, net		**3,522**		4,776
Other assets		**10**		12
Total assets	**$**	**59,764**	$	55,643
Liabilities				
Accounts payable, accrued expenses, and other liabilities	**$**	**323**	$	312
Total liabilities		**323**		312
Shareholders' equity				
Common Shares		**11,064**		11,121
Common Shares in treasury		**(3,644)**		(3,754)
Additional paid-in capital		**9,815**		11,203
Retained earnings		**39,337**		36,142
Accumulated other comprehensive income		**2,869**		619
Total shareholders' equity		**59,441**		55,331
Total liabilities and shareholders' equity	**$**	**59,764**	$	55,643

The condensed financial information should be read in conjunction with the Consolidated Financial Statements and notes thereto.

SCHEDULE I

Chubb Limited and Subsidiaries

SUMMARY OF INVESTMENTS – OTHER THAN INVESTMENTS IN RELATED PARTIES

December 31, 2020 (in millions of U.S. dollars)	Cost or Amortized Cost, Net [1]	Fair Value	Amount at Which Shown in the Balance Sheet
Fixed maturities available for sale			
U.S. Treasury / Agency	$ 2,471	$ 2,670	$ 2,670
Non-U.S.	24,588	26,354	26,354
Corporate and asset-backed securities	34,081	36,331	36,331
Mortgage-backed securities	17,456	18,470	18,470
Municipal	6,572	6,874	6,874
Total fixed maturities available for sale	85,168	90,699	90,699
Fixed maturities held to maturity			
U.S. Treasury / Agency	1,392	1,452	1,392
Non-U.S.	1,288	1,405	1,288
Corporate and asset-backed securities	2,150	2,438	2,150
Mortgage-backed securities	1,999	2,146	1,999
Municipal	4,824	5,069	4,824
Total fixed maturities held to maturity	11,653	12,510	11,653
Equity securities			
Industrial, miscellaneous, and all other	4,027	4,027	4,027
Short-term investments	4,349	4,345	4,345
Other investments [2]	7,826	7,826	7,826
Total investments - other than investments in related parties	$ 113,023	$ 119,407	$ 118,550

[1] Net of valuation allowance for expected credit losses.

[2] Excludes $119 million of related party investments.

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2018 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net cash flows from operating activities	$ 256	$ 4,654	$ 5,878	$ (5,308)	$ 5,480
Cash flows from investing activities					
Purchases of fixed maturities available for sale	—	(38)	(24,697)	—	(24,735)
Purchases of fixed maturities held to maturity	—	—	(456)	—	(456)
Purchases of equity securities	—	—	(207)	—	(207)
Sales of fixed maturities available for sale	—	11	14,019	—	14,030
Sales of equity securities	—	—	315	—	315
Maturities and redemptions of fixed maturities available for sale	—	17	7,335	—	7,352
Maturities and redemptions of fixed maturities held to maturity	—	—	1,124	—	1,124
Net change in short-term investments	—	3	513	—	516
Net derivative instruments settlements	—	(7)	23	—	16
Private equity contributions	—	—	(1,337)	—	(1,337)
Private equity distributions	—	—	980	—	980
Capital contribution	(1,475)	(3,550)	—	5,025	—
Other	—	(18)	(515)	—	(533)
Net cash flows used for investing activities	(1,475)	(3,582)	(2,903)	5,025	(2,935)
Cash flows from financing activities					
Dividends paid on Common Shares	(1,337)	—	—	—	(1,337)
Common Shares repurchased	—	—	(1,044)	—	(1,044)
Proceeds from issuance of long-term debt	—	2,171	—	—	2,171
Proceeds from issuance of repurchase agreements	—	—	2,029	—	2,029
Repayment of long-term debt	—	(2,000)	(1)	—	(2,001)
Repayment of repurchase agreements	—	—	(2,019)	—	(2,019)
Proceeds from share-based compensation plans	—	—	115	—	115
Advances (to) from affiliates	2,519	(1,744)	(775)	—	—
Dividends to parent company	—	—	(5,308)	5,308	—
Capital contribution	—	—	5,025	(5,025)	—
Net payments to affiliated notional cash pooling programs[1]	35	502	—	(537)	—
Policyholder contract deposits	—	—	453	—	453
Policyholder contract withdrawals	—	—	(358)	—	(358)
Net cash flows from (used for) financing activities	1,217	(1,071)	(1,883)	(254)	(1,991)
Effect of foreign currency rate changes on cash and restricted cash	—	—	(65)	—	(65)
Net increase (decrease) in cash and restricted cash	(2)	1	1,027	(537)	489
Cash and restricted cash – beginning of year[1]	3	1	962	(115)	851
Cash and restricted cash – end of year[1]	$ 1	$ 2	$ 1,989	$ (652)	$ 1,340

(1) Chubb maintains two notional multi-currency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information. At December 31, 2018 and 2017, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2019 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net cash flows from operating activities	$ 412	$ 2,926	$ 6,878	$ (3,874)	$ 6,342
Cash flows from investing activities					
Purchases of fixed maturities available for sale	—	(21)	(25,825)	—	(25,846)
Purchases of fixed maturities held to maturity	—	—	(229)	—	(229)
Purchases of equity securities	—	—	(531)	—	(531)
Sales of fixed maturities available for sale	—	1	13,115	—	13,116
Sales of equity securities	—	—	611	—	611
Maturities and redemptions of fixed maturities available for sale	—	41	8,998	—	9,039
Maturities and redemptions of fixed maturities held to maturity	—	—	946	—	946
Net change in short-term investments	—	(808)	(309)	—	(1,117)
Net derivative instruments settlements	—	(74)	(629)	—	(703)
Private equity contributions	—	—	(1,315)	—	(1,315)
Private equity distributions	—	—	1,390	—	1,390
Capital contribution	(1,000)	(110)	—	1,110	—
Acquisition of subsidiaries (net of cash acquired of $45)	—	—	(29)	—	(29)
Payment, including deposit, for Huatai Group interest	—	—	(580)	—	(580)
Other	—	(4)	(653)	—	(657)
Net cash flows used for investing activities	(1,000)	(975)	(5,040)	1,110	(5,905)
Cash flows from financing activities					
Dividends paid on Common Shares	(1,354)	—	—	—	(1,354)
Common Shares repurchased	(327)	—	(1,203)	—	(1,530)
Proceeds from issuance of long-term debt	—	2,828	—	—	2,828
Proceeds from issuance of repurchase agreements	—	—	2,817	—	2,817
Repayment of long-term debt	—	(500)	(10)	—	(510)
Repayment of repurchase agreements	—	—	(2,817)	—	(2,817)
Proceeds from share-based compensation plans	—	—	204	—	204
Advances (to) from affiliates	2,301	(3,223)	922	—	—
Dividends to parent company	—	—	(3,874)	3,874	—
Capital contribution	—	—	1,110	(1,110)	—
Net proceeds payments to affiliated notional cash pooling programs[1]	(35)	(617)	—	652	—
Policyholder contract deposits	—	—	514	—	514
Policyholder contract withdrawals	—	—	(303)	—	(303)
Net cash flows from (used for) financing activities	585	(1,512)	(2,640)	3,416	(151)
Effect of foreign currency rate changes on cash and restricted cash	4	1	15	—	20
Net increase (decrease) in cash and restricted cash	1	440	(787)	652	306
Cash and restricted cash – beginning of year	1	2	1,989	(652)	1,340
Cash and restricted cash – end of year[1]	$ 2	$ 442	$ 1,202	$ —	$ 1,646

(1) Chubb maintains two notional multi-currency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information. At December 31, 2018, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2020 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net cash flows from operating activities	**$ 1,933**	**$ 274**	**$ 10,788**	**$ (3,210)**	**$ 9,785**
Cash flows from investing activities					
Purchases of fixed maturities available for sale	**—**	**(49)**	**(26,249)**	**—**	**(26,298)**
Purchases of fixed maturities held to maturity	**—**	**—**	**(202)**	**—**	**(202)**
Purchases of equity securities	**—**	**—**	**(6,419)**	**—**	**(6,419)**
Sales of fixed maturities available for sale	**—**	**9**	**11,368**	**—**	**11,377**
Sales of equity securities	**—**	**—**	**3,880**	**—**	**3,880**
Maturities and redemptions of fixed maturities available for sale	**—**	**50**	**12,400**	**—**	**12,450**
Maturities and redemptions of fixed maturities held to maturity	**—**	**—**	**995**	**—**	**995**
Net change in short-term investments	**—**	**772**	**(853)**	**—**	**(81)**
Net derivative instruments settlements	**—**	**55**	**(168)**	**—**	**(113)**
Private equity contributions	**—**	**—**	**(1,924)**	**—**	**(1,924)**
Private equity distributions	**—**	**—**	**907**	**—**	**907**
Payment, including deposit, for Huatai Group interest	**—**	**—**	**(1,623)**	**—**	**(1,623)**
Capital contribution	**(1,200)**	**(72)**	**—**	**1,272**	**—**
Other	**(2)**	**4**	**(472)**	**—**	**(470)**
Net cash flows from (used for) investing activities	**(1,202)**	**769**	**(8,360)**	**1,272**	**(7,521)**
Cash flows from financing activities					
Dividends paid on Common Shares	**(1,388)**	**—**	**—**	**—**	**(1,388)**
Common Shares repurchased	**(523)**	**—**	**—**	**—**	**(523)**
Proceeds from issuance of long-term debt	**—**	**988**	**—**	**—**	**988**
Proceeds from issuance of repurchase agreements	**—**	**—**	**2,354**	**—**	**2,354**
Repayment of long-term debt	**—**	**(1,301)**	**—**	**—**	**(1,301)**
Repayment of repurchase agreements	**—**	**—**	**(2,354)**	**—**	**(2,354)**
Proceeds from share-based compensation plans	**—**	**—**	**145**	**—**	**145**
Advances (to) from affiliates	**1,265**	**(1,438)**	**173**	**—**	**—**
Dividends to parent company	**—**	**—**	**(3,210)**	**3,210**	**—**
Capital contribution	**—**	**—**	**1,272**	**(1,272)**	**—**
Net proceeds from affiliated notional cash pooling programs[1]	**—**	**272**	**—**	**(272)**	**—**
Policyholder contract deposits and other	**—**	**—**	**470**	**—**	**470**
Policyholder contract withdrawals and other	**—**	**—**	**(386)**	**—**	**(386)**
Other	**—**	**—**	**(87)**	**—**	**(87)**
Net cash flows used for financing activities	**(646)**	**(1,479)**	**(1,623)**	**1,666**	**(2,082)**
Effect of foreign currency rate changes on cash and restricted cash	**(3)**	**(5)**	**16**	**—**	**8**
Net increase (decrease) in cash and restricted cash	**82**	**(441)**	**821**	**(272)**	**190**
Cash and restricted cash – beginning of year	**2**	**442**	**1,202**	**—**	**1,646**
Cash and restricted cash – end of year	**$ 84**	**$ 1**	**$ 2,023**	**$ (272)**	**$ 1,836**

[1] Chubb maintains two notional multi-currency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information. At December 31, 2020, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

Condensed Consolidating Statements of Operations and Comprehensive Income (Loss)

For the Year Ended December 31, 2018 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	$ —	$ —	$ 30,579	$ —	$ 30,579
Net premiums earned	—	—	30,064	—	30,064
Net investment income	6	13	3,286	—	3,305
Equity in earnings of subsidiaries	3,753	2,578	—	(6,331)	—
Net realized gains (losses) including OTTI	—	117	(769)	—	(652)
Losses and loss expenses	—	—	18,067	—	18,067
Policy benefits	—	—	590	—	590
Policy acquisition costs and administrative expenses	87	(58)	8,769	—	8,798
Interest (income) expense	(299)	806	134	—	641
Other (income) expense	(24)	26	(436)	—	(434)
Amortization of purchased intangibles	—	—	339	—	339
Chubb integration expenses	14	1	44	—	59
Income tax expense (benefit)	19	(148)	824	—	695
Net income	$ 3,962	$ 2,081	$ 4,250	$ (6,331)	$ 3,962
Comprehensive income (loss)	$ 1,242	$ (27)	$ 1,808	$ (1,781)	$ 1,242

Condensed Consolidating Statements of Operations and Comprehensive Income

For the Year Ended December 31, 2020 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	**$ —**	**$ —**	**$ 33,820**	**$ —**	**$ 33,820**
Net premiums earned	**—**	**—**	**33,117**	**—**	**33,117**
Net investment income	**(1)**	**6**	**3,370**	**—**	**3,375**
Equity in earnings of subsidiaries	**3,457**	**2,052**	**—**	**(5,509)**	**—**
Net realized gains (losses)	**20**	**(397)**	**(121)**	**—**	**(498)**
Losses and loss expenses	**—**	**—**	**21,710**	**—**	**21,710**
Policy benefits	**—**	**—**	**784**	**—**	**784**
Policy acquisition costs and administrative expenses	**94**	**(130)**	**9,562**	**—**	**9,526**
Interest (income) expense	**(136)**	**596**	**56**	**—**	**516**
Other (income) expense	**(39)**	**(24)**	**(931)**	**—**	**(994)**
Amortization of purchased intangibles	**—**	**—**	**290**	**—**	**290**
Income tax expense (benefit)	**24**	**(181)**	**786**	**—**	**629**
Net income	**$ 3,533**	**$ 1,400**	**$ 4,109**	**$ (5,509)**	**$ 3,533**
Comprehensive income	**$ 5,783**	**$ 3,236**	**$ 6,512**	**$ (9,748)**	**$ 5,783**

Condensed Consolidating Statements of Operations and Comprehensive Income

For the Year Ended December 31, 2019 (in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Net premiums written	$ —	$ —	$ 32,275	$ —	$ 32,275
Net premiums earned	—	—	31,290	—	31,290
Net investment income	1	(15)	3,440	—	3,426
Equity in earnings of subsidiaries	4,307	3,022	—	(7,329)	—
Net realized gains (losses) including OTTI	(17)	(31)	(482)	—	(530)
Losses and loss expenses	—	—	18,730	—	18,730
Policy benefits	—	—	740	—	740
Policy acquisition costs and administrative expenses	92	(26)	9,117	—	9,183
Interest (income) expense	(243)	705	90	—	552
Other (income) expense	(27)	6	(575)	—	(596)
Amortization of purchased intangibles	—	—	305	—	305
Chubb integration expenses	1	2	20	—	23
Income tax expense (benefit)	14	(175)	956	—	795
Net income	$ 4,454	$ 2,464	$ 4,865	$ (7,329)	$ 4,454
Comprehensive income	$ 7,521	$ 4,988	$ 7,922	$ (12,910)	$ 7,521

Condensed Consolidating Balance Sheet at December 31, 2019

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Assets					
Investments	$ —	$ 1,013	$ 108,221	$ —	$ 109,234
Cash [1]	2	442	1,093	—	1,537
Restricted Cash	—	—	109	—	109
Insurance and reinsurance balances receivable	—	—	12,920	(2,563)	10,357
Reinsurance recoverable on losses and loss expenses	—	—	24,780	(9,599)	15,181
Reinsurance recoverable on policy benefits	—	—	292	(95)	197
Value of business acquired	—	—	306	—	306
Goodwill and other intangible assets	—	—	21,359	—	21,359
Investments in subsidiaries	50,853	52,076	—	(102,929)	—
Due from subsidiaries and affiliates, net	4,776	—	—	(4,776)	—
Other assets	12	408	20,072	(1,829)	18,663
Total assets	$ 55,643	$ 53,939	$ 189,152	$ (121,791)	$ 176,943
Liabilities					
Unpaid losses and loss expenses	$ —	$ —	$ 71,916	$ (9,226)	$ 62,690
Unearned premiums	—	—	17,978	(1,207)	16,771
Future policy benefits	—	—	5,468	(95)	5,373
Due to subsidiaries and affiliates, net	—	4,446	330	(4,776)	—
Repurchase agreements	—	—	1,416	—	1,416
Short-term debt	—	1,298	1	—	1,299
Long-term debt	—	13,559	—	—	13,559
Trust preferred securities	—	308	—	—	308
Other liabilities	312	1,649	21,793	(3,558)	20,196
Total liabilities	312	21,260	118,902	(18,862)	121,612
Total shareholders' equity	55,331	32,679	70,250	(102,929)	55,331
Total liabilities and shareholders' equity	$ 55,643	$ 53,939	$ 189,152	$ (121,791)	$ 176,943

[1] Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information.

19. Information provided in connection with outstanding debt of subsidiaries

The following tables present condensed consolidating financial information at December 31, 2020 and 2019, and for the years ended December 31, 2020, 2019, and 2018 for Chubb Limited (Parent Guarantor) and Chubb INA Holdings Inc. (Subsidiary Issuer). The Subsidiary Issuer is an indirect 100 percent-owned subsidiary of the Parent Guarantor. The Parent Guarantor fully and unconditionally guarantees certain of the debt of the Subsidiary Issuer. Condensed consolidating financial information of the Parent Guarantor and Subsidiary Issuer are presented on the equity method of accounting. The revenues and expenses and cash flows of the subsidiaries of the Subsidiary Issuer are presented in the Other Chubb Limited Subsidiaries column on a combined basis.

Condensed Consolidating Balance Sheet at December 31, 2020

(in millions of U.S. dollars)	Chubb Limited (Parent Guarantor)	Chubb INA Holdings Inc. (Subsidiary Issuer)	Other Chubb Limited Subsidiaries	Consolidating Adjustments and Eliminations	Chubb Limited Consolidated
Assets					
Investments	$ —	$ 197	$ 118,472	$ —	$ 118,669
Cash [1]	84	1	1,934	(272)	1,747
Restricted Cash	—	—	89	—	89
Insurance and reinsurance balances receivable	—	—	13,926	(3,446)	10,480
Reinsurance recoverable on losses and loss expenses	—	—	25,217	(9,625)	15,592
Reinsurance recoverable on policy benefits	—	—	299	(93)	206
Value of business acquired	—	—	263	—	263
Goodwill and other intangible assets	—	—	21,211	—	21,211
Investments in subsidiaries	56,148	55,231	—	(111,379)	—
Due from subsidiaries and affiliates, net	3,522	—	171	(3,693)	—
Other assets	10	463	23,921	(1,877)	22,517
Total assets	$ 59,764	$ 55,892	$ 205,503	$ (130,385)	$ 190,774
Liabilities					
Unpaid losses and loss expenses	$ —	$ —	$ 77,180	$ (9,369)	$ 67,811
Unearned premiums	—	—	18,853	(1,201)	17,652
Future policy benefits	—	—	5,806	(93)	5,713
Due to subsidiaries and affiliates, net	—	3,008	685	(3,693)	—
Affiliated notional cash pooling programs[1]	—	272	—	(272)	—
Repurchase agreements	—	—	1,405	—	1,405
Long-term debt	—	14,948	—	—	14,948
Trust preferred securities	—	308	—	—	308
Other liabilities	323	1,418	26,133	(4,378)	23,496
Total liabilities	323	19,954	130,062	(19,006)	131,333
Total shareholders' equity	59,441	35,938	75,441	(111,379)	59,441
Total liabilities and shareholders' equity	$ 59,764	$ 55,892	$ 205,503	$ (130,385)	$ 190,774

[1] Chubb maintains two notional multicurrency cash pools (Pools) with a third-party bank. Refer to Note 1 f) for additional information. At December 31, 2020, the cash balance of one or more entities was negative; however, the overall Pool balances were positive.

The following tables present the combined statutory capital and surplus and statutory net income (loss) of our Property and casualty and Life subsidiaries:

	December 31	
(in millions of U.S. dollars)	**2020**	2019
Statutory capital and surplus		
Property and casualty	**$ 45,964**	$ 43,077
Life	**$ 1,641**	$ 1,573

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Statutory net income (loss)			
Property and casualty	**$ 4,294**	$ 6,046	$ 7,521
Life	**$ (247)**	$ (210)	$ (102)

Several insurance subsidiaries follow accounting practices prescribed or permitted by the jurisdiction of domicile that differ from the applicable local statutory practice. The application of prescribed or permitted accounting practices does not have a material impact on Chubb's statutory surplus and income. As prescribed by the Restructuring discussed previously in Note 7, certain of our U.S. subsidiaries discount certain A&E liabilities, which increased statutory capital and surplus by approximately $140 million and $147 million at December 31, 2020 and 2019, respectively.

Federal Insurance Company (Federal), a direct subsidiary of Chubb INA Holdings Inc., has a permitted practice granted by the Indiana Department of Insurance that relates to its investments in foreign subsidiaries and affiliates. Under Statement of Statutory Accounting Principles No. 97, Investments in Subsidiary, Controlled and Affiliated Entities, in order for a reporting entity to admit its investments in foreign subsidiaries and affiliates, audited financial statements of the subsidiary or affiliate must be obtained to support the carrying value. Such financial statements must be prepared in accordance with U.S. GAAP, or alternatively, in accordance with the local statutory requirements in the subsidiary's or affiliate's country of domicile, with an audited footnote reconciliation of net income and shareholder's equity as reported to a U.S. GAAP basis. With the explicit permission of the Indiana Department of Insurance, Federal obtains audited financial statements for its admitted foreign subsidiaries and affiliates, which had an aggregate carrying value of approximately $55 million and $54 million at December 31, 2020 and 2019, respectively, prepared in accordance with their respective local statutory requirements and supplemented with a separate unaudited reconciliation of shareholder's equity as reported to a U.S. GAAP basis.

ABR Re

We own 15.6 percent of the common equity of ABR Reinsurance Capital Holdings Ltd. and warrants to acquire 0.5 percent of additional equity. ABR Reinsurance Capital Holdings Ltd., is the parent company of ABR Reinsurance Ltd. (ABR Re), an independent reinsurance company. Through long-term arrangements, Chubb will be the sole source of reinsurance risks ceded to ABR Re, and BlackRock, Inc. will be ABR Re's exclusive investment management service provider. As an investor, Chubb is expected to benefit from underwriting profit generated by ABR Re's reinsuring a wide range of Chubb's primary insurance business and the income and capital appreciation BlackRock, Inc. seeks to deliver through its investment management services. In addition, Chubb has entered into an arrangement with BlackRock, Inc. under which both Chubb and BlackRock, Inc. will be entitled to an equal share of the aggregate amount of certain fees, including underwriting and investment management performance related fees, in connection with their respective reinsurance and investment management arrangements with ABR Re.

ABR Re is a variable interest entity; however, Chubb is not the primary beneficiary and does not consolidate ABR Re because Chubb does not have the power to control and direct ABR Re's most significant activities, including investing and underwriting. Our minority ownership interest is accounted for under the equity method of accounting. Chubb cedes premiums to ABR Re and recognizes the associated commissions.

Transactions generated under ABR Re agreements were as follows:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Consolidated statement of operations			
Ceded premiums written	**$ 350**	$ 321	$ 329
Commissions received	**$ 100**	$ 92	$ 96
Consolidated balance sheets			
Reinsurance recoverable on losses and loss expenses	**$ 806**	$ 674	
Ceded reinsurance premium payable	**$ 67**	$ 62	

18. Statutory financial information

Our subsidiaries file financial statements prepared in accordance with statutory accounting practices prescribed or permitted by insurance regulators. Statutory accounting differs from GAAP in the reporting of certain reinsurance contracts, investments, subsidiaries, acquisition expenses, fixed assets, deferred income taxes, and certain other items. Some jurisdictions impose complex regulatory requirements on insurance companies while other jurisdictions impose fewer requirements. In some jurisdictions, we must obtain licenses issued by governmental authorities to conduct local insurance business. These licenses may be subject to reserves and minimum capital and solvency tests. Jurisdictions may impose fines, censure, and/or criminal sanctions for violation of regulatory requirements. The 2020 amounts below are based on estimates.

Chubb's insurance and reinsurance subsidiaries are subject to insurance laws and regulations in the jurisdictions in which they operate. These regulations include restrictions that limit the amount of dividends or other distributions, such as loans or cash advances, available to shareholders without prior approval of the local insurance regulatory authorities. The amount of dividends available to be paid in 2021 without prior approval totals $6.4 billion.

The statutory capital and surplus of our insurance subsidiaries met regulatory requirements for 2020, 2019, and 2018. The minimum amounts of statutory capital and surplus necessary to satisfy regulatory requirements was $29.4 billion and $26.7 billion for December 31, 2020 and 2019, respectively. These minimum regulatory capital requirements were significantly lower than the corresponding amounts required by the rating agencies which review Chubb's insurance and reinsurance subsidiaries.

16. Earnings per share

(in millions of U.S. dollars, except share and per share data)	Year Ended December 31 2020	2019	2018
Numerator:			
Net income	**$ 3,533**	$ 4,454	$ 3,962
Denominator:			
Denominator for basic earnings per share:			
Weighted-average shares outstanding	**451,602,820**	455,910,463	463,629,203
Denominator for diluted earnings per share:			
Share-based compensation plans	**1,838,692**	3,004,200	3,173,145
Weighted-average shares outstanding and assumed conversions	**453,441,512**	458,914,663	466,802,348
Basic earnings per share	**$ 7.82**	$ 9.77	$ 8.55
Diluted earnings per share	**$ 7.79**	$ 9.71	$ 8.49
Potential anti-dilutive share conversions	**6,811,966**	2,410,337	3,543,188

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

17. Related party transactions

Starr Indemnity & Liability Company and its affiliates (collectively, Starr)
We have a number of agency and reinsurance agreements with Starr, the Chairman of which is related to a member of our senior management team. The Board has reviewed and approved our arrangements with Starr. We have agency, claims services and underwriting services agreements with various Starr subsidiaries. Under the agency agreement, we secure the ability to sell our insurance policies through Starr as one of our non-exclusive agents for writing policies, contracts, binders, or agreements of insurance or reinsurance. Under the claims services agreements, Starr adjusts the claims under policies and arranges for third party treaty and facultative agreements covering such policies. Under the underwriting services agreements, Starr underwrites insurance policies on our behalf and we agree to reinsure such policies to Starr under quota share reinsurance agreements.

The agency agreement also contains a profit-sharing arrangement based on loss ratios, triggered if Starr underwrites a minimum of $20 million of annual program business net premiums written on our behalf. No profit share commission has been payable yet under this arrangement. Transactions generated under Starr agreements were as follows:

(in millions of U.S. dollars)	Year Ended December 31 2020	2019	2018
Consolidated statement of operations			
Gross premiums written	**$ 507**	$ 394	$ 411
Ceded premiums written	**$ 253**	$ 207	$ 188
Commissions paid	**$ 97**	$ 77	$ 84
Commissions received	**$ 59**	$ 46	$ 42
Losses and loss expenses	**$ 170**	$ 185	$ 188
Consolidated balance sheets			
Reinsurance recoverable on losses and loss expenses	**$ 432**	$ 440	
Ceded reinsurance premium payable	**$ 80**	$ 56	

The following table presents net premiums earned for each segment by line of business:

	For the Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
North America Commercial P&C Insurance			
Property & other short-tail lines	**$ 2,423**	$ 1,987	$ 1,861
Casualty & all other	**10,812**	10,136	9,773
A&H	**729**	799	768
Total North America Commercial P&C Insurance	**13,964**	12,922	12,402
North America Personal P&C Insurance			
Personal automobile	**822**	829	803
Personal homeowners	**3,327**	3,183	3,127
Personal other	**717**	682	663
Total North America Personal P&C Insurance	**4,866**	4,694	4,593
North America Agricultural Insurance	**1,822**	1,795	1,569
Overseas General Insurance			
Property & other short-tail lines	**2,468**	2,244	2,134
Casualty & all other	**2,738**	2,494	2,429
Personal lines	**1,981**	1,896	1,784
A&H	**2,098**	2,248	2,265
Total Overseas General Insurance	**9,285**	8,882	8,612
Global Reinsurance			
Property	**104**	131	123
Property catastrophe	**173**	142	170
Casualty & all other	**421**	381	377
Total Global Reinsurance	**698**	654	670
Life Insurance			
Life	**1,317**	1,101	1,022
A&H	**1,165**	1,242	1,196
Total Life Insurance	**2,482**	2,343	2,218
Total net premiums earned	**$ 33,117**	$ 31,290	$ 30,064

The following table presents net premiums earned by geographic region. Allocations have been made on the basis of location of risk:

	North America	Europe [1]	Asia Pacific / Far East	Latin America
2020	**70 %**	**11 %**	**12 %**	**7 %**
2019	70 %	11 %	12 %	7 %
2018	70 %	11 %	12 %	7 %

[1] Europe includes Eurasia and Africa regions.

For the Year Ended December 31, 2018 (in millions of U.S. dollars)	North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Life Insurance	Corporate	Segment Measure Reclass	Chubb Consolidated
Net premiums written	$ 12,485	$ 4,674	$ 1,577	$ 8,902	$ 671	$ 2,270	$ —	$ —	$ 30,579
Net premiums earned	12,402	4,593	1,569	8,612	670	2,218	—	—	30,064
Losses and loss expenses	8,000	3,229	1,114	4,429	479	766	53	(3)	18,067
Policy benefits	—	—	—	—	—	628	—	(38)	590
Policy acquisition costs	1,829	939	79	2,346	162	557	—	—	5,912
Administrative expenses	966	269	(9)	1,014	41	310	295	—	2,886
Underwriting income (loss)	1,607	156	385	823	(12)	(43)	(348)	41	2,609
Net investment income (loss)	2,061	236	28	622	289	341	(209)	(63)	3,305
Other (income) expense	3	1	2	3	—	(12)	(406)	(25)	(434)
Amortization expense of purchased intangibles	—	13	28	41	—	2	255	—	339
Segment income (loss)	$ 3,665	$ 378	$ 383	$ 1,401	$ 277	$ 308	$ (406)	$ 3	$ 6,009
Net realized gains (losses) including OTTI							(649)	(3)	(652)
Interest expense							641	—	641
Chubb integration expenses							59	—	59
Income tax expense							695	—	695
Net income (loss)							$ (2,450)	$ —	$ 3,962

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.

The following tables present the Statement of Operations by segment:

For the Year Ended December 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	$ 14,474	$ 4,920	$ 1,846	$ 9,335	$ 731	$ 2,514	$ —	$ —	$ 33,820
Net premiums earned	13,964	4,866	1,822	9,285	698	2,482	—	—	33,117
Losses and loss expenses	10,129	3,187	1,544	5,255	435	724	435	1	21,710
Policy benefits	—	—	—	—	—	726	—	58	784
Policy acquisition costs	1,942	974	123	2,568	174	766	—	—	6,547
Administrative expenses	1,006	270	9	1,034	37	320	303	—	2,979
Underwriting income (loss)	887	435	146	428	52	(54)	(738)	(59)	1,097
Net investment income (loss)	2,061	260	30	534	307	385	(87)	(115)	3,375
Other (income) expense	23	5	1	13	2	(74)	(791)	(173)	(994)
Amortization expense of purchased intangibles	—	11	27	45	—	4	203	—	290
Segment income (loss)	$ 2,925	$ 679	$ 148	$ 904	$ 357	$ 401	$ (237)	$ (1)	$ 5,176
Net realized gains (losses)							(499)	1	(498)
Interest expense							516	—	516
Income tax expense							629	—	629
Net income (loss)							$ (1,881)	$ —	$ 3,533

For the Year Ended December 31, 2019 (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	$ 13,375	$ 4,787	$ 1,810	$ 9,262	$ 649	$ 2,392	$ —	$ —	$ 32,275
Net premiums earned	12,922	4,694	1,795	8,882	654	2,343	—	—	31,290
Losses and loss expenses	8,206	3,043	1,616	4,606	352	757	158	(8)	18,730
Policy benefits	—	—	—	—	—	696	—	44	740
Policy acquisition costs	1,831	948	84	2,501	169	620	—	—	6,153
Administrative expenses	1,028	286	6	1,033	35	323	319	—	3,030
Underwriting income (loss)	1,857	417	89	742	98	(53)	(477)	(36)	2,637
Net investment income (loss)	2,109	258	30	588	279	373	(125)	(86)	3,426
Other (income) expense	24	3	1	12	1	(48)	(459)	(130)	(596)
Amortization expense of purchased intangibles	—	12	28	45	—	2	218	—	305
Segment income (loss)	$ 3,942	$ 660	$ 90	$ 1,273	$ 376	$ 366	$ (361)	$ 8	$ 6,354
Net realized gains (losses) including OTTI							(522)	(8)	(530)
Interest expense							552	—	552
Chubb integration expenses							23	—	23
Income tax expense							795	—	795
Net income (loss)							$ (2,253)	$ —	$ 4,454

- 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.

wholesale and specialty divisions: Westchester and Chubb Bermuda. These divisions write a variety of coverages, including property, casualty, workers' compensation, package policies, risk management, financial lines, marine, construction, environmental, medical risk, cyber risk, surety, and excess casualty; as well as group accident and health (A&H) insurance.

- The North America Personal P&C Insurance segment includes the business written by Chubb Personal Risk Services division, which includes high net worth personal lines business, with operations in the U.S. and Canada. This segment provides affluent and high net worth individuals and families with homeowners, automobile and collector cars, valuable articles (including fine arts), personal and excess liability, travel insurance, and recreational marine insurance and services.

- The North America Agricultural Insurance segment includes the business written by Rain and Hail Insurance Service, Inc. in the U.S. and Canada, which provides comprehensive multiple peril crop insurance (MPCI) and crop-hail insurance, and Chubb Agribusiness, which offers farm and ranch property as well as specialty P&C coverages, including commercial agriculture products.

- The Overseas General Insurance segment includes the business written by two Chubb divisions that provides both commercial and consumer P&C insurance and services in the 51 countries and territories outside of North America where the company operates. Chubb International provides commercial P&C, A&H and traditional and specialty personal lines for large corporations, middle markets and small customers through retail brokers, agents and other channels locally around the world. Chubb Global Markets (CGM) provides commercial P&C excess and surplus lines and A&H through wholesale brokers in the London market and through Lloyd's. These divisions write a variety of coverages, including traditional commercial P&C, specialty categories such as financial lines, marine, energy, aviation, political risk and construction, as well as group A&H and traditional and specialty personal lines.

- The Global Reinsurance segment includes the reinsurance business written by Chubb Tempest Re, comprising Chubb Tempest Re Bermuda, Chubb Tempest Re USA, Chubb Tempest Re International, and Chubb Tempest Re Canada. Chubb Tempest Re provides a broad range of traditional and specialty reinsurance coverages to a diverse array of primary P&C companies, including small, mid-sized, and multinational ceding companies.

- The Life Insurance segment includes international life operations written by Chubb Life and Chubb Tempest Life Re, and the North American supplemental A&H and life business of Combined Insurance.

Corporate primarily includes the results of all run-off asbestos and environmental (A&E) exposures, run-off Brandywine business, Westchester specialty operations for 1996 and prior years, and certain other non-A&E run-off exposures. In addition, Corporate includes the results of our non-insurance companies including Chubb Limited, Chubb Group Management and Holdings Ltd., and Chubb INA Holdings Inc. Our exposure to A&E claims principally arises out of liabilities acquired when we purchased Westchester Specialty in 1998, CIGNA's P&C business in 1999, and The Chubb Corporation (Chubb Corp) in 2016.

In addition, revenue and expenses managed at the corporate level, including realized gains and losses, interest expense, the non-operating income of our partially-owned entities, Chubb integration expenses and income taxes are reported within Corporate. In addition, the amortization expense of purchased intangibles, amortization of the fair value adjustment on acquired invested assets and assumed long-term debt as part of the Chubb Corp acquisition are considered Corporate costs as these are incurred by the overall company. The Chief Executive Officer does not manage segment results or allocate resources to segments when considering these costs and they are therefore excluded from our definition of segment income (loss).

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. Segment income (loss) includes underwriting income (loss), net investment income (loss), and other operating income and expense items such as each segment's share of the operating income (loss) related to partially-owned insurance companies and miscellaneous income and expense items for which the segments are held accountable. Our main measure of segment performance is Segment income (loss), which also includes 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. To calculate Segment income (loss), include Net investment income (loss), Other (income) expense, and Amortization expense of purchased intangibles. 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:

December 31, 2019				Pension Benefit Plans
(in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total
U.S. Plans:				
Short-term investments	$ 18	$ 37	$ —	$ 55
U.S. Treasury / Agency	466	134	—	600
Non-U.S. and corporate bonds	—	749	—	749
Municipal	—	2	—	2
Equity securities	1,467	—	—	1,467
Total U.S. Plan assets [1]	$ 1,951	$ 922	$ —	$ 2,873
Non-U.S. Plans:				
Short-term investments	$ 2	$ —	$ —	$ 2
Non-U.S. and corporate bonds	—	598	—	598
Equity securities	112	318	—	430
Total Non-U.S. Plan assets [1]	$ 114	$ 916	$ —	$ 1,030

[1] Excluded from the table above are $428 million and $107 million of other investments related to the U.S. Plans and Non-U.S. Plans, respectively, and limited partnerships of $4 million in Non-U.S. Plans, measured using NAV as a practical expedient.

The other postretirement benefit plan had $120 million and $152 million of other investments measured using NAV as a practical expedient at December 31, 2020 and 2019, respectively.

14. Other income and expense

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Equity in net income of partially-owned entities [1]	**$ 1,019**	$ 617	$ 514
Gains (losses) from fair value changes in separate account assets [2]	**58**	44	(38)
Federal excise and capital taxes	**(22)**	(23)	(12)
Other	**(61)**	(42)	(30)
Total	**$ 994**	$ 596	$ 434

[1] Equity in net income of partially-owned entities includes $167 million, $74 million, and $43 million attributable to our investments in Huatai (Huatai Group, Huatai P&C, and Huatai Life) for the years ended December 31, 2020, 2019, and 2018, 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.

15. 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. These segments distribute their products through various forms of brokers, agencies, and direct marketing programs. All business segments have established relationships with reinsurance intermediaries.

- The North America Commercial P&C Insurance segment provides both commercial and consumer P&C products and services. This segment includes the business written by Chubb divisions that provide property and casualty (P&C) insurance and services to large, middle market and small commercial businesses in the U.S., Canada, and Bermuda. This segment includes our retail divisions: Major Accounts, Commercial Insurance, including Small Commercial Insurance; and our

The weighted-average healthcare cost trend rate assumptions used to measure the expected cost of healthcare benefits were as follows:

	U.S. Plans			Non-U.S. Plans		
	2020	2019	2018	**2020**	2019	2018
Healthcare cost trend rate	**5.96 %**	6.32 %	6.68 %	**5.04 %**	5.24 %	6.29 %
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	**4.50 %**	4.50 %	4.50 %	**4.00 %**	4.00 %	4.50 %
Year that the rate reaches the ultimate trend rate	**2038**	2038	2038	**2040**	2040	2029

Plan Assets

The long term objective of the pension plan is to provide sufficient funding to cover expected benefit obligations, while assuming a prudent level of portfolio risk. The assets of the pension plan are invested, either directly or through pooled funds, in a diversified portfolio of predominately equity securities and fixed maturities. We seek to obtain a rate of return that over time equals or exceeds the returns of the broad markets in which the plan assets are invested. The target allocation of U.S. plan assets is 55 percent to 65 percent invested in equity securities (including certain other investments measured using NAV), with the remainder primarily invested in fixed maturities. The target allocation of non-U.S. plans varies by country, but the plan assets are principally invested in fixed maturities. We rebalance our pension assets to the target allocation as market conditions permit. We determined the expected long term rate of return assumption for each asset class based on an analysis of the historical returns and the expectations for future returns. The expected long term rate of return for the portfolio is a weighted aggregation of the expected returns for each asset class.

In order to minimize risk, the Plan maintains a listing of permissible and prohibited investments. In addition, the Plan has certain concentration limits and investment quality requirements imposed on permissible investments options. Investment risk is measured and monitored on an ongoing basis.

The following tables present the fair values of the pension plan assets, by valuation hierarchy. For additional information on how we classify these assets within the valuation hierarchy, refer to Note 4 to the Consolidated Financial Statements.

December 31, 2020				**Pension Benefit Plans**
(in millions of U.S. dollars)	**Level 1**	**Level 2**	**Level 3**	**Total**
U.S. Plans:				
Short-term investments	**$ 59**	**$ —**	**$ —**	**$ 59**
U.S. Treasury / Agency	**250**	**186**	**—**	**436**
Non-U.S. and corporate bonds	**—**	**793**	**—**	**793**
Municipal	**—**	**2**	**—**	**2**
Equity securities	**1,818**	**—**	**—**	**1,818**
Total U.S. Plan assets [1]	**$ 2,127**	**$ 981**	**$ —**	**$ 3,108**
Non-U.S. Plans:				
Short-term investments	**$ 5**	**$ —**	**$ —**	**$ 5**
Non-U.S. and corporate bonds	**—**	**609**	**—**	**609**
Equity securities	**127**	**388**	**—**	**515**
Total Non-U.S. Plan assets [1]	**$ 132**	**$ 997**	**$ —**	**$ 1,129**

[1] Excluded from the table above are $543 million and $147 million of other investments related to the U.S. Plans and Non-U.S. Plans, respectively, limited partnerships of $74 million and $8 million in U.S. Plans and Non-U.S. Plans, respectively, measured using NAV as a practical expedient, and $14 million in cash related to the U.S. Plans.

The weighted-average assumptions used to determine the net periodic pension and other postretirement benefit costs were as follows:

	Pension Benefit Plans		
Year Ended December 31	U.S. Plans	Non-U.S. Plans	Other Postretirement Benefit Plans
2020			
Discount rate in effect for determining service cost	**N/A**	**6.04 %**	**3.00 %**
Discount rate in effect for determining interest cost	**2.85 %**	**2.24 %**	**2.64 %**
Rate of compensation increase	**N/A**	**3.26 %**	**N/A**
Expected long-term rate of return on plan assets	**7.00 %**	**3.83 %**	**3.00 %**
Interest crediting rate	**4.10 %**	**N/A**	**N/A**
2019			
Discount rate in effect for determining service cost	4.23 %	4.48 %	4.04 %
Discount rate in effect for determining interest cost	3.94 %	2.88 %	3.69 %
Rate of compensation increase	4.00 %	3.37 %	N/A
Expected long-term rate of return on plan assets	7.00 %	4.40 %	3.00 %
Interest crediting rate	4.10 %	N/A	N/A
2018			
Discount rate in effect for determining service cost	3.62 %	3.97 %	2.84 %
Discount rate in effect for determining interest cost	3.27 %	2.55 %	2.62 %
Rate of compensation increase	4.00 %	3.46 %	N/A
Expected long-term rate of return on plan assets	7.00 %	4.32 %	2.59 %
Interest crediting rate	4.10 %	N/A	N/A

The projected benefit cash flows were discounted using the corresponding spot rates derived from a yield curve, which resulted in a single discount rate that would produce the same liability at the respective measurement dates. The same process was applied to service cost cash flows to determine the discount rate associated with the service cost. In general, the discount rates for the non-U.S. plans were developed using a similar methodology by using country-specific yield curves.

The components of net pension and other postretirement benefit costs reflected in Net income and other changes in plan assets and benefit obligations recognized in other comprehensive income were as follows:

	Pension Benefit Plans						Other Postretirement Benefit Plans		
	U.S. Plans			Non-U.S. Plans					
Year Ended December 31 (in millions of U.S. dollars)	**2020**	2019	2018	**2020**	2019	2018	**2020**	2019	2018
Costs reflected in Net income:									
Service cost	**$ —**	$ 49	$ 57	**$ 4**	$ 11	$ 12	**$ 1**	$ —	$ 1
Non-service cost:									
Interest cost	**99**	118	105	**22**	27	27	**2**	4	3
Expected return on plan assets	**(224)**	(189)	(212)	**(41)**	(45)	(50)	**(5)**	(4)	(5)
Amortization of net actuarial loss	**—**	—	—	**2**	3	1	**—**	—	—
Amortization of prior service cost	**—**	—	—	**—**	—	—	**(83)**	(84)	(85)
Curtailments	**—**	—	—	**(1)**	(1)	—	**—**	—	(2)
Settlements	**3**	2	2	**—**	1	3	**—**	—	—
Total non-service benefit	**(122)**	(69)	(105)	**(18)**	(15)	(19)	**(86)**	(84)	(89)
Net periodic benefit	**$ (122)**	$ (20)	$ (48)	**$ (14)**	$ (4)	$ (7)	**$ (85)**	$ (84)	$ (88)
Changes in plan assets and benefit obligations recognized in other comprehensive income									
Net actuarial loss (gain)	**$ 102**	$ (4)	$ 214	**$ 56**	$ 6	$ 34	**$ (2)**	$ (2)	$ (11)
Prior service cost (benefit)	**—**	—	—	**—**	1	3	**—**	—	—
Amortization of net actuarial loss	**—**	—	—	**(2)**	(3)	(1)	**—**	—	(1)
Amortization of prior service cost	**—**	—	—	**(1)**	—	—	**83**	84	85
Curtailments	**—**	—	—	**(1)**	(3)	—	**—**	—	3
Settlements	**(3)**	(2)	(2)	**—**	(1)	(3)	**—**	—	—
Total decrease (increase) in other comprehensive income	**$ 99**	$ (6)	$ 212	**$ 52**	$ —	$ 33	**$ 81**	$ 82	$ 76

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

	Pension Benefit Plans			Other Postretirement Benefit Plans		
Year Ended December 31 (in millions of U.S. dollars)	**2020**	2019	2018	**2020**	2019	2018
Service cost:						
Losses and loss expenses	**$ —**	$ 6	$ 7	**$ —**	$ —	$ —
Administrative expenses	**4**	54	62	**1**	—	1
Total service cost	**4**	60	69	**1**	—	1
Non-service cost:						
Losses and loss expenses	**(12)**	(7)	(10)	**(9)**	(8)	(9)
Administrative expenses	**(128)**	(77)	(114)	**(77)**	(76)	(80)
Total non-service benefit	**(140)**	(84)	(124)	**(86)**	(84)	(89)
Net periodic benefit	**$ (136)**	$ (24)	$ (55)	**$ (85)**	$ (84)	$ (88)

The following table provides information on pension plans where the benefit obligation is in excess of plan assets at December 31, 2020 and 2019:

	2020		2019	
(in millions of U.S. dollars)	**U.S. Plans**	**Non-U.S. Plans**	U.S. Plans	Non-U.S. Plans
Plans with projected benefit obligation in excess of plan assets:				
Projected benefit obligation	**$ 3,967**	**$ 629**	$ 3,569	$ 236
Fair value of plan assets	**3,739**	**568**	3,301	175
Net funded status	**$ (228)**	**$ (61)**	$ (268)	$ (61)
Plans with accumulated benefit obligation in excess of plan assets:				
Accumulated benefit obligation	**$ 3,967**	**$ 593**	$ 3,569	$ 173
Fair value of plan assets	**$ 3,739**	**$ 565**	$ 3,301	$ 140

For other postretirement benefit plans with an accumulated benefit obligation in excess of plan assets, the accumulated benefit obligation was $23 million and $25 million at December 31, 2020 and 2019, respectively. These plans have no plan assets.

At December 31, 2020, we estimate that we will contribute $20 million to the pension plans and $1 million to the other postretirement benefits plan in 2021. The estimate is subject to change due to contribution decisions that are affected by various factors including our liquidity, market performance and management discretion.

At December 31, 2020, our estimated expected future benefit payments are as follows:

	Pension Benefit Plans		
For the years ending December 31 (in millions of U.S. dollars)	U.S. Plans	Non-U.S. Plans	Other Postretirement Benefit Plans
2021	$ 159	$ 30	$ 19
2022	166	28	20
2023	171	30	16
2024	175	32	12
2025	180	32	7
2026-2030	947	185	5

The weighted-average assumptions used to determine the projected benefit obligation were as follows:

	Pension Benefit Plans		
	U.S. Plans	Non-U.S. Plans	Other Postretirement Benefit Plans
December 31, 2020			
Discount rate	**2.32 %**	**1.80 %**	**1.36 %**
Rate of compensation increase [1]	**N/A**	**3.24 %**	**N/A**
Interest crediting rate	**4.10 %**		
December 31, 2019			
Discount rate	3.20 %	2.39 %	2.70 %
Rate of compensation increase [1]	N/A	3.26 %	N/A
Interest crediting rate	4.10 %		

[1] For the U.S. Pension Plans, benefit accruals were frozen as of December 31, 2019.

Obligations and funded status

The funded status of the pension and other postretirement benefit plans as well as the amounts recognized in Accumulated other comprehensive income at December 31, 2020 and 2019 was as follows:

	Pension Benefit Plans				Other Postretirement Benefit Plans	
	2020		2019		**2020**	2019
(in millions of U.S. dollars)	**U.S. Plans**	**Non-U.S. Plans**	U.S. Plans	Non-U.S. Plans		
Benefit obligation, beginning of year	**$ 3,569**	**$ 1,042**	$ 3,092	$ 942	**$ 103**	$ 113
Service cost	**—**	**4**	49	11	**1**	—
Interest cost	**99**	**22**	118	27	**2**	4
Actuarial loss (gain)	**441**	**135**	443	124	**1**	3
Benefits paid	**(127)**	**(31)**	(121)	(39)	**(20)**	(17)
Curtailments	**—**	**(2)**	—	(4)	**—**	—
Settlements	**(15)**	**—**	(12)	(61)	**—**	—
Foreign currency revaluation and other	**—**	**29**	—	42	**(1)**	—
Benefit obligation, end of year	**$ 3,967**	**$ 1,199**	$ 3,569	$ 1,042	**$ 86**	$ 103
Plan assets at fair value, beginning of year	**$ 3,301**	**$ 1,141**	$ 2,784	$ 1,008	**$ 152**	$ 143
Actual return on plan assets	**563**	**126**	636	169	**6**	9
Employer contributions	**17**	**19**	14	16	**1**	—
Benefits paid	**(127)**	**(31)**	(121)	(39)	**(39)**	—
Settlements	**(15)**	**—**	(12)	(61)	**—**	—
Foreign currency revaluation and other	**—**	**29**	—	48	**—**	—
Plan assets at fair value, end of year	**$ 3,739**	**$ 1,284**	$ 3,301	$ 1,141	**$ 120**	$ 152
Funded status at end of year	**$ (228)**	**$ 85**	$ (268)	$ 99	**$ 34**	$ 49
Amounts recognized in Accumulated other comprehensive income, not yet recognized in net periodic cost (benefit):						
Net actuarial loss (gain)	**$ 78**	**$ 163**	$ (21)	$ 110	**$ (5)**	$ (3)
Prior service cost (benefit)	**—**	**9**	—	10	**(31)**	(114)
Total	**$ 78**	**$ 172**	$ (21)	$ 120	**$ (36)**	$ (117)

For the U.S. pension plans, the $441 million and $443 million actuarial loss experienced in 2020 and 2019, respectively, was principally driven by the decrease in the discount rate from the respective prior year.

The accumulated benefit obligation for the pension benefit plans was $5.1 billion and $4.6 billion at December 31, 2020 and 2019, respectively. The accumulated benefit obligation is the present value of pension benefits earned as of the measurement date based on employee service and compensation prior to that date. It differs from the pension (projected) benefit obligation in the table above in that the accumulated benefit obligation includes no assumptions regarding future compensation levels.

The net components of the funded status of the pension and other postretirement benefit plans are included in Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets.

Chubb's funding policy is to contribute amounts that meet regulatory requirements plus additional amounts determined based on actuarial valuations, market conditions and other factors. All benefit plans satisfy minimum funding requirements of the Employee Retirement Income Security Act of 1974 (ERISA).

13. Postretirement benefits

Chubb provides postretirement benefits to eligible employees and their dependents through various defined contribution plans sponsored by Chubb. In addition, for certain employees, Chubb sponsors other postretirement benefit plans, and prior to 2020, Chubb sponsored defined benefit pension plans.

Defined contribution plans (including 401(k))
Under these plans, employees' contributions may be supplemented by Chubb matching contributions based on the level of employee contribution. These contributions are invested at the election of each employee in one or more of several investment portfolios offered by a third-party investment advisor. Expenses for these plans totaled $211 million, $171 million, and $171 million for the years ended December 31, 2020, 2019, and 2018, respectively.

Defined benefit pension plans
We maintain non-contributory defined benefit pension plans that cover certain employees located in the U.S., U.K., Canada, and various other statutorily required countries. We account for pension benefits using the accrual method. Benefits under these plans are based on employees' years of service and compensation during final years of service. All underlying plans are subject to periodic actuarial valuations by qualified actuarial firms using actuarial models to calculate the expense and liability for each plan. We use December 31 as the measurement date for our defined benefit pension plans.

Under the Chubb Corp plans, prior to 2001, benefits were generally based on an employee's years of service and average compensation during the last five years of employment. Effective January 1, 2001, the formula for providing pension benefits was changed from the final average pay formula to a cash balance formula. Under the cash balance formula, a notional account is established for each employee, which is credited semi-annually with an amount equal to a percentage of eligible compensation based on age and years of service plus interest based on the account balance. Chubb Corp employees hired prior to 2001 will generally be eligible to receive vested benefits based on the higher of the final average pay or cash balance formulas.

Other postretirement benefit plans
Our assumption of Chubb Corp's other postretirement benefit plans, principally healthcare and life insurance, covers retired employees, their beneficiaries, and covered dependents. Healthcare coverage is contributory. Retiree contributions vary based upon the retiree's age, type of coverage, and years of service requirements. Life insurance coverage is non-contributory. Chubb funds a portion of the healthcare benefits obligation where such funding can be accomplished on a tax-effective basis. Benefits are paid as covered expenses are incurred.

Amendments to U.S. qualified and excess pension plans and U.S. retiree healthcare plan
On October 31, 2016, we harmonized and amended several of our U.S. retirement programs to create a unified retirement savings program. In 2020, we transitioned from a traditional defined benefit pension program that had been in effect for certain employees to a defined contribution program. Additionally, after 2025, we plan to eliminate a subsidized U.S. retiree healthcare and life insurance plan that had been in place for certain employees. Both amendments required a remeasurement of the plan assets and benefit obligations with updated assumptions, including discount rates and the expected return on assets. The amendment of the retiree healthcare plan resulted in a reduction in the obligation of $383 million, of which $410 million will be amortized as a reduction to expense through 2021 as it relates to benefits already accrued. For the years ended December 31, 2020, 2019, and 2018, $79 million, $79 million, and $80 million, respectively, were amortized as a reduction to expense. At December 31, 2020, the remaining curtailment benefit balance was $26 million which will be amortized as a reduction to expense through June 2021.

The following table presents a roll-forward of our restricted stock awards. Included in the roll-forward below are 27,679 restricted stock awards, 19,019 restricted stock awards, and 20,784 restricted stock awards that were granted to non-management directors during the years ended December 31, 2020, 2019, and 2018, respectively:

	Service-based Restricted Stock Awards and Restricted Stock Units		Performance-based Restricted Stock Awards and Restricted Stock Units	
	Number of Shares	Weighted-Average Grant-Date Fair Value	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested restricted stock, December 31, 2017	4,709,442	$ 121.16	975,497	$ 118.28
Granted	1,326,979	$ 142.76	180,065	$ 143.07
Vested	(2,545,090)	$ 114.83	(244,332)	$ 103.03
Forfeited	(196,482)	$ 131.06	—	$ —
Unvested restricted stock, December 31, 2018	3,294,849	$ 134.17	911,230	$ 127.27
Granted	1,492,900	$ 134.38	212,059	$ 133.90
Vested	(1,292,864)	$ 129.18	(196,640)	$ 115.62
Forfeited	(200,875)	$ 135.98	(50,437)	$ 132.36
Unvested restricted stock, December 31, 2019	3,294,010	$ 136.20	876,212	$ 131.16
Granted	**1,425,667**	**$ 148.56**	**186,291**	**$ 151.14**
Vested	**(1,304,308)**	**$ 134.02**	**(490,185)**	**$ 125.66**
Forfeited	**(152,074)**	**$ 140.72**	—	$ —
Unvested restricted stock, December 31, 2020	**3,263,295**	**$ 142.32**	**572,318**	**$ 142.38**

Prior to 2009, legacy ACE granted restricted stock units with a 1-year vesting period to non-management directors. Delivery of Common Shares on account of these restricted stock units to non-management directors is deferred until after the date of the non-management directors' termination from the Board. Legacy Chubb Corp historically allowed directors and certain key employees of Chubb Corp and its subsidiaries to defer a portion of their compensation earned with respect to services performed in the form of deferred stock units. In addition, legacy Chubb Corp provided supplemental retirement benefits for certain employees through its Defined Contribution Excess Benefit Plan in the form of deferred shares of stock. The minimum vesting period under these legacy Chubb Corp deferred plans was 1-year and the maximum was 3-years. Employees and directors had the option to elect to receive their awards at a future specified date or upon their termination of service with Chubb. At December 31, 2020, there were 166,624 deferred restricted stock units.

ESPP

The ESPP gives participating employees the right to purchase Common Shares through payroll deductions during consecutive subscription periods at a purchase price of 85 percent of the fair value of a Common Share on the exercise date (Purchase Price). Annual purchases by participants are limited to the number of whole shares that can be purchased by an amount equal to ten percent of the participant's compensation or $25,000, whichever is less. The ESPP has two six-month subscription periods each year, the first of which runs between January 1 and June 30 and the second of which runs between July 1 and December 31. The amounts collected from participants during a subscription period are used on the exercise date to purchase full shares of Common Shares. An exercise date is generally the last trading day of a subscription period. The number of shares purchased is equal to the total amount, at the exercise date, collected from the participants through payroll deductions for that subscription period, divided by the Purchase Price, rounded down to the next full share. Participants may withdraw from an offering before the exercise date and obtain a refund of amounts withheld through payroll deductions. Pursuant to the provisions of the ESPP, during the years ended December 31, 2020, 2019, and 2018, employees paid $45 million, $41 million, and $37 million to purchase 383,751 shares, 321,800 shares, and 347,116 shares, respectively.

the expected life assumption and (b) implied volatility derived from Chubb's publicly traded options. For year 2018, expected volatility was calculated as a blend of (a) historical volatility based on daily closing prices over a period equal to the expected life assumption, (b) long-term historical volatility based on daily closing prices over the period from Chubb's initial public trading date through the most recent quarter, and (c) implied volatility derived from Chubb's publicly traded options.

The following table presents a roll-forward of Chubb's stock options:

(Intrinsic Value in millions of U.S. dollars)	Number of Options	Weighted-Average Exercise Price	Weighted-Average Fair Value	Total Intrinsic Value
Options outstanding, December 31, 2017	10,433,316	$ 99.20		
Granted	1,842,690	$ 143.07	$ 29.71	
Exercised	(1,065,384)	$ 73.57		$ 71
Forfeited and expired	(202,900)	$ 133.92		
Options outstanding, December 31, 2018	11,007,722	$ 108.25		
Granted	2,073,940	$ 133.90	$ 18.76	
Exercised	(1,944,604)	$ 84.13		$ 122
Forfeited and expired	(251,801)	$ 136.87		
Options outstanding, December 31, 2019	10,885,257	$ 116.79		
Granted	**1,958,279**	**$ 150.10**	**$ 19.89**	
Exercised	**(1,158,633)**	**$ 86.90**		**$ 76**
Forfeited and expired	**(206,720)**	**$ 138.77**		
Options outstanding, December 31, 2020	**11,478,183**	**$ 125.09**		**$ 331**
Options exercisable, December 31, 2020	**7,792,343**	**$ 116.35**		**$ 293**

The weighted-average remaining contractual term was 6.0 years for stock options outstanding and 4.8 years for stock options exercisable at December 31, 2020. Cash received from the exercise of stock options for the year ended December 31, 2020 was $100 million.

Restricted stock and restricted stock units
Grants of restricted stock and restricted stock units awarded under both the 2004 LTIP and 2016 LTIP typically have a 4-year vesting period, subject to vesting as to one-quarter of the award each anniversary of grant. Restricted stock and restricted stock units are granted at market close price on the day of grant. Each restricted stock unit represents our obligation to deliver to the holder one Common Share upon vesting.

Chubb also grants restricted stock awards to non-management directors which vest at the following year's annual general meeting.

Chubb's 2020 share-based compensation expense includes a portion of the cost related to the restricted stock granted in the years 2016 through 2020.

group. Shares representing target awards and premium awards are issued when the awards are approved and are subject to forfeiture if applicable performance criteria are not met at the end of the 3-year performance period. Prior to January 2017, performance-based restricted stock awards had a 4-year vesting period with the potential to vest as to a portion each year, and excluded the P&C combined ratio and TSR additional vesting criteria.

Under the 2016 LTIP, 19,500,000 Common Shares are authorized to be issued. This is in addition to any shares that have not been delivered pursuant to the 2004 LTIP and remain available for grant pursuant to the 2004 LTIP and includes any shares covered by awards granted under the 2004 LTIP that have forfeited, expired or canceled after the effective date of the 2016 LTIP. At December 31, 2020, a total of 7,576,239 shares remain available for future issuance under the 2016 LTIP, which includes shares canceled or forfeited from the 2004 LTIP, in addition to common shares that were previously registered and authorized to be issued.

Under the Employee Stock Purchase Plan (ESPP), 6,500,000 shares are authorized to be issued. At December 31, 2020, a total of 1,402,017 shares remain available for issuance under the ESPP.

Chubb generally issues Common Shares for the exercise of stock options, restricted stock, and purchases under the ESPP from Common Shares in treasury.

The following table presents pre-tax and after-tax share-based compensation expense:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Stock options and shares issued under ESPP:			
Pre-tax	**$ 45**	$ 42	$ 50
After-tax [1]	**$ 38**	$ 39	$ 40
Restricted stock:			
Pre-tax	**$ 210**	$ 224	$ 235
After-tax [1]	**$ 164**	$ 180	$ 178

[1] *The windfall tax benefit recorded to income tax expense in the Consolidated statement of operations was $10 million, $12 million, and $19 million for the years ended* December 31, 2020, 2019, and 2018, respectively.

Unrecognized compensation expense related to the unvested portion of Chubb's employee share-based awards of restricted stock, restricted stock units, and stock options was $199 million at December 31, 2020 and is expected to be recognized over a weighted-average period of approximately 1 year.

Stock options

Both incentive and non-qualified stock options are principally granted 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 vest in equal annual installments over the respective vesting period, which is also the requisite service period.

Chubb's 2020 share-based compensation expense includes a portion of the cost related to the 2017 through 2020 stock option grants. Stock option fair value was estimated on the grant date using the Black-Scholes option-pricing model that uses the weighted-average assumptions noted below:

	Year Ended December 31		
	2020	2019	2018
Dividend yield	**2.1 %**	2.2 %	2.0 %
Expected volatility	**18.0 %**	16.0 %	23.2 %
Risk-free interest rate	**1.2 %**	2.6 %	2.7 %
Expected life	**5.7 years**	5.7 years	5.7 years

The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. The expected life (estimated period of time from grant to exercise date) is estimated using the historical exercise behavior of employees. For years 2020 and 2019, expected volatility is calculated as a blend of (a) historical volatility based on daily closing prices over a period equal to

c) Chubb Limited securities repurchases

From time to time, we repurchase shares as part of our capital management program and to partially offset potential dilution from the exercise of stock options and the granting of restricted stock under share-based compensation plans. The Board has authorized share repurchase programs as follows:

- $1.0 billion of Chubb Common Shares from January 1, 2018 through December 31, 2018
- $1.5 billion of Chubb Common Shares from December 1, 2018 through December 31, 2019
- $1.5 billion of Chubb Common Shares from November 21, 2019 through December 31, 2020
- $1.5 billion of Chubb Common Shares from November 19, 2020 through December 31, 2021

Subsequently, 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.

Share repurchases may be in the open market, in privately negotiated transactions, block trades, accelerated repurchases and through option or other forward transactions.

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

	Year Ended December 31			January 1, 2021 through
(in millions of U.S. dollars, except share data)	**2020**	2019	2018	February 24, 2021
Number of shares repurchased	**3,584,150**	10,442,238	7,719,035	1,971,000
Cost of shares repurchased [1]	**$ 516**	$ 1,531	$ 1,021	$ 327

[1] On April 22, 2020, we suspended share repurchases, given the economic environment and to preserve capital for both risk and opportunity. Subsequently, we announced and then resumed share repurchases on October 29, 2020.

d) General restrictions

The holders of the Common Shares are entitled to receive dividends as approved by the shareholders. Holders of Common Shares are allowed one vote per share provided that, if the controlled shares of any shareholder constitute ten percent or more of the outstanding Common Shares of Chubb, only a fraction of the vote will be allowed so as not to exceed ten percent in aggregate. Entry of acquirers of Common Shares as shareholders with voting rights in the share register may be refused if it would confer voting rights with respect to ten percent or more of the registered share capital recorded in the commercial register.

12. Share-based compensation

Chubb has share-based compensation plans which currently provide the Board the ability to grant awards of stock options, restricted stock, and restricted stock units to its employees and members of the Board.

In May 2016, our shareholders approved the Chubb Limited 2016 Long-Term Incentive Plan (the 2016 LTIP), which replaced both the ACE Limited 2004 LTIP (the 2004 LTIP) and The Chubb Corporation Long-Term Incentive Plan (2014). The 2016 LTIP is substantially similar to the 2004 LTIP in its operation and the types of awards that may be granted. Under the 2016 LTIP, Common Shares of Chubb were authorized to be issued pursuant to awards made as stock options, stock appreciation rights, performance shares, performance units, restricted stock, and restricted stock units.

Chubb principally issues restricted stock grants and stock options on a graded vesting schedule, with equal percentages of the award subject to vesting over a number of years (typically three or four). Chubb recognizes compensation cost for vesting of restricted stock and stock option grants with only service conditions on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award were, in-substance, multiple awards. We incorporate an estimate of future forfeitures in determining compensation cost for both grants of restricted stock and stock options.

In addition, Chubb grants performance-based restricted stock to certain executives that vest based on certain performance criteria as compared to a defined group of peer companies. Performance-based stock awards comprise target awards and premium awards that cliff vest at the end of a 3-year performance period based on both our tangible book value (shareholders' equity less goodwill and intangible assets, net of tax) per share growth and P&C combined ratio compared to our peer group. Premium awards are subject to an additional vesting provision based on total shareholder return (TSR) compared to our peer

Dividend distributions
Under Swiss corporate law, dividends must be stated in Swiss francs though dividend payments are made by Chubb in U.S. dollars. We issue dividends without subjecting them to withholding tax by way of distributions from capital contribution reserves and payment out of free reserves.

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

	Year Ended December 31					
	2020		2019		2018	
	CHF	**USD**	CHF	USD	CHF	USD
Total dividend distributions per common share	**2.89**	**$ 3.09**	2.94	$ 2.98	2.84	$ 2.90

b) Shares issued, outstanding, authorized, and conditional

	Year Ended December 31		
	2020	2019	2018
Common Shares authorized and issued, beginning of year	**479,783,864**	479,783,864	479,783,864
Cancellation of treasury shares	**(2,178,600)**	—	—
Common Shares authorized and issued, end of year	**477,605,264**	479,783,864	479,783,864
Common Shares in treasury, beginning of year (at cost)	**(27,812,297)**	(20,580,486)	(15,950,685)
Net shares issued under employee share-based compensation plans	**2,345,208**	3,210,427	3,089,234
Shares repurchased	**(3,584,150)**	(10,442,238)	(7,719,035)
Cancellation of treasury shares	**2,178,600**	—	—
Common Shares in treasury, end of year (at cost)	**(26,872,639)**	(27,812,297)	(20,580,486)
Common Shares outstanding, end of year	**450,732,625**	451,971,567	459,203,378

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 our May 2020 annual general meeting, our shareholders approved the cancellation of 2,178,600 shares purchased under our share repurchase program during the period beginning September 23, 2019 and ending December 31, 2019. The capital reduction by cancellation of shares was subject to publication requirements and a two-month waiting period in accordance with Swiss law and became effective August 3, 2020.

Authorized share capital for general purposes under Swiss law
In accordance with Swiss law, the Board has shareholder-approved authority as set forth in the Articles of Association to increase Chubb's share capital from time to time until May 20, 2022, by the issuance for general purposes of up to 200,000,000 fully paid up Common Shares, with a par value equal to the par value of Chubb's Common Shares as set forth in the Articles of Association at the time of any such issuance. Any such increases would be subject to Swiss rules and procedure.

Conditional share capital for bonds and similar debt instruments
Chubb's share capital may be increased through the issuance of a maximum of 33,000,000 fully paid up Common Shares (with a par value of CHF 24.15 as of December 31, 2020) through the exercise of conversion and/or option or warrant rights granted in connection with bonds, notes, or similar instruments, issued or to be issued by Chubb, including convertible debt instruments.

Conditional share capital for employee benefit plans
Chubb's share capital may be increased through the issuance of a maximum of 25,410,929 fully paid up Common Shares (with a par value of CHF 24.15 as of December 31, 2020) in connection with the exercise of option rights granted to any employee of Chubb, director or other person providing services to Chubb.

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.

i) Lease commitments

At December 31, 2020 and 2019, the right-of-use asset was $473 million and $551 million, respectively, recorded within Other assets on the Consolidated balance sheets, and the lease liability was $517 million and $603 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. As of December 31, 2020, the weighted average remaining lease term and weighted average discount rate for the operating leases was 4.9 years and 2.6 percent, respectively. Rent expense was $152 million, $171 million, and $169 million for the years ended December 31, 2020, 2019, and 2018, respectively.

Future minimum lease payments under the operating leases are expected to be as follows:

For the years ending December 31 (in millions of U.S. dollars)		
Undiscounted cash flows:		
2021	$	150
2022		123
2023		96
2024		68
2025		38
Thereafter		75
Total undiscounted lease payments	$	550
Less: Present value adjustment		33
Net lease liabilities reported as of December 31, 2020	$	517

11. Shareholders' equity

a) Common Shares

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, we are generally prohibited from issuing Common Shares below their par value. If there were a need to raise common equity at a time when the trading price of Chubb's Common Shares is below par value, we would need in advance to obtain shareholder approval to decrease the par value of the Common Shares.

Dividend approval

At our May 2019 and 2018 annual general meetings, our shareholders approved annual dividends for the following year of up to $3.00 per share and $2.92 per share, respectively, which were paid in four quarterly installments of $0.75 per share and $0.73 per share, respectively, at dates determined by the Board of Directors (Board) after the annual general meeting by way of a distribution from capital contribution reserves, transferred to free reserves for payment.

At our May 2020 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.12 per share, expected to be paid in four quarterly installments of $0.78 per share after the annual general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment. The Board will determine the record and payment dates at which the annual dividend may be paid until the date of the 2021 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion. The first three quarterly installments each of $0.78 per share, have been distributed by the Board as expected.

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.

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

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Investment and embedded derivative instruments:			
Foreign currency forward contracts	**$ 65**	$ (79)	$ 3
Interest rate swaps	**—**	(270)	(115)
All other futures contracts, options, and equities	**16**	(88)	39
Convertible securities [1]	**—**	2	(2)
Total investment and embedded derivative instruments	**$ 81**	$ (435)	$ (75)
GLB and other derivative instruments:			
GLB	**$ (202)**	$ (4)	$ (248)
Futures contracts on equities [2]	**(108)**	(138)	(4)
Other	**1**	(8)	(3)
Total GLB and other derivative instruments	**$ (309)**	$ (150)	$ (255)
	$ (228)	$ (585)	$ (330)

[1] Includes embedded derivatives.
[2] Related to GMDB and GLB book of business.

d) Concentrations of credit risk
Our investment portfolio is managed following prudent standards of diversification. Specific provisions limit the allowable holdings of a single issue and issuer. We believe that there are no significant concentrations of credit risk associated with our investments. Our three largest corporate exposures by issuer at December 31, 2020, were Wells Fargo & Co., Bank of America Corp, and JP Morgan Chase & Co. Our largest exposure by industry at December 31, 2020 was financial services.

We market our insurance and reinsurance worldwide primarily through insurance and reinsurance brokers. We assume a degree of credit risk associated with brokers with whom we transact business. For the years ended December 31, 2020, 2019 and 2018, approximately 12 percent, 12 percent, and 10 percent, respectively, of our gross premiums written was generated from or placed by Marsh & McLennan Companies, Inc. This entity is a large, well-established company, and there are no indications that it is financially troubled at December 31, 2020. No other broker or one insured accounted for more than 10 percent of our gross premiums written for these years.

e) Fixed maturities
At December 31, 2020, we have commitments to purchase fixed income securities of $605 million over the next several years.

f) Other investments
At December 31, 2020, included in Other investments in the Consolidated balance sheet are investments in limited partnerships and partially-owned investment companies with a carrying value of $6.5 billion. In connection with these investments, we have commitments that may require funding of up to $3.2 billion over the next several years. At December 31, 2019, these investments had a carrying value of $4.7 billion with a commitment that may require funding of up to $3.3 billion.

g) Letters of credit
We have access to capital markets and to credit facilities with letter of credit capacity of $4.0 billion with a sub-limit of $1.9 billion for revolving credit. Our existing credit facilities have remaining terms expiring through October 2022. At December 31, 2020, our LOC usage was $1.7 billion.

h) 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

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	
	December 31, 2020	December 31, 2019
(in millions of U.S. dollars)	Overnight and Continuous	
Collateral held under securities lending agreements:		
Cash	**$ 551**	$ 346
U.S. Treasury / Agency	**148**	6
Non-U.S.	**1,032**	595
Corporate and asset-backed securities	**30**	5
Mortgage-backed securities	**4**	18
Equity securities	**79**	24
	$ 1,844	$ 994
Gross amount of recognized liability for securities lending payable	**$ 1,844**	$ 994

At December 31, 2020 and 2019, our repurchase agreement obligations of $1,405 million and $1,416 million, respectively, were fully collateralized. In contrast to securities lending programs, the use of cash received is not restricted for the repurchase obligations. The fair value of the underlying securities sold remains in Fixed maturities available for sale, and the repurchase agreement obligation is recorded in Repurchase agreements in the Consolidated balance sheets.

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

	Remaining contractual maturity							
	December 31, 2020				December 31, 2019			
(in millions of U.S. dollars)	**30-90 Days**	**Greater than 90 Days**	**Total**		Up to 30 Days	30-90 Days	Greater than 90 Days	Total
Collateral pledged under repurchase agreements:								
Cash	**$ —**	**$ 4**	**$ 4**		$ 2	$ —	$ —	$ 2
U.S. Treasury / Agency	**—**	**106**	**106**		107	—	—	107
Mortgage-backed securities	**481**	**871**	**1,352**		399	476	480	1,355
	$ 481	**$ 981**	**$ 1,462**		$ 508	$ 476	$ 480	$ 1,464
Gross amount of recognized liabilities for repurchase agreements			**$ 1,405**					$ 1,416
Difference [1]			**$ 57**					$ 48

[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

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

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:

		December 31, 2020			December 31, 2019		
		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)	$ 22	$ (49)	$ 2,807	$ 11	$ (78)	$ 2,579
Options/Futures contracts on notes, bonds, and equities	OA / (AP)	13	(3)	1,749	13	(15)	1,615
Convertible securities [1]	FM AFS / ES	9	—	11	4	—	5
		$ 44	$ (52)	$ 4,567	$ 28	$ (93)	$ 4,199
Other derivative instruments:							
Futures contracts on equities [2]	OA / (AP)	$ —	$ (17)	$ 709	$ —	$ (13)	$ 613
Other	OA / (AP)	—	—	16	2	—	63
		$ —	$ (17)	$ 725	$ 2	$ (13)	$ 676
GLB [3]	(AP)	$ —	$ (1,089)	$ 1,658	$ —	$ (897)	$ 1,510

[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 December 31, 2020 and 2019, net derivative liabilities of $30 million and $75 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.

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.

b) Short-term debt
Short-term debt comprises the current maturities of our long-term debt instruments described below. These short-term debt instruments were reclassified from long-term debt and are reflected in the table above. Chubb INA Holdings Inc.'s (Chubb INA) $1,300 million of 2.3 percent senior notes due November 2020 was paid upon maturity.

c) Long-term debt
The $100 million of 8.875 percent debentures due August 2029 do not have an early redemption option. The remaining Chubb INA senior notes and debentures, including the $1,000 million of 1.375 percent senior notes issued September 2020, and capital securities are redeemable at any time at Chubb INA's option subject to the provisions described in the table above. A "make-whole" premium is the present value of the remaining principal and interest discounted at the applicable U.S. Treasury rate. These debt securities are also redeemable at par plus accrued and unpaid interest in the event of certain changes in tax law.

The senior notes and debentures do not have the benefit of any sinking fund and are guaranteed on a senior basis by Chubb Limited and they rank equally with all of Chubb's other senior obligations. They also contain customary limitations on lien provisions as well as customary events of default provisions which, if breached, could result in the accelerated maturity of such senior debt.

d) Trust preferred securities
In March 2000, ACE Capital Trust II, a Delaware statutory business trust, publicly issued $300 million of 9.7 percent Capital Securities (the Capital Securities) due to mature in April 2030. At the same time, Chubb INA purchased $9.2 million of common securities of ACE Capital Trust II. The sole assets of ACE Capital Trust II consist of $309 million principal amount of 9.7 percent Junior Subordinated Deferrable Interest Debentures (the Subordinated Debentures) issued by Chubb INA due to mature in April 2030.

Distributions on the Capital Securities are payable semi-annually and may be deferred for up to ten consecutive semi-annual periods (but no later than April 1, 2030). Any deferred payments would accrue interest compounded semi-annually if Chubb INA defers interest on the Subordinated Debentures. Interest on the Subordinated Debentures is payable semi-annually. Chubb INA may defer such interest payments (but no later than April 1, 2030), with such deferred payments accruing interest compounded semi-annually. The Capital Securities and the ACE Capital Trust II Common Securities will be redeemed upon repayment of the Subordinated Debentures.

Chubb Limited has guaranteed, on a subordinated basis, Chubb INA's obligations under the Subordinated Debentures, and distributions and other payments due on the Capital Securities. These guarantees, when taken together with Chubb's obligations under expense agreements entered into with ACE Capital Trust II, provide a full and unconditional guarantee of amounts due on the Capital Securities.

10. 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.

9. Debt

(in millions of U.S. dollars)	December 31 2020	December 31 2019	Early Redemption Option
Repurchase agreements (weighted average interest rate of 0.3% in 2020 and 2.2% in 2019)	**$ 1,405**	$ 1,416	None
Short-term debt			
Chubb INA:			
$1,300 million 2.3% due November 2020	**$ —**	$ 1,298	Make-whole premium plus 15 bps
Other short-term debt 2.75% due September 2020	**—**	1	None
Total short-term debt	**$ —**	$ 1,299	
Long-term debt			
Chubb INA:			
$1,000 million 2.875% senior notes due November 2022	**$ 998**	$ 997	Make-whole premium plus 20 bps
$475 million 2.7% senior notes due March 2023	**474**	473	Make-whole premium plus 10 bps
$700 million 3.35% senior notes due May 2024	**698**	697	Make-whole premium plus 15 bps
€700 million 0.3% senior notes due December 2024	**841**	776	Make-whole premium plus 15 bps
$800 million 3.15% senior notes due March 2025	**797**	796	Make-whole premium plus 15 bps
$1,500 million 3.35% senior notes due May 2026	**1,493**	1,492	Make-whole premium plus 20 bps
€575 million 0.875% senior notes due June 2027	**691**	635	Make-whole premium plus 20 bps
€900 million 1.55% senior notes due March 2028	**1,079**	993	Make-whole premium plus 15 bps
$100 million 8.875% debentures due August 2029	**100**	100	None
€700 million 0.875% senior notes due December 2029	**840**	775	Make-whole premium plus 20 bps
$1,000 million 1.375% senior notes due September 2030	**991**	—	Make-whole premium plus 15 bps
€575 million 1.4% senior notes due June 2031	**687**	633	Make-whole premium plus 25 bps
$200 million 6.8% debentures due November 2031	**242**	246	Make-whole premium plus 25 bps
$300 million 6.7% senior notes due May 2036	**298**	297	Make-whole premium plus 20 bps
$800 million 6.0% senior notes due May 2037	**945**	953	Make-whole premium plus 20 bps
€900 million 2.5% senior notes due March 2038	**1,077**	992	Make-whole premium plus 25 bps
$600 million 6.5% senior notes due May 2038	**743**	751	Make-whole premium plus 30 bps
$475 million 4.15% senior notes due March 2043	**470**	470	Make-whole premium plus 15 bps
$1,500 million 4.35% senior notes due November 2045	**1,484**	1,483	Make-whole premium plus 25 bps
Total long-term debt	**$ 14,948**	$ 13,559	
Trust preferred securities			
Chubb INA capital securities due April 2030	**$ 308**	$ 308	Redemption prices[1]

(1) Redemption prices are equal to accrued and unpaid interest to the redemption date plus the greater of (i) 100 percent of the principal amount thereof, or (ii) sum of present value of scheduled payments of principal and interest on the capital securities from the redemption date to April 1, 2030.

a) Repurchase agreements

Chubb has executed repurchase agreements with certain counterparties under which Chubb agreed to sell securities and repurchase them at a future date for a predetermined price.

made a settlement of a liability in January 2021 for $23 million, including interest. It is reasonably possible that over the next twelve months, that the amount of unrecognized tax benefits may change further resulting from the re-evaluation of unrecognized tax benefits arising from examinations by taxing authorities and the lapses of statutes of limitations.

Chubb recognizes accruals for interest and penalties, if any, related to unrecognized tax benefits in income tax expense in the Consolidated statements of operations. Tax-related interest expense and penalties reported in the Consolidated statements of operations were $8 million at December 31, 2020, $5 million at December 31, 2019, and were immaterial for 2018. Liabilities for tax-related interest and penalties in our Consolidated balance sheets were $16 million and $8 million at December 31, 2020 and 2019, respectively.

In March 2017, the IRS commenced its field examination of Chubb Group Holdings' U.S. Federal income tax returns for 2014 and 2015. The Chubb Group Holdings examination for 2014 and 2015 tax years is still ongoing with no material adjustments proposed to date. In July 2020, the IRS commenced its field examination of Chubb Group Holdings' U.S. Federal income tax returns for 2016, 2017 and 2018. As a multinational company, we also have examinations under way in several foreign jurisdictions. With few exceptions, Chubb is no longer subject to income tax examinations for years prior to 2010.

The following table summarizes tax years open for examination by major income tax jurisdiction:

At December 31, 2020	
Australia	2014 - 2020
Canada	2012 - 2020
France	2018 - 2020
Germany	2015 - 2020
Italy	2010 - 2020
Mexico	2014 - 2020
Spain	2012 - 2020
Switzerland	2016 - 2020
United Kingdom	2015 - 2020
United States	2014 - 2020

The following table presents the components of net deferred tax assets and liabilities:

(in millions of U.S. dollars)	December 31 2020	December 31 2019
Deferred tax assets:		
Loss reserve discount	**$ 884**	$ 826
Unearned premiums reserve	**496**	519
Foreign tax credits	**222**	247
Provision for uncollectible balances	**46**	37
Loss carry-forwards	**123**	143
Debt related amounts	**69**	74
Compensation related amounts	**281**	261
Cumulative translation adjustments	**120**	33
Investments	**75**	—
Lease liability	**121**	140
Total deferred tax assets	**2,437**	2,280
Deferred tax liabilities:		
Deferred policy acquisition costs	**522**	588
Other intangible assets, including VOBA	**1,425**	1,468
Un-remitted foreign earnings	**77**	73
Investments	**—**	40
Unrealized appreciation on investments	**957**	470
Depreciation	**123**	157
Lease right-of-use asset	**111**	129
Other, net	**31**	45
Total deferred tax liabilities	**3,246**	2,970
Valuation allowance	**83**	114
Net deferred tax liabilities	**$ (892)**	$ (804)

The valuation allowance of $83 million and $114 million at December 31, 2020 and 2019, respectively, reflects management's assessment, based on available information, that it is more likely than not that a portion of the deferred tax assets will not be realized due to the inability of certain non-U.S. subsidiaries to generate sufficient taxable income. Adjustments to the valuation allowance are made when there is a change in management's assessment of the amount of deferred tax assets that are realizable.

At December 31, 2020, Chubb has net operating loss carry-forwards of $407 million which, if unused, will expire starting in 2021, and a foreign tax credit carry-forward in the amount of $222 million which, if unused, will expire starting in 2026.

The following table presents a reconciliation of the beginning and ending amount of gross unrecognized tax benefits:

(in millions of U.S. dollars)	December 31 2020	December 31 2019
Balance, beginning of year	**$ 47**	$ 14
Additions based on tax positions related to the current year	**5**	12
Additions based on tax positions related to prior years	**24**	23
Reductions for the lapse of the applicable statutes of limitations	**—**	(2)
Balance, end of year	**$ 76**	$ 47

At December 31, 2020 and 2019, the gross unrecognized tax benefits of $76 million and $47 million, respectively, can be reduced by $31 million and $19 million, respectively, associated with foreign tax credits. The net amounts of $45 million and $28 million at December 31, 2020 and 2019, respectively, if recognized, would favorably affect the effective tax rate. We

would apply. Currently, however, no withholding taxes are accrued with respect to such un-remitted earnings as management has no intention of remitting these earnings. Similarly, no taxes have been provided on the un-remitted earnings of certain foreign subsidiaries (Hong Kong and Korea life insurance companies) as management has no intention of remitting these earnings. The cumulative amount that would be subject to withholding tax, if distributed, as well as the determination of the associated tax liability are not practicable to compute; however, such amount would be material.

Certain international operations of Chubb are also subject to income taxes imposed by the jurisdictions in which they operate.

Chubb's domestic operations are in Switzerland, the jurisdiction where we are legally organized, incorporated, and registered. As a result of Swiss tax reform legislation effective in 2020, the Swiss tax rate increased from 7.83 percent in years 2018 and 2019 to 21.2 percent in 2020.

The following table presents pre-tax income and the related provision for income taxes:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Pre-tax income:			
Switzerland	**$ 350**	$ 440	$ 950
Outside Switzerland	**3,812**	4,809	3,707
Total pre-tax income	**$ 4,162**	$ 5,249	$ 4,657
Provision for income taxes			
Current tax expense:			
Switzerland	**$ 52**	$ 29	$ 89
Outside Switzerland	**876**	879	563
Total current tax expense	**928**	908	652
Deferred tax expense (benefit):			
Switzerland	**2**	11	3
Outside Switzerland	**(301)**	(124)	40
Total deferred tax expense (benefit)	**(299)**	(113)	43
Provision for income taxes	**$ 629**	$ 795	$ 695

The most significant jurisdictions contributing to the overall taxation of Chubb are calculated using the following rates in 2020: Switzerland 21.2 percent, U.S. 21.0 percent, U.K. 19.0 percent, and Bermuda 0.0 percent.

The following table presents a reconciliation of the difference between the provision for income taxes and the expected tax provision at the Swiss statutory income tax rate:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Expected tax provision at Swiss statutory tax rate	**$ 880**	$ 411	$ 365
Permanent differences:			
Taxes on earnings subject to rate other than Swiss statutory rate	**(337)**	376	372
Tax-exempt interest and dividends received deduction, net of proration	**(41)**	(49)	(75)
Net withholding taxes	**67**	40	33
Share-based compensation	**(10)**	(12)	(19)
Impact of 2017 Tax Act	**—**	—	(25)
Other	**70**	29	44
Provision for income taxes	**$ 629**	$ 795	$ 695

by, among other things, allowing Century to discount its liabilities, including certain asbestos related and environmental pollution liabilities and Century's reinsurance payable to active companies. For GAAP reporting purposes, intercompany reinsurance recoverables related to the XOL are eliminated upon consolidation.

While Chubb believes it has no legal obligation to fund Century losses above the XOL limit of coverage, Chubb's consolidated results would nevertheless continue to include any losses above the limit of coverage for so long as the Brandywine companies remain consolidated subsidiaries of Chubb.

Certain active Chubb companies are primarily liable for asbestos, environmental, and other exposures that they have reinsured to Century. Accordingly, if Century were to become insolvent and placed into rehabilitation or liquidation, some or all of the recoverables due to these active Chubb companies from Century could become uncollectible. At December 31, 2020 and 2019, the aggregate reinsurance recoverables owed by Century to certain active Chubb companies were approximately $1.6 billion and $1.5 billion, respectively, on an undiscounted basis. Chubb believes the active company intercompany reinsurance recoverables, which relate to direct liabilities payable over many years, are not impaired. At December 31, 2020 and 2019, Century's carried gross reserves (including reserves assumed from the active Chubb companies) were $2.1 billion and $1.8 billion, respectively. Should Century's loss reserves experience adverse development in the future and should Century be placed into rehabilitation or liquidation, the reinsurance recoverables due from Century to certain active Chubb companies would be payable only after the payment in full of certain expenses and liabilities, including administrative expenses and direct policy liabilities. Thus, the intercompany reinsurance recoverables would be at risk to the extent of the shortage of assets remaining to pay these recoverables.

Westchester Specialty – impact of NICO contracts on Chubb's run-off entities

As part of the Westchester Specialty acquisition in 1998, NICO provided a 75 percent pro-rata share of $1.0 billion of reinsurance protection on losses and loss adjustment expenses incurred on or before December 31, 1996, in excess of a retention of $721 million. At December 31, 2020, the remaining unused incurred limit under the Westchester NICO agreement was $372 million.

8. Taxation

Under Swiss law through December 31, 2020, a resident company is subject to income tax at the federal, cantonal, and communal levels that is levied on net worldwide income. Income attributable to permanent establishments or real estate located abroad is excluded from the Swiss tax base. Furthermore, participation relief (i.e., tax relief) is granted to Chubb Limited at the federal, cantonal, and communal level for qualifying dividend income and capital gains related to the sale of qualifying participations (i.e., subsidiaries). Chubb Limited is subject to an annual cantonal and communal capital tax on the taxable equity of Chubb Limited in Switzerland.

Chubb has two Swiss operating subsidiaries, an insurance company, Chubb Insurance (Switzerland) Limited and a reinsurance company, Chubb Reinsurance (Switzerland) Limited. Both are subject to federal, cantonal, and communal income tax and to annual cantonal and communal capital tax.

Under current Bermuda law, Chubb Limited and its Bermuda subsidiaries are not required to pay any taxes on income or capital gains. If a Bermuda law were enacted that would impose taxes on income or capital gains, Chubb Limited and the Bermuda subsidiaries have received an undertaking from the Minister of Finance in Bermuda that would exempt such companies from Bermudian taxation until March 2035.

Income from Chubb's operations at Lloyd's is subject to United Kingdom (U.K.) corporation income taxes. Lloyd's is required to pay U.S. income tax on U.S. connected income written by Lloyd's syndicates. Lloyd's has a closing agreement with the Internal Revenue Service (IRS) whereby the amount of tax due on this business is calculated by Lloyd's and remitted directly to the IRS. These amounts are then charged to the accounts of Chubb's Corporate Members in proportion to their participation in the relevant syndicates. Chubb's Corporate Members are subject to this arrangement but, as U.K. domiciled companies, will receive U.K. corporation tax credits for any U.S. income tax incurred up to the value of the equivalent U.K. corporation income tax charge on this income.

Chubb Group Holdings and its respective subsidiaries are subject to income taxes imposed by U.S. authorities and file a consolidated U.S. Federal income tax return. Should Chubb Group Holdings pay a dividend to Chubb Limited, withholding taxes

The A&E net loss reserves including allocated loss expense reserves and valuation allowance for uncollectible reinsurance at December 31, 2020 and 2019 shown in the table above is comprised of:

	December 31	
(in millions of U.S. dollars)	**2020**	2019
Brandywine operations	**$ 736**	$ 754
Westchester Specialty	**103**	117
Chubb Corp	**333**	381
Other, mainly Overseas General Insurance	**80**	74
Total	**$ 1,252**	$ 1,326

Brandywine Run-off entities – The Restructuring Plan and uncertainties relating to Chubb's ultimate Brandywine exposure

In 1996, the Pennsylvania Insurance Commissioner approved a plan to restructure INA Financial Corporation and its subsidiaries (the Restructuring) which included the division of Insurance Company of North America (INA) into two separate corporations:

(1) An active insurance company that retained the INA name and continued to write P&C business; and
(2) An inactive run-off company, now called Century Indemnity Company (Century).

As a result of the division, predominantly all A&E and certain other liabilities of INA were ascribed to Century and extinguished, as a matter of Pennsylvania law, as liabilities of INA.

As part of the Restructuring, most A&E liabilities of various U.S. affiliates of INA were reinsured to Century. Century and certain other run-off companies having A&E and other liabilities were contributed to Brandywine Holdings.

The U.S.-based Chubb INA companies assumed two contractual obligations in respect of the Brandywine operations in connection with the Restructuring: a surplus maintenance obligation in the form of the excess of loss (XOL) agreement and a dividend retention fund obligation.

XOL Agreement
In 1996, in connection with the Restructuring, a Chubb INA insurance subsidiary provided reinsurance coverage to Century in the amount of $800 million under an Aggregate Excess of Loss Reinsurance Agreement (XOL Agreement), triggerable if the statutory capital and surplus of Century falls below $25 million or if Century lacks liquid assets with which to pay claims as they become due.

Dividend Retention Fund
INA Financial Corporation established and funded a dividend retention fund (the Dividend Retention Fund) consisting of $50 million plus investment earnings. The full balance of the Dividend Retention Fund was contributed to Century as of December 31, 2002. Under the Restructuring Order, while any obligation to maintain the Dividend Retention Fund is in effect, to the extent dividends are paid by INA Holdings Corporation to its parent, INA Financial Corporation, and to the extent INA Financial Corporation then pays such dividends to INA Corporation, a portion of those dividends must be withheld to replenish the principal of the Dividend Retention Fund to $50 million. During 2020, 2019, 2018, 2011 and 2010, $250 million, $90 million, $50 million, $35 million and $15 million, respectively, were withheld from such dividends and deposited into the Dividend Retention Fund as a result of dividends paid up to the INA Corporation. Pursuant to a 2011 amendment to the Restructuring Order, capital contributions from the Dividend Retention Fund to Century are not required until the XOL Agreement has less than $200 million of capacity remaining on an incurred basis for statutory reporting purposes. The amount of the required capital contribution shall be the lesser of the amount necessary to restore the XOL Agreement remaining capacity to $200 million or the Dividend Retention Fund balance. In 2020 and 2019, capital contributions of $302 million and $64 million were made, respectively, from the Dividend Retention Fund to Century. The Dividend Retention Fund may not be terminated without prior written approval from the Pennsylvania Insurance Commissioner.

Effective December 31, 2004, Chubb INA contributed $100 million to Century in exchange for a surplus note. After giving effect to the contribution and issuance of the surplus note, the statutory surplus of Century at December 31, 2020 was $25 million and $573 million in statutory-basis losses have been ceded to the XOL Agreement on an inception-to-date basis. Century reports the amount ceded under the XOL Agreement in accordance with statutory accounting principles, which differ from GAAP

2018
Global Reinsurance experienced net favorable PPD of $50 million, representing 0.1 percent of the beginning consolidated net unpaid losses and loss expense reserves.

Corporate
2020
Corporate incurred adverse development of $433 million in long-tail lines, driven by the following principal changes:

- Adverse development of $254 million for U.S. child molestation claims, predominantly reviver statute-related;
- Adverse development of $106 million associated with asbestos and environmental liabilities, generally attributable to certain case specific incurred activity and higher than expected indemnity, expenses and defense costs on a limited number of accounts;
- Adverse development of $38 million on unallocated loss adjustment expenses due to run-off operating expenses paid and incurred in 2020 and $27 million from an increase in the provision for uncollectible reinsurance.

2019
Corporate incurred adverse development of $153 million in long-tail lines, driven by the following principal changes:

- Adverse development of $116 million driven principally by adverse development in asbestos and environmental liabilities due to the emergence of a limited number of excess accounts and somewhat greater than expected defense and indemnity costs (generally impacting larger modeled accounts); and
- Adverse development of $37 million on unallocated loss adjustment expenses due to run-off operating expenses paid and incurred in 2019.

2018
Corporate incurred adverse PPD of $45 million, representing 0.1 percent of the beginning consolidated net unpaid losses and loss expense reserves.

Asbestos and environmental (A&E)
Chubb's exposure to A&E claims principally arises out of liabilities acquired when it purchased Westchester Specialty in 1998, CIGNA's P&C business in 1999, and Chubb Corp in 2016. The following table presents a roll-forward of consolidated A&E loss reserves including allocated loss expense reserves for A&E exposures, and the valuation allowance for uncollectible paid and unpaid reinsurance recoverables:

	Asbestos		Environmental		Total		
(in millions of U.S. dollars)	Gross	Net	Gross	Net	Gross	Net	
Balance at December 31, 2017	$ 1,621	$ 1,051	$ 607	$ 476	$ 2,228	$ 1,527	
Incurred activity	136	75	101	(97)	237	(22)	(1)
Paid activity	(265)	(162)	(83)	104	(348)	(58)	
Balance at December 31, 2018	1,492	964	625	483	2,117	1,447	
Incurred activity	129	70	46	28	175	98	(1)
Paid activity	(162)	(118)	(142)	(101)	(304)	(219)	
Balance at December 31, 2019	1,459	916	529	410	1,988	1,326	
Incurred activity	**150**	**90**	**79**	**41**	**229**	**131**	(1)
Paid activity	**(258)**	**(133)**	**(91)**	**(72)**	**(349)**	**(205)**	
Balance at December 31, 2020	**$ 1,351**	**$ 873**	**$ 517**	**$ 379**	**$ 1,868**	**$ 1,252**	

(1) Excludes unallocated loss expenses and the net activity reflects third-party reinsurance other than the aggregate excess of loss reinsurance provided by National Indemnity Company (NICO) to Westchester Specialty (see Westchester Specialty section below).

- Net favorable development of $69 million in marine, driven by favorable loss emergence and claim-specific loss settlements across all regions in accident years 2012 through 2019; and
- Net favorable development of $21 million in A&H, driven by favorable development across Continental Europe, U.K. and Latin America primarily in accident years 2018 and 2019.

2019
Overseas General Insurance experienced net favorable PPD of $92 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 $68 million in long-tail business, primarily from:
  - Net favorable development of $101 million in casualty lines, including favorable development of $123 million in accident years 2015 and prior, due to lower than expected loss emergence mainly across primary lines in Continental Europe, U.K., and Asia Pacific, partially offset by adverse development of $22 million in accident years 2016 through 2018, primarily due to adverse attritional and large loss experience in Continental Europe; and
  - Net adverse development of $52 million in financial lines, including adverse development of $127 million in accident years 2016 through 2018, primarily due to adverse large loss experience in D&O in the U.K. and Asia Pacific, offset by favorable development of $75 million in accident years 2015 and prior, due to lower than expected loss emergence across most regions in D&O and Professional Indemnity.
- Net favorable of $24 million in short-tail business, primarily from:
  - Net favorable development of $45 million in A&H, driven by favorable development across Continental Europe, Latin America and Asia Pacific primarily in accident years 2017 and 2018;
  - Net favorable development of $36 million in marine, driven by favorable loss emergence and claim-specific loss settlements across most regions and several accident years, including favorable liability emergence and litigation settlements in accident years 2016 and prior;
  - Net adverse development of $23 million in construction, driven by adverse large loss experience in accident year 2018 for U.K. and Asia Pacific; and
  - Net adverse development of $27 million in Surety, driven by adverse large loss experience across Continental Europe and Latin America in accident years 2017 and 2018.

2018
Overseas General Insurance experienced net favorable PPD of $212 million, representing 0.4 percent of the beginning consolidated net unpaid losses and loss expense reserves.

Global Reinsurance
2020
Global Reinsurance experienced net favorable PPD of $29 million, which was the net result of several underlying favorable and adverse movements, none of which is significant individually or in the aggregate.

2019
Global Reinsurance experienced net favorable PPD of $29 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 $59 million in long-tail business, primarily in our auto, casualty, professional liability, medical malpractice, and workers' compensation lines primarily from treaty years 2013 and prior principally due to lower than expected loss emergence; and
- Net adverse development of $30 million in short-tail business, which included $44 million of adverse development on 2017 and 2018 natural catastrophe events.

North America Personal P&C Insurance
2020
North America Personal P&C Insurance incurred net adverse PPD of $63 million, which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net adverse development of $84 million in the homeowners product line, including valuables, mainly in accident years 2017 through 2019 due to higher than expected non-catastrophe loss emergence and adverse development arising from natural catastrophes in accident years 2017 and 2018; and

- Net favorable development of $22 million in the personal excess line, driven by favorable development mainly in the 2017 accident year, partially offset by adverse development in accident year 2019.

2019
North America Personal P&C Insurance incurred net favorable PPD of $95 million, which was the net result of several underlying favorable and adverse movements, and was driven by the following principal changes:

- Net favorable claim development of $132 million on the 2017 and 2018 natural catastrophes for all lines;

- Net favorable development of $26 million in our personal excess lines primarily impacting the 2016 accident year, due to lower than expected loss emergence and an increase in weighting towards experience-based methods, partly offset by adverse emergence in accident year 2015; and

- Net adverse development of $82 million in our homeowners lines, including valuables, arising from non-catastrophe loss emergence, mainly in the 2018 accident year.

2018
North America Personal P&C Insurance incurred net adverse PPD of $41 million, representing 0.1 percent of the beginning consolidated net unpaid losses and loss expense reserves.

North America Agricultural Insurance
North America Agricultural Insurance experienced net favorable PPD of $10 million, $80 million, and $110 million in 2020, 2019, and 2018, respectively. Actual claim development mainly relates to our Multiple Peril Crop Insurance business and was favorable due to better than expected crop yield results in certain states at the prior year-end period (i.e., 2020 results based on crop yield results at year-end 2019).

Overseas General Insurance
2020
Overseas General Insurance experienced net favorable PPD of $150 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 $49 million in long-tail business, primarily from:

    - Net favorable development of $94 million in casualty lines, including favorable development of $143 million in accident years 2016 and prior, due to lower than expected loss emergence across primary and excess lines in Continental Europe, U.K., and Asia Pacific, partially offset by adverse development of $49 million in accident years 2017 through 2019, primarily due to adverse large loss experience in U.K. and Asia Pacific;

    - Net favorable development of $22 million in political risk, driven by lower than expected loss emergence in accident years 2018 and 2019; and

    - Net adverse development of $80 million in financial lines, with favorable development of $61 million in accident years 2015 and prior, primarily from favorable case-specific settlements within Continental Europe and Asia Pacific financial institutions, which was more than offset by adverse development of $141 million in accident years 2016 through 2019, primarily due to adverse large loss experience in D&O portfolios in the U.K. and Asia Pacific.

- Net favorable development of $101 million in short-tail business, primarily from:

offset by some higher than expected activity from other claims and from involuntary pools. The remaining overall favorable development was mainly in accident years 2015 and prior, generally driven by lower than expected loss experience and related updates to loss development factors;

- Net favorable development of $217 million in management liability portfolios, favorably impacting accident years 2015 and prior where paid and reported loss activity was lower than expected, partially offset by adverse development in the 2016 through 2018 accident years, mostly as a result of higher severity claim costs compared to prior expectations in certain lines or coverages, particularly in our Directors and Officers (D&O) portfolios;

- Net favorable development of $60 million in professional liability (errors & omissions and cyber), mainly in the 2015 and prior accident years where case activity was less than expected, partially offset by adverse development in the 2016 accident year, which was driven by several large adverse claim developments;

- Net favorable development of $41 million in commercial excess and umbrella portfolios, mainly in accident years 2013 and prior driven by lower paid and reported loss activity relative to prior expectations as well as an increase in weighting towards experience-based methods, partly offset by modestly adverse development in more recent accident years, mainly in 2017 and 2018, due to higher than expected large loss activity;

- Net favorable development of $39 million in foreign casualty business, impacting accident years 2015 and prior, driven by reported loss activity that was generally lower than expected;

- Net favorable development of $36 million on large multi-line prospective deals in the 2015 and prior accident years, due to lower than expected reported loss activity. These structured deals typically cover large clients for multiple product lines and with varying loss limitations; this development is net of premium returns of $34 million tied to the loss performance of the particular deals;

- Net favorable development of $24 million in medical and life sciences businesses, mainly impacting accident years 2015 and prior, primarily due to favorable reported experience and an increase in weighting towards experience-based methods;

- Favorable development of $23 million in political risk and trade credit portfolios, mainly impacting the 2015 accident year, primarily due to favorable reported experience and an increase in weighting towards experience-based methods;

- Net adverse development of $26 million mainly in products and general liability portfolios, including adverse movements within construction, partly offset by commercial-multi peril (CMP) liability, with older accident years generally experiencing favorable run-off, while more recent accident years developing adversely; and

- Net adverse development of $38 million in automobile liability, driven by adverse paid and reported loss experience mainly in accident years 2014 through 2018.

- Net adverse development of $19 million in short-tail business, primarily from:

  - Net adverse development, excluding catastrophes, of $108 million in property and marine portfolios with adverse development of $152 million across our retail, wholesale, and program distribution channels in accident year 2018, primarily due to a higher than expected severity of non-catastrophe claims, partly offset by favorable development of $44 million in 2017 and prior accident years on non-catastrophe claims;

  - Net favorable catastrophe development in property and marine portfolios of $36 million. There was $41 million of favorable development on the 2017 and 2018 natural catastrophes, mostly in 2017, partly offset by some adverse development on older catastrophe events; and

  - Favorable development of $49 million in surety businesses, mainly in accident year 2017, driven by lower than expected reported loss activity.

2018

North America Commercial P&C Insurance experienced net favorable PPD of $610 million, representing 1.2 percent of the beginning consolidated net unpaid losses and loss expense reserves.

years, we reviewed these potential exposures after the close of the accident year to allow for late reporting or identification of significant losses. This favorable development in accident year 2019 was partially offset by some higher than expected activity from other claims;

- Net favorable development of $231 million in management liability portfolios, favorably impacting accident years 2015 and prior where paid and reported loss activity was lower than expected, partially offset by adverse development in the 2016 through 2019 accident years, mainly due to higher than expected claim severity in our Directors and Officers (D&O) portfolios;

- Net favorable development of $83 million in commercial excess and umbrella portfolios, mainly in accident years 2014 and prior, driven by lower paid and reported loss activity relative to prior expectations as well as an increase in weighting towards experience-based methods, partially offset by adverse development in more recent accident years, due to higher than expected loss activity;

- Net favorable development of $67 million in professional liability (errors & omissions and cyber risk), driven by accident years 2016 and prior, which experienced lower than expected loss emergence;

- Net favorable development of $43 million in voluntary environmental lines, in accident years 2016 and prior, due to lower than expected loss emergence and a related update to loss development factors;

- Net favorable development of $41 million on large multi-line prospective deals in the 2016 and prior accident years, due to lower than expected reported loss activity. These structured deals typically cover large clients for multiple product lines and with varying loss limitations; this development is net of premium returns of $26 million tied to the loss performance of the particular deals;

- Net favorable development of $40 million in foreign casualty businesses, mainly in accident year 2016, due to lower than expected reported loss activity, partially offset by adverse development on a large loss in accident year 2017;

- Net adverse development of $48 million in general liability coverages, driven by higher than expected reported loss activity in accident years 2017 through 2019, partially offset by favorable development in older accident years;

- Net adverse development of $64 million in medical liability businesses, mainly impacting accident years 2016 through 2019, primarily due to higher than expected reported loss emergence and associated changes to loss development factors and loss expectations; and

- Net adverse development of $77 million in commercial automobile liability, mainly in high deductible and excess portfolios, driven by adverse paid and reported loss emergence and related updates to loss development factors, mainly in accident years 2015 through 2019.

- Net favorable development of $30 million in short-tail business primarily from:

  - Net favorable development of $37 million, in accident & health, mainly in accident years 2018 and 2019, driven by lower than expected paid loss emergence;

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

  - Net adverse development of $21 million in our marine portfolios, mainly impacting the 2019 accident year, driven by higher than expected non-catastrophe loss development.

2019

North America Commercial P&C Insurance experienced net favorable PPD of $649 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 $668 million in long-tail business, primarily from:

  - Net favorable development of $303 million in workers' compensation lines. This included favorable development of $61 million related to our annual assessment of multi-claimant events including industrial accidents, in the 2018 accident year. Consistent with prior years, we reviewed these potential exposures after the close of the accident year to allow for late reporting or identification of significant losses. This development in accident year 2018 was partially

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:*

Years Ended December 31 (in millions of U.S. dollars, except for percentages)	Long-tail	Short-tail	Total	% of beginning net unpaid reserves [1]
2020				
North America Commercial P&C Insurance	**$ (672)**	**$ (30)**	**$ (702)**	**1.4 %**
North America Personal P&C Insurance	**—**	**63**	**63**	**0.1 %**
North America Agricultural Insurance	**—**	**(10)**	**(10)**	**— %**
Overseas General Insurance	**(49)**	**(101)**	**(150)**	**0.3 %**
Global Reinsurance	**(25)**	**(4)**	**(29)**	**0.1 %**
Corporate	**433**	**—**	**433**	**0.9 %**
Total	**$ (313)**	**$ (82)**	**$ (395)**	**0.8 %**
2019				
North America Commercial P&C Insurance	$ (668)	$ 19	$ (649)	1.3 %
North America Personal P&C Insurance	—	(95)	(95)	0.2 %
North America Agricultural Insurance	—	(80)	(80)	0.2 %
Overseas General Insurance	(68)	(24)	(92)	0.2 %
Global Reinsurance	(59)	30	(29)	0.1 %
Corporate	153	—	153	0.3 %
Total	$ (642)	$ (150)	$ (792)	1.6 %
2018				
North America Commercial P&C Insurance	$ (395)	$ (215)	$ (610)	1.2 %
North America Personal P&C Insurance	—	41	41	0.1 %
North America Agricultural Insurance	—	(110)	(110)	0.2 %
Overseas General Insurance	(67)	(145)	(212)	0.4 %
Global Reinsurance	(69)	19	(50)	0.1 %
Corporate	45	—	45	0.1 %
Total	$ (486)	$ (410)	$ (896)	1.8 %

[1] Calculated based on the beginning of period consolidated net unpaid losses and loss expenses.

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
2020

North America Commercial P&C Insurance experienced net favorable PPD of $702 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 $672 million in long-tail business, primarily from:
  - Net favorable development of $363 million in workers' compensation lines. The majority of the favorable development related to accident years 2016 and prior, driven by lower than expected loss emergence and related updates to loss development factors. In addition, we experienced favorable development of $62 million related to our annual assessment of multi-claimant events, including industrial accidents, in the 2019 accident year. Consistent with prior

Prior Period Development — Supplementary Information

The following table presents a reconciliation of the loss development triangles above to prior period development:

| | | |

Global Reinsurance — Non-Casualty — Short-tail (continued)

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31 Unaudited									
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 87	$ 179	$ 210	$ 236	$ 254	$ 259	$ 262	$ 263	$ 264	**$ 265**
2012		45	130	157	167	173	178	180	181	**180**
2013			46	103	121	131	134	137	137	**139**
2014				66	131	154	165	171	173	**175**
2015					56	104	133	143	147	**153**
2016						57	133	161	172	**178**
2017							191	322	402	**415**
2018								94	258	**277**
2019									35	**86**
2020										**63**
Total										**$ 1,931**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ 10**
Accident years 2011 - 2020 from tables above	**302**
All Accident years	**$ 312**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ —**
Accident years 2011 - 2020 from tables above	**(2)**
All Accident years	**$ (2)**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	33 %	38 %	14 %	6 %	4 %	2 %	1 %	1 %	— %	— %

Global Reinsurance — Casualty — Long-tail (continued)

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ 331
Accident years 2011 - 2020 from tables above	869
All Accident years	$ 1,200

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ (10)
Accident years 2011 - 2020 from tables above	(12)
All Accident years	$ (22)

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	21 %	23 %	12 %	10 %	7 %	5 %	4 %	3 %	2 %	2 %

Global Reinsurance — Non-Casualty — Short-tail

This product line includes property, property catastrophe, marine, credit/surety, A&H and energy. This product line is impacted by natural catastrophes, particularly in the 2011, 2017 and 2018 accident years. Of the non-catastrophe book, the mixture of business varies by year with approximately 77 percent of loss on proportional treaties in treaty year 2011 and after. This percentage has increased over time with the proportion being approximately 59 percent for treaty years 2011 to 2012 growing to an average of 82 percent for treaty years 2013 to 2020, with the remainder being written on an excess of loss basis.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020
(in millions of U.S. dollars)	Unaudited										
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Net IBNR Reserves
2011	$ 277	$ 279	$ 276	$ 266	$ 267	$ 268	$ 267	$ 268	$ 267	$ 269	$ 1
2012		233	211	202	192	191	188	186	186	184	1
2013			162	160	148	143	144	141	141	140	—
2014				167	182	183	186	184	183	182	3
2015					147	155	162	162	155	161	4
2016						184	189	192	194	190	5
2017							397	424	454	451	10
2018								288	300	303	(8)
2019									143	141	29
2020										212	110
Total										$ 2,233	

Global Reinsurance

Chubb analyzes its Global Reinsurance business on a treaty year basis rather than on an accident year basis. Treaty year data was converted to an accident year basis for the purposes of this disclosure. Mix shifts are an important consideration in these product line groupings. As proportional business and excess of loss business have different earning and loss reporting and payment patterns, this change in mix will affect the cash flow patterns across the accident years. In addition, the shift from excess to proportional business over time will make the cash flow patterns of older and more recent years difficult to compare. In general, the proportional business will pay out more quickly than the excess of loss business, as such, using older years development patterns may overstate the ultimate loss estimates in more recent years.

Global Reinsurance — Casualty — Long-tail

This product line includes proportional and excess coverages in general, automobile liability, professional liability, medical malpractice and workers' compensation, with exposures located around the world. In general, reinsurance exhibits less stable development patterns than primary business. In particular, general casualty reinsurance and excess coverages are long-tailed and can be very volatile.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020
(in millions of U.S. dollars)						Unaudited					
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**
2011	$ 408	$ 415	$ 430	$ 433	$ 428	$ 418	$ 415	$ 409	$ 402	**$ 389**	**$ 15**
2012		387	384	392	395	379	373	372	374	**379**	**11**
2013			321	327	330	331	332	324	317	**311**	**13**
2014				334	335	340	343	345	348	**331**	**16**
2015					285	290	300	301	309	**306**	**22**
2016						224	228	236	236	**245**	**27**
2017							215	217	221	**218**	**28**
2018								246	249	**256**	**48**
2019									239	**248**	**90**
2020										**247**	**153**
Total										**$ 2,930**	

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)									*Unaudited*	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 70	$ 146	$ 195	$ 236	$ 267	$ 292	$ 312	$ 325	$ 332	**$ 338**
2012		78	168	223	262	293	309	324	336	**342**
2013			65	143	186	222	242	260	269	**272**
2014				92	185	218	249	265	277	**287**
2015					90	159	192	217	233	**250**
2016						58	113	143	159	**175**
2017							47	100	122	**140**
2018								42	96	**126**
2019									40	**90**
2020										**41**
Total										**$ 2,061**

Overseas General Insurance — Non-Casualty — Short-tail (continued)

Net Incurred Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31 Unaudited										As of December 31 2020	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$1,908	$1,995	$1,938	$1,898	$1,879	$1,867	$1,859	$1,849	$1,844	**$ 1,843**	**$ 6**	**543**
2012		1,712	1,702	1,661	1,605	1,599	1,590	1,575	1,570	**1,562**	**13**	**555**
2013			1,787	1,780	1,714	1,665	1,660	1,633	1,620	**1,610**	**19**	**573**
2014				1,863	1,932	1,875	1,864	1,828	1,817	**1,810**	**7**	**548**
2015					1,963	2,083	2,062	2,030	2,011	**2,003**	**24**	**571**
2016						2,070	2,071	2,058	2,036	**2,040**	**22**	**581**
2017							2,222	2,264	2,245	**2,225**	**18**	**589**
2018								2,186	2,276	**2,237**	**48**	**624**
2019									2,208	**2,228**	**94**	**640**
2020										**2,571**	**804**	**518**
Total										**$20,129**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31 Unaudited									
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 765	$ 1,486	$ 1,694	$ 1,750	$ 1,780	$ 1,795	$ 1,804	$ 1,808	$ 1,807	**$ 1,806**
2012		679	1,237	1,425	1,485	1,508	1,518	1,530	1,532	**1,532**
2013			696	1,284	1,480	1,512	1,549	1,567	1,575	**1,578**
2014				758	1,438	1,651	1,715	1,746	1,759	**1,774**
2015					857	1,560	1,793	1,875	1,897	**1,927**
2016						1,013	1,679	1,881	1,954	**1,981**
2017							1,051	1,848	2,029	**2,106**
2018								1,006	1,753	**1,962**
2019									1,050	**1,747**
2020										**1,085**
Total										**$ 17,498**

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ 94**
Accident years 2011 - 2020 from tables above	**2,631**
All Accident years	**$ 2,725**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ (8)**
Accident years 2011 - 2020 from tables above	**(69)**
All Accident years	**$ (77)**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	45 %	35 %	11 %	3 %	2 %	1 %	1 %	— %	— %	— %

Overseas General Insurance — Casualty — Long-tail (continued)

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31 Unaudited									
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 86	$ 243	$ 393	$ 528	$ 631	$ 713	$ 789	$ 842	$ 876	**$ 901**
2012		75	252	441	597	713	857	929	973	**1,040**
2013			85	267	428	579	725	829	899	**952**
2014				111	293	473	608	725	811	**876**
2015					86	287	497	679	802	**884**
2016						127	324	534	687	**815**
2017							98	323	535	**702**
2018								112	334	**503**
2019									126	**341**
2020										**110**
Total										**$ 7,124**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ 486**
Accident years 2011 - 2020 from tables above	**6,346**
All Accident years	**$ 6,832**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	*December 31, 2020*
Accident years prior to 2011	**$ (59)**
Accident years 2011 - 2020 from tables above	**9**
All Accident years	**$ (50)**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	8 %	15 %	15 %	12 %	10 %	8 %	6 %	4 %	4 %	3 %

Overseas General Insurance — Non-Casualty — Short-tail

This product line is comprised of commercial fire, marine (predominantly cargo), surety, personal automobile (in Latin America, Asia Pacific and Japan), personal cell phones, personal residential (including high net worth), energy and construction. In general, these lines have relatively stable payment and reporting patterns although they are impacted by natural catastrophes mainly in the 2011, 2017, and 2018 accident years. Latin America and Europe each make up about 30 percent of the Chubb Overseas General non-casualty book.

North America Personal P&C Insurance — Short-tail (continued)

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ 24
Accident years 2011 - 2020 from tables above	3,001
All Accident years	$ 3,025

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ (1)
Accident years 2011 - 2020 from tables above	85
All Accident years	$ 84

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	57 %	24 %	7 %	5 %	3 %	1 %	1 %	— %	— %	— %

Overseas General Insurance — Casualty — Long-tail

This product line is comprised of D&O liability, E&O liability, financial institutions (including crime/fidelity coverages), and non-U.S. general liability as well as aviation and political risk. Exposures are located around the world, including Europe, Latin America, and Asia. Approximately 45 percent of Chubb Overseas General business is generated by European accounts, exclusive of Lloyd's market. There is some U.S. exposure in Casualty from multinational accounts and in financial lines for Lloyd's market. The financial lines coverages are typically written on a claims-made form, while general liability coverages are typically on an occurrence basis and comprised of a mix of primary and excess businesses.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)	Unaudited											
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Net IBNR Reserves	Reported Claims (in thousands)
2011	$1,255	$1,262	$1,254	$1,244	$1,158	$1,090	$1,079	$1,027	$1,023	$ 1,025	$ 31	37
2012		1,290	1,261	1,326	1,346	1,343	1,337	1,315	1,304	1,272	87	38
2013			1,281	1,279	1,276	1,322	1,276	1,242	1,182	1,148	86	39
2014				1,279	1,352	1,362	1,378	1,293	1,206	1,165	151	39
2015					1,196	1,296	1,328	1,351	1,326	1,265	199	41
2016						1,232	1,337	1,407	1,437	1,425	341	43
2017							1,227	1,332	1,381	1,433	384	43
2018								1,330	1,383	1,447	671	43
2019									1,409	1,480	809	40
2020										1,810	1,493	28
Total										$13,470		

North America Commercial P&C Insurance — Non-Casualty — Short-tail (continued)

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	46 %	38 %	8 %	3 %	1 %	1 %	— %	1 %	— %	— %

North America Personal P&C Insurance — Short-tail

Chubb provides personal lines coverages for high-net-worth individuals and families in North America including homeowners, automobile, valuable articles (including fine art), umbrella liability, and recreational marine insurance offered through independent regional agents and brokers. A portfolio acquired from Fireman's Fund is presented on a prospective basis beginning in May of accident year 2015. Reserves associated with prior accident periods were acquired through a loss portfolio transfer, which does not allow for a retrospective presentation. During this ten-year period, this segment was also impacted by natural catastrophes, mainly in 2012, 2017 and 2018 accident years.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)									Unaudited			
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$2,208	$2,210	$2,185	$2,173	$2,164	$2,161	$2,160	$2,158	$2,159	**$ 2,157**	**$ 7**	**179**
2012		2,185	2,183	2,183	2,191	2,186	2,186	2,189	2,194	**2,190**	**18**	**188**
2013			1,860	1,888	1,897	1,900	1,924	1,937	1,945	**1,948**	**26**	**132**
2014				2,205	2,206	2,192	2,146	2,160	2,147	**2,141**	**14**	**144**
2015					2,494	2,550	2,561	2,544	2,563	**2,570**	**21**	**148**
2016						2,440	2,535	2,545	2,482	**2,471**	**45**	**154**
2017							3,035	3,069	3,002	**2,998**	**96**	**163**
2018								3,010	3,037	**3,103**	**244**	**169**
2019									2,957	**2,993**	**329**	**155**
2020										**2,931**	**1,119**	**100**
Total										**$ 25,502**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)									Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 1,360	$ 1,835	$ 1,972	$ 2,052	$ 2,105	$ 2,129	$ 2,139	$ 2,146	$ 2,148	**$ 2,149**
2012		1,177	1,806	1,957	2,063	2,117	2,149	2,164	2,163	**2,165**
2013			1,043	1,504	1,688	1,787	1,843	1,885	1,895	**1,917**
2014				1,310	1,765	1,926	2,035	2,080	2,106	**2,116**
2015					1,499	2,084	2,271	2,392	2,478	**2,508**
2016						1,453	2,052	2,211	2,314	**2,370**
2017							1,698	2,520	2,668	**2,799**
2018								1,926	2,549	**2,706**
2019									1,668	**2,437**
2020										**1,334**
Total										**$ 22,501**

North America Commercial P&C Insurance — Non-Casualty — Short-tail

This product line represents first party commercial product lines that are short-tailed in nature, such as property, inland marine, ocean marine, surety and A&H. There is a wide diversity of products, primary and excess coverages, and policy sizes. During this ten-year period, this product line was also impacted by natural catastrophes mainly in the 2012, 2017, and 2018 accident years.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31								Unaudited		As of December 31 2020	
(in millions of U.S. dollars)												
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$1,960	$1,934	$1,877	$1,856	$1,835	$1,840	$1,835	$1,835	$1,835	**$ 1,833**	**$ 4**	**416**
2012		2,033	1,916	1,883	1,864	1,859	1,847	1,844	1,850	**1,844**	**(8)**	**426**
2013			1,434	1,424	1,337	1,360	1,340	1,340	1,338	**1,344**	**7**	**455**
2014				1,643	1,661	1,579	1,559	1,549	1,550	**1,558**	**10**	**483**
2015					1,736	1,745	1,650	1,638	1,605	**1,589**	**(1)**	**545**
2016						1,911	1,890	1,799	1,782	**1,818**	**32**	**650**
2017							2,704	2,608	2,505	**2,522**	**51**	**763**
2018								2,053	2,240	**2,175**	**71**	**901**
2019									2,052	**2,037**	**166**	**1,036**
2020										**3,150**	**1,061**	**927**
Total										**$ 19,870**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31								Unaudited	
(in millions of U.S. dollars)										
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 939	$ 1,574	$ 1,718	$ 1,777	$ 1,787	$ 1,811	$ 1,816	$ 1,821	$ 1,825	**$ 1,830**
2012		715	1,577	1,698	1,767	1,795	1,822	1,816	1,842	**1,844**
2013			651	1,138	1,238	1,285	1,311	1,324	1,333	**1,335**
2014				820	1,374	1,484	1,506	1,532	1,546	**1,554**
2015					727	1,343	1,488	1,556	1,572	**1,574**
2016						846	1,504	1,656	1,733	**1,761**
2017							979	2,087	2,303	**2,394**
2018								1,027	1,825	**2,018**
2019									1,030	**1,677**
2020										**1,396**
Total										**$ 17,383**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ 4**
Accident years 2011 - 2020 from tables above	**2,487**
All Accident years	**$ 2,491**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ 2**
Accident years 2011 - 2020 from tables above	**(37)**
All Accident years	**$ (35)**

North America Commercial P&C Insurance — Other-Casualty — Long-tail (continued)

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31								Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 86	$ 235	$ 341	$ 400	$ 437	$ 461	$ 466	$ 480	$ 486	**$ 486**
2012		69	223	320	387	435	470	487	493	**502**
2013			69	197	271	348	385	411	419	**426**
2014				80	220	318	391	455	474	**501**
2015					47	137	215	305	371	**395**
2016						52	146	246	323	**374**
2017							66	175	313	**381**
2018								74	169	**270**
2019									70	**190**
2020										**53**
Total										**$ 3,578**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ 287**
Accident years 2011 - 2020 from tables above	**1,837**
All Accident years	**$ 2,124**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	**$ 23**
Accident years 2011 - 2020 from tables above	**19**
All Accident years	**$ 42**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	12 %	23 %	19 %	14 %	10 %	5 %	3 %	2 %	1 %	— %

North America Commercial P&C Insurance — Liability — Long-tail (continued)

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ 1,459
Accident years 2011 - 2020 from tables above	15,982
All Accident years	$ 17,441

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	December 31, 2020
Accident years prior to 2011	$ (176)
Accident years 2011 - 2020 from tables above	(117)
All Accident years	$ (293)

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	5 %	14 %	17 %	16 %	12 %	7 %	5 %	3 %	2 %	1 %

North America Commercial P&C Insurance — Other Casualty — Long-tail

This product line consists of the remaining commercial casualty coverages such as automobile liability and aviation. There is also a small portion of commercial multi-peril (CMP) business in accident years 2014 and prior. The paid and reported data are impacted by some catastrophe loss activity primarily on the CMP exposures just noted.

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)	Unaudited											
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Net IBNR Reserves	Reported Claims (in thousands)
2011	$ 581	$ 590	$ 581	$ 549	$ 533	$ 525	$ 517	$ 511	$ 513	$ 503	$ 13	16
2012		634	606	577	561	520	519	509	507	505	2	16
2013			527	531	523	516	469	462	462	458	21	18
2014				595	583	581	597	555	539	539	25	17
2015					487	470	502	515	458	455	35	15
2016						504	502	527	524	481	61	16
2017							532	566	577	616	118	17
2018								536	564	575	198	17
2019									606	637	284	16
2020										646	517	9
Total										$ 5,415		

North America Commercial P&C Insurance — Liability — Long-tail

This line consists of primary and excess liability exposures, including medical liability and professional lines, including directors and officers (D&O) liability, errors and omissions (E&O) liability, employment practices liability (EPL), fidelity bonds, and fiduciary liability.

The primary and excess liability business represents the largest part of these exposures. The former includes both monoline and commercial package liability. The latter includes a substantial proportion of commercial umbrella, excess and high excess business, *where loss activity can produce significant volatility in the loss triangles at later ages within an accident year (and* sometimes across years) due to the size of the limits afforded and the complex nature of the underlying losses.

This line includes management and professional liability products provided to a wide variety of clients, from national accounts to small firms along with private and not-for-profit organizations, distributed through brokers, agents, wholesalers and MGAs. Many of these coverages, particularly D&O and E&O, are typically written on a claims-made form. While most of the coverages are *underwritten on a primary basis, there are significant amounts of excess exposure with large policy limits.*

Net Incurred Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31										As of December 31 2020	
(in millions of U.S. dollars)									Unaudited			
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$3,500	$3,586	$3,630	$3,665	$3,593	$3,498	$3,384	$3,316	$3,193	**$ 3,143**	**$ 226**	**25**
2012		3,552	3,628	3,613	3,565	3,524	3,426	3,331	3,235	**3,235**	**353**	**25**
2013			3,547	3,542	3,543	3,533	3,430	3,216	3,122	**2,964**	**317**	**25**
2014				3,535	3,586	3,674	3,717	3,656	3,470	**3,346**	**572**	**25**
2015					3,560	3,709	3,819	3,976	3,943	**3,736**	**855**	**27**
2016						3,534	3,595	3,692	3,805	**3,799**	**962**	**27**
2017							3,322	3,499	3,581	**3,631**	**1,475**	**27**
2018								3,375	3,494	**3,696**	**1,737**	**28**
2019									3,452	**3,628**	**2,381**	**28**
2020										**4,098**	**3,695**	**24**
Total										**$35,276**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

	Years Ended December 31									
(in millions of U.S. dollars)									Unaudited	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 160	$ 652	$ 1,209	$ 1,805	$ 2,214	$ 2,477	$ 2,659	$ 2,741	$ 2,827	**$ 2,863**
2012		166	656	1,172	1,680	2,092	2,326	2,502	2,619	**2,688**
2013			130	548	1,192	1,597	2,007	2,232	2,374	**2,465**
2014				164	679	1,250	1,804	2,202	2,442	**2,584**
2015					138	605	1,206	1,856	2,291	**2,533**
2016						171	663	1,336	1,975	**2,334**
2017							161	617	1,162	**1,701**
2018								190	754	**1,303**
2019									176	**671**
2020										**152**
Total										**$ 19,294**

North America Commercial P&C Insurance — Workers' Compensation — Long-tail (continued)

Net Incurred Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31 Unaudited										As of December 31 2020	
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**	**Net IBNR Reserves**	**Reported Claims** (in thousands)
2011	$1,037	$1,030	$1,046	$1,049	$1,053	$1,022	$1,012	$1,009	$ 988	**$ 973**	**$ 208**	**45**
2012		1,050	1,011	1,030	1,040	1,011	989	986	977	**953**	**234**	**44**
2013			1,109	1,108	1,122	1,127	1,086	1,073	1,037	**1,014**	**280**	**43**
2014				1,207	1,201	1,217	1,215	1,163	1,100	**1,073**	**347**	**45**
2015					1,282	1,259	1,276	1,279	1,217	**1,154**	**419**	**50**
2016						1,367	1,361	1,383	1,378	**1,269**	**530**	**51**
2017							1,413	1,380	1,399	**1,393**	**723**	**50**
2018								1,359	1,361	**1,379**	**709**	**51**
2019									1,391	**1,384**	**767**	**47**
2020										**1,367**	**1,086**	**24**
Total										**$ 11,959**		

Net Cumulative Paid Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	Years Ended December 31 Unaudited									
Accident Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	**2020**
2011	$ 119	$ 294	$ 411	$ 484	$ 533	$ 567	$ 595	$ 616	$ 640	**$ 654**
2012		111	271	365	436	486	532	574	592	**612**
2013			107	286	422	506	553	587	616	**633**
2014				113	295	410	484	532	566	**599**
2015					116	301	418	501	564	**606**
2016						122	326	452	529	**584**
2017							120	313	437	**516**
2018								130	329	**451**
2019									143	**341**
2020										**111**
Total										**$ 5,107**

Net Liabilities for Loss and Allocated Loss Adjustment Expenses

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ 2,748**
Accident years 2011 - 2020 from tables above	**6,852**
All Accident years	**$ 9,600**

Supplementary Information: (Favorable)/ Adverse Prior Period Development

(in millions of U.S. dollars)	**December 31, 2020**
Accident years prior to 2011	**$ (94)**
Accident years 2011 - 2020 from tables above	**(256)**
All Accident years	**$ (350)**

Supplementary Information: Average Annual Percentage Payout of Net Incurred Claims by Age, as of December 31, 2020 (Unaudited)

Age in Years	1	2	3	4	5	6	7	8	9	10
Percentage	10 %	16 %	10 %	7 %	5 %	4 %	3 %	2 %	2 %	1 %

- The tables are presented retrospectively with respect to acquisitions where these are material and doing so is practicable. Most notably, the Chubb Corp acquisition is presented retrospectively. The unaudited consolidated data is presented solely for informational purposes and is not necessarily indicative of the consolidated data that might have been observed had the transactions been completed prior to the date indicated.

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

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

Cumulative Number of Reported Claims
Reported claim counts, on a cumulative basis, are provided to the far right of each incurred loss development table. In our North America segments, we generally consider a reported claim to be one claim per coverage per claimant. For our North America segments, we refined our claim count methodology in 2020 for our U.S. operations. For workers' compensation, we moved from including losses below the deductible in our reported claims to excluding them. This reduction in reported claims aligns claim counts to the portion of the claims to which Chubb has incurred losses, which we view as a more meaningful presentation. For non-casualty, personal and liability, we aligned our claim count methodology to reflect a reported claim per claimant, per coverage basis, and including all reported claims with either an indemnity or expense transaction. These changes resulted in fewer reported claims in non-casualty and additional reported claims in personal and liability. In our Overseas General Insurance segment, we generally consider a reported claim to be on a per occurrence basis. Global Reinsurance segment's portfolio comprises a mix of proportional and non-proportional treaties. The proportional treaties are reported on a bulk basis and do not lend themselves to meaningful claim count data. As such, we do not provide claim count information for our Global Reinsurance segment.

We exclude claims closed without payment. Claims are counted on a direct basis without consideration of ceded reinsurance. Use of the presented claim counts in analysis of company experience has significant limitations, including:

- Claims for certain events and/or product lines, such as portions of our A&H business, are not reported on an individual basis, but rather in bulk and thus not available for inclusion in this disclosure.
- Each segment typically has a mixture of primary and excess experience which has shifted over time.
- Captive business, especially in Workers' Compensation and Liability, largely represents fronted business where our net exposure to loss is minimal; however, since the claim count is based on direct claims, there is a mismatch between direct claims and net loss dollars, the extent of which varies by accident year.

Reported claim counts include open claims which have case reserves but exclude claims that have been incurred but not reported. As such the reported claims are not consistent with the incurred losses in the triangle, which include incurred but not reported losses. One can calculate reported losses by subtracting incurred but not reported losses from incurred losses in the triangle. Reported claim counts are also inconsistent with losses in the paid loss triangle, since reported counts would include claims with case reserves but no payments to date.

North America Commercial P&C Insurance — Workers' Compensation — Long-tail
This product line has a substantial geographic spread and a broad mix across industries. Types of coverage include risk management business predominantly with high deductible policies, loss sensitive business (i.e., retrospectively-rated policies), business fronted for captives, as well as excess and primary guaranteed cost coverages.

The triangle below shows all loss and allocated expense development for the workers' compensation product line. In our prior period development disclosure, we exclude any loss development where there is a directly related premium adjustment. For workers' compensation, changes in the exposure base due to payroll audits will drive changes in ultimate losses. In addition, we record involuntary pool assumptions (premiums and losses) on a lagged basis. Both of these items will influence the development in the triangle, particularly the first prior accident year, and are included in the reconciliation table presented on page F-58.

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

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

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

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

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

Each table follows a similar format and reflects the following:

- The incurred loss triangle includes both reported case reserves and IBNR liabilities.
- Both the incurred and paid loss triangles include allocated loss adjustment expense (i.e., defense and investigative costs particular to individual claims) but exclude unallocated loss adjustment expense (i.e., the costs associated with internal claims staff and third-party administrators).
- The amounts in both triangles for the years ended December 31, 2011 to December 31, 2019 and average historical claim duration as of December 31, 2020, are presented as supplementary information.
- All data presented in the triangles is net of reinsurance recoverables.
- The IBNR reserves shown to the right of each incurred loss development exhibit reflect the net IBNR recorded as of December 31, 2020.

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

We perform an actuarial reserve review for each product line at least once a year. For most product lines, one or more standard actuarial reserving methods may be used to determine estimates of ultimate losses and loss expenses, and from these estimates, a single actuarial central estimate is selected. The actuarial central estimate is an input to the reserve committee process described above. For the few product lines that do not lend themselves to standard actuarial reserving methods, appropriate techniques are applied to produce the actuarial central estimates. For example, run-off asbestos and environmental liability estimates are better suited to the application of account-specific exposure-based analyses to best evaluate their associated aggregate reserve levels.

b) Standard actuarial reserving methods
The judgments involved in projecting the ultimate losses include the use and interpretation of various standard actuarial reserving methods that place reliance on the extrapolation of actual historical data, loss development patterns, industry data, and other benchmarks as appropriate.

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

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

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

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

Business excluded from the loss development tables
"Other" shown in the reconciliation table comprises businesses excluded from the loss development tables:

- North America Agricultural Insurance segment business, which is short-tailed with the majority of the liabilities expected to be resolved in the ensuing twelve months;
- Corporate, which includes run-off liabilities such as asbestos and environmental and other mass tort exposures and which impact accident years older than those shown in the loss development tables below;
- Life Insurance segment business, which is generally written using long-duration contracts; and
- Certain subsets of our business due to data limitations or unsuitability to the loss development table presentation, including:
    - We underwrite loss portfolio transfers at various times; by convention, all premium and losses associated with these transactions are recorded to the policy period of the transaction, even though the accident dates of the claims covered may be a decade or more in the past. We also underwrite certain high attachment, high limit, multiple-line and excess of aggregate coverages for large commercial clients. Changes in incurred loss and cash flow patterns are volatile and sufficiently different from those of typical insureds. This category includes the loss portfolio transfer of Fireman's Fund personal lines run-off liabilities and Alternative Risk Solutions business within the North America Commercial P&C Insurance segment;
    - 2015 and prior paid history on a subset of previously acquired international businesses, within the Overseas General Insurance segment, due to limitations on the data prior to the acquisition;
    - Reinsurance recoverable bad debt; and
    - Purchase accounting adjustments related to unpaid losses and loss expenses for Chubb Corp.

a) Description of Reserving Methodologies
Our recorded reserves represent management's best estimate of the provision for unpaid claims as of the balance sheet date. The process of establishing loss and loss expense reserves can be complex and is subject to considerable uncertainty as it requires the use of estimates and judgments based on circumstances underlying the insured loss at the date of accrual. The reserves for our various product lines each require different qualitative and quantitative assumptions and judgments to be made. Management's best estimate is developed after collaboration with actuarial, underwriting, claims, legal, and finance departments and culminates with the input of reserve committees. Each business unit reserve committee includes the participation of the relevant parties from actuarial, finance, claims, and unit senior management and has the responsibility for finalizing, recommending and approving the estimate to be used as management's best estimate. Reserves are further reviewed by Chubb's Chief Actuary and senior management. The objective of such a process is to determine a single estimate that we believe represents a better estimate than any other and which is viewed by management to be the best estimate of ultimate loss settlements.

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

- nature and complexity of underlying coverage provided and net limits of exposure provided;
- segmentation of data to provide sufficient homogeneity and credibility for loss projection methods;
- extent of credible internal historical loss data and reliance upon industry information as required;
- historical variability of actual loss emergence compared with expected loss emergence;
- reported and projected loss trends;
- extent of emerged loss experience relative to the remaining expected period of loss emergence;
- rate monitor information for new and renewal business;
- changes in claims handling practice;
- inflation;
- the legal environment;
- facts and circumstances of large claims;
- terms and conditions of the contracts sold to our insured parties;
- impact of applicable reinsurance recoveries; and
- nature and extent of underlying assumptions.

The loss development tables under section c) below, present Chubb's historical incurred and paid claims development by broad product line through December 31, 2020, net of reinsurance, as well as the cumulative number of reported claims, IBNR balances, and other supplementary information.

The following table presents a reconciliation of the loss development tables to the liability for unpaid losses and loss expenses in the consolidated balance sheet:

Reconciliation of Reserve Balances to Liability for Unpaid Loss and Loss Expenses

(in millions of U.S. dollars)		December 31, 2020
Presented in the loss development tables:		
North America Commercial P&C Insurance — Workers' Compensation	$	**9,600**
North America Commercial P&C Insurance — Liability		**17,441**
North America Commercial P&C Insurance — Other Casualty		**2,124**
North America Commercial P&C Insurance — Non-Casualty		**2,491**
North America Personal P&C Insurance		**3,025**
Overseas General Insurance — Casualty		**6,832**
Overseas General Insurance — Non-Casualty		**2,725**
Global Reinsurance — Casualty		**1,200**
Global Reinsurance — Non-Casualty		**312**
Excluded from the loss development tables:		
Other		**4,742**
Net unpaid loss and allocated loss adjustment expense		**50,492**
Ceded unpaid loss and allocated loss adjustment expense:		
North America Commercial P&C Insurance — Workers' Compensation	$	**1,461**
North America Commercial P&C Insurance — Liability		**5,743**
North America Commercial P&C Insurance — Other Casualty		**564**
North America Commercial P&C Insurance — Non-Casualty		**1,380**
North America Personal P&C Insurance		**141**
Overseas General Insurance — Casualty		**2,426**
Overseas General Insurance — Non-Casualty		**1,686**
Global Reinsurance — Casualty		**29**
Global Reinsurance — Non-Casualty		**104**
Other		**1,153**
Ceded unpaid loss and allocated loss adjustment expense		**14,687**
Unpaid loss and loss expense on other than short-duration contracts [1]		**1,109**
Unpaid unallocated loss adjustment expenses		**1,523**
Unpaid losses and loss expenses	$	**67,811**

[1] Primarily includes the claims reserve of our International A&H business and Life Insurance segment reserves.

The following table presents, as of December 31, 2020, the expected estimated pre-tax amortization expense related to VOBA for the next five years at current foreign exchange rates:

For the Years Ending December 31 (in millions of U.S. dollars)	VOBA
2021	$ 22
2022	21
2023	19
2024	17
2025	16
Total	$ 95

7. Unpaid losses and loss expenses

Chubb establishes reserves for the estimated unpaid ultimate liability for losses and loss expenses under the terms of its policies and agreements. Reserves include estimates for both claims that have been reported and for IBNR claims, and include estimates of expenses associated with processing and settling these claims. Reserves are recorded in Unpaid losses and loss expenses in the consolidated balance sheets. While we believe that our reserves for unpaid losses and loss expenses at December 31, 2020 are adequate, new information or trends may lead to future developments in incurred loss and loss expenses significantly greater or less than the reserves provided. Any such revisions could result in future changes in estimates of losses or reinsurance recoverable and would be reflected in our results of operations in the period in which the estimates are changed.

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

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Gross unpaid losses and loss expenses, beginning of year	**$ 62,690**	$ 62,960	$ 63,179
Reinsurance recoverable on unpaid losses [1]	**(14,181)**	(14,689)	(14,014)
Net unpaid losses and loss expenses, beginning of year	**48,509**	48,271	49,165
Net losses and loss expenses incurred in respect of losses occurring in:			
Current year	**22,124**	19,575	19,048
Prior years [2]	**(414)**	(845)	(981)
Total	**21,710**	18,730	18,067
Net losses and loss expenses paid in respect of losses occurring in:			
Current year	**7,782**	7,894	7,544
Prior years	**9,652**	10,579	10,796
Total	**17,434**	18,473	18,340
Foreign currency revaluation and other	**379**	(19)	(621)
Net unpaid losses and loss expenses, end of year	**53,164**	48,509	48,271
Reinsurance recoverable on unpaid losses [1]	**14,647**	14,181	14,689
Gross unpaid losses and loss expenses, end of year	**$ 67,811**	$ 62,690	$ 62,960

[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 $19 million, $53 million, and $85 million for 2020, 2019, and 2018, respectively.

The increase in gross and net unpaid losses and loss expense in 2020 was driven by catastrophe losses incurred, principally from the COVID-19 pandemic. The increase in net unpaid losses and loss expense in 2019 reflected an increase in underlying reserves, offset by favorable prior period development and payments related to catastrophic events.

6. Goodwill and Other intangible assets

Goodwill

The following table presents a roll-forward of Goodwill by segment:

(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	Chubb Consolidated
Balance at December 31, 2018	$ 6,946	$ 2,230	$ 134	$ 4,770	$ 371	$ 820	$ 15,271
Foreign exchange revaluation and other	9	4	—	15	—	(3)	25
Balance at December 31, 2019	$ 6,955	$ 2,234	$ 134	$ 4,785	$ 371	$ 817	$ 15,296
Acquisition of Banchile Seguros de Vida	—	—	—	**16**	—	**28**	**44**
Foreign exchange revaluation and other	**17**	**6**	—	**35**	—	**2**	**60**
Balance at December 31, 2020	**$ 6,972**	**$ 2,240**	**$ 134**	**$ 4,836**	**$ 371**	**$ 847**	**$ 15,400**

Other intangible assets

Other intangible assets at December 31, 2020 and 2019 were $5,811 million and $6,063 million, respectively, principally acquired from the Chubb Corp acquisition. Other intangible assets in 2020 and 2019 comprised $2,846 million and $3,114 million, respectively, that are subject to amortization, principally agency distribution relationships and renewal rights, and $2,965 million and $2,949 million, respectively, that are not subject to amortization, principally trademarks. Amortization expense related to purchased intangibles was $290 million, $305 million, and $339 million for the years ended December 31, 2020, 2019, and 2018, principally related to agency distribution relationships and renewal rights.

The following table presents, as of December 31, 2020, the expected estimated pre-tax amortization expense (benefit) of purchased intangibles, at current foreign currency exchange rates, for 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 expense [1]	Total	Other intangible assets	Total Amortization of purchased intangibles
2021	$ 217	$ (20)	$ 197	$ 89	$ 286
2022	197	(14)	183	101	284
2023	178	(7)	171	96	267
2024	160	(6)	154	90	244
2025	145	(6)	139	89	228
Total	$ 897	$ (53)	$ 844	$ 465	$ 1,309

[1] In connection with the Chubb Corp acquisition, we recorded an increase to Unpaid losses and loss expenses acquired to adjust the carrying value of Chubb Corp's historical Unpaid losses and loss expenses to fair value as of the acquisition date. This fair value adjustment amortizes through Amortization of purchased intangibles on the Consolidated statements of operations through the year 2032. The balance of the fair value adjustment on Unpaid losses and loss expense was $110 million and $145 million at December 31, 2020 and 2019, respectively. Refer to Note 1(h) for additional information.

VOBA

The following table presents a roll-forward of VOBA:

(in millions of U.S. dollars)	2020	2019	2018
Balance, beginning of year	**$ 306**	$ 295	$ 326
Amortization of VOBA [1]	**(27)**	(24)	(25)
Foreign exchange revaluation and other	**(16)**	35	(6)
Balance, end of year	**$ 263**	$ 306	$ 295

[1] Recognized in Policy acquisition costs in the Consolidated statements of operations.

The following tables present a listing, at December 31, 2020, of the categories of Chubb's reinsurers:

December 31, 2020 (in millions of U.S. dollars, except for percentages)	Gross Reinsurance Recoverable on Loss and Loss Expenses	Valuation allowance for Uncollectible Reinsurance	% of Gross Reinsurance Recoverable
Categories			
Largest reinsurers	**$ 7,267**	**$ 88**	**1.2 %**
Other reinsurers rated A- or better	**4,901**	**58**	**1.2 %**
Other reinsurers rated lower than A- or not rated	**466**	**64**	**13.7 %**
Pools	**366**	**14**	**3.8 %**
Structured settlements	**521**	**11**	**2.1 %**
Captives	**2,107**	**11**	**0.5 %**
Other	**278**	**68**	**24.5 %**
Total	**$ 15,906**	**$ 314**	**2.0 %**

Largest Reinsurers

ABR Reinsurance Capital Holdings	HDI Group (Hannover Re)	Munich Re Group	Swiss Re Group
Berkshire Hathaway Insurance Group	Lloyd's of London	Partner Re Group	

Categories of Chubb's reinsurers	Comprises:
Largest reinsurers	• All groups of reinsurers or captives where the gross recoverable exceeds one percent of Chubb's total shareholders' equity.
Other reinsurers rated A- or better	• All reinsurers rated A- or better that were not included in the largest reinsurer category.
Other reinsurers rated lower than A- or not rated	• All reinsurers rated lower than A- or not rated that were not included in the largest reinsurer category.
Pools	• Related to Chubb's voluntary pool participation and Chubb's mandatory pool participation required by law in certain states.
Structured settlements	• Annuities purchased from life insurance companies to settle claims. Since we retain ultimate liability in the event that the life company fails to pay, we reflect the amounts as both a liability and a recoverable/receivable for GAAP purposes.
Captives	• Companies established and owned by our insurance clients to assume a significant portion of their direct insurance risk from Chubb; structured to allow clients to self-insure a portion of their reinsurance risk. It generally is our policy to obtain collateral equal to expected losses. Where appropriate, exceptions are granted but only with review and approval at a senior officer level. Excludes captives included in the largest reinsurer category.
Other	• Amounts recoverable that are in dispute or are from companies that are in supervision, rehabilitation, or liquidation.

The valuation allowance for uncollectible reinsurance is principally based on an analysis of the credit quality of the reinsurer and collateral balances. We establish the valuation allowance for uncollectible reinsurance for the Other category based on a case-by-case analysis of individual situations including the merits of the underlying matter, credit and collateral analysis, and consideration.

5. Reinsurance

a) Consolidated reinsurance

Chubb purchases reinsurance to manage various exposures including catastrophe risks. Although reinsurance agreements contractually obligate Chubb's reinsurers to reimburse it for the agreed-upon portion of its gross paid losses, they do not discharge Chubb's primary liability. The amounts for net premiums written and net premiums earned in the Consolidated statements of operations are net of reinsurance. The following table presents direct, assumed, and ceded premiums:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Premiums written			
Direct	**$ 37,749**	$ 36,848	$ 34,782
Assumed	**3,512**	3,276	3,186
Ceded	**(7,441)**	(7,849)	(7,389)
Net	**$ 33,820**	$ 32,275	$ 30,579
Premiums earned			
Direct	**$ 37,037**	$ 35,876	$ 34,108
Assumed	**3,323**	3,107	3,175
Ceded	**(7,243)**	(7,693)	(7,219)
Net	**$ 33,117**	$ 31,290	$ 30,064

Ceded losses and loss expenses incurred were $5.0 billion, $4.9 billion, and $5.6 billion for the years ended December 31, 2020, 2019, and 2018, respectively.

b) Reinsurance recoverable on ceded reinsurance

	December 31, 2020		December 31, 2019	
(in millions of U.S. dollars)	**Net Reinsurance Recoverable [1]**	**Valuation allowance**	Net Reinsurance Recoverable [1]	Valuation allowance
Reinsurance recoverable on unpaid losses and loss expenses	**$ 14,647**	**$ 257**	$ 14,181	$ 240
Reinsurance recoverable on paid losses and loss expenses	**945**	**57**	1,000	76
Reinsurance recoverable on losses and loss expenses	**$ 15,592**	**$ 314**	$ 15,181	$ 316
Reinsurance recoverable on policy benefits	**$ 206**	**$ 5**	$ 197	$ 4

[1] *Net of valuation allowance for uncollectible reinsurance.*

The increase in reinsurance recoverable on losses and loss expenses in 2020 was primarily due to catastrophe losses, partially offset by crop activity and prior period development.

We evaluate the financial condition of our reinsurers and potential reinsurers on a regular basis and also monitor concentrations of credit risk with reinsurers. The valuation allowance for uncollectible reinsurance is required principally due to the potential failure of reinsurers to indemnify Chubb, primarily because of disputes under reinsurance contracts and insolvencies. We have established a valuation allowance for amounts estimated to be uncollectible on both unpaid and paid losses as well as future policy benefits. Refer to Note 1 d) for a discussion of the valuation allowance methodology.

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)	**Year Ended December 31, 2020**
Valuation allowance for uncollectible reinsurance - beginning of period	**$ 316**
Provision for uncollectible reinsurance	**21**
Write-offs charged against the valuation allowance	**(25)**
Foreign exchange revaluation	**2**
Valuation allowance for uncollectible reinsurance - end of period	**$ 314**

Investments in partially-owned insurance companies
Fair values for investments in partially-owned insurance companies are based on Chubb's share of the net assets based on the financial statements provided by those companies and are excluded from the valuation hierarchy tables below.

Short- and long-term debt, repurchase agreements, and trust preferred securities
Where practical, fair values for short-term debt, long-term debt, repurchase agreements, and trust preferred securities are estimated using discounted cash flow calculations based principally on observable inputs including incremental borrowing rates, which reflect Chubb's credit rating, for similar types of borrowings with maturities consistent with those remaining for the debt being valued.

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

December 31, 2020				Fair Value	Net Carrying
(in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total	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
Short-term debt	—	—	—	—	—
Long-term debt	—	17,487	—	17,487	14,948
Trust preferred securities	—	473	—	473	308
Total liabilities	$ —	$ 19,365	$ —	$ 19,365	$ 16,661

December 31, 2019				Fair Value	
(in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total	Carrying Value
Assets:					
Fixed maturities held to maturity					
U.S. Treasury / Agency	$ 1,292	$ 55	$ —	$ 1,347	$ 1,318
Non-U.S.	—	1,485	—	1,485	1,423
Corporate and asset-backed securities	—	2,436	32	2,468	2,349
Mortgage-backed securities	—	2,396	—	2,396	2,331
Municipal	—	5,309	—	5,309	5,160
Total assets	$ 1,292	$ 11,681	$ 32	$ 13,005	$ 12,581
Liabilities:					
Repurchase agreements	$ —	$ 1,416	$ —	$ 1,416	$ 1,416
Short-term debt	—	1,307	—	1,307	1,299
Long-term debt	—	15,048	—	15,048	13,559
Trust preferred securities	—	467	—	467	308
Total liabilities	$ —	$ 18,238	$ —	$ 18,238	$ 16,582

Year Ended December 31, 2019 (in millions of U.S. dollars)	Assets: Available-for-Sale Debt Securities: Non-U.S.	Assets: Available-for-Sale Debt Securities: Corporate and asset-backed securities	Assets: Available-for-Sale Debt Securities: MBS	Assets: Equity securities	Assets: Short-term investments	Assets: Other investments	Liabilities: GLB [1]
Balance, beginning of year	$ 345	$ 1,299	$ 61	$ 57	$ 1	$ 11	$ 861
Transfers into Level 3	11	23	—	—	—	—	—
Transfers out of Level 3	(24)	(38)	(16)	—	—	—	—
Change in Net Unrealized Gains/Losses in OCI	13	(2)	—	1	—	—	—
Net Realized Gains/Losses	(1)	(4)	—	(2)	—	—	4
Purchases	228	577	19	34	6	—	—
Sales	(70)	(125)	(1)	(21)	—	—	—
Settlements	(53)	(279)	(3)	—	(1)	(1)	—
Other	—	—	—	—	—	—	32
Balance, end of year	$ 449	$ 1,451	$ 60	$ 69	$ 6	$ 10	$ 897
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	$ —	$ (2)	$ —	$ (3)	$ —	$ —	$ 4
Change in Net Unrealized Gains/Losses included in OCI at the Balance Sheet Date	$ 7	$ (8)	$ —	$ —	$ —	$ —	$ —

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

Year Ended December 31, 2018 (in millions of U.S. dollars)	Assets: Available-for-Sale Debt Securities: Non-U.S.	Assets: Available-for-Sale Debt Securities: Corporate and asset-backed securities	Assets: Available-for-Sale Debt Securities: MBS	Assets: Equity securities	Assets: Short-term investments	Assets: Other investments	Liabilities: Other derivative instruments	Liabilities: GLB [1]
Balance, beginning of year	$ 93	$ 1,037	$ 78	$ 44	$ —	$ 263	$ 2	$ 550
Transfers into Level 3	13	24	1	—	5	—	—	—
Transfers out of Level 3	(2)	(31)	(3)	—	—	(252)	—	—
Change in Net Unrealized Gains/Losses in OCI	(12)	(4)	—	(2)	—	(2)	—	—
Net Realized Gains/Losses	(3)	(5)	—	6	—	1	(2)	248
Purchases	334	672	5	37	9	50	—	—
Sales	(69)	(164)	—	(28)	—	—	—	—
Settlements	(9)	(230)	(20)	—	(13)	(49)	—	—
Other	—	—	—	—	—	—	—	63
Balance, end of year	$ 345	$ 1,299	$ 61	$ 57	$ 1	$ 11	$ —	$ 861
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	$ (1)	$ (7)	$ —	$ (1)	$ —	$ 1	$ —	$ 248

[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.

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. All GMIB reinsurance treaties include claim limits to protect Chubb in the event that actual annuitization behavior is significantly higher than expected. In general, Chubb assumes that GMIB annuitization rates will be higher for policies with more valuable guarantees (policies with guaranteed values far in excess of their account values). Chubb also assumes that GMIB annuitization rates increase as policyholders get older. In addition, we also assume that GMIB annuitization rates are higher in the first year immediately following the waiting period (the first year the policies are eligible to annuitize using the GMIB) in comparison to all subsequent years. We do not yet have fully credible annuitization experience for all clients.

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. In the fourth quarter of 2020, we completed a review of policyholder behavior related to annuitizations, partial withdrawals, lapses, and mortality for our variable annuity reinsurance business. As a result, we refined our policyholder behavior assumptions (mainly those relating to annuitizations and partial withdrawals), which had an insignificant impact on net income. During the year ended December 31, 2020, we also made routine model refinements to the internal valuation model which had an insignificant impact on net income.

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						
Year Ended December 31, 2020 (in millions of U.S. dollars)	Non-U.S.	Corporate and asset-backed securities	MBS	Equity securities	Short-term investments	Other investments	GLB [1]
Balance, beginning of year	$ 449	$ 1,451	$ 60	$ 69	$ 6	$ 10	$ 897
Transfers into Level 3	—	134	—	—	—	—	—
Transfers out of Level 3	(16)	(73)	(1)	(3)	—	—	—
Change in Net Unrealized Gains/Losses in OCI	19	(8)	—	—	—	—	—
Net Realized Gains/Losses	(1)	(30)	—	1	(1)	—	202
Purchases	274	708	2	23	14	—	—
Sales	(122)	(186)	—	(17)	(2)	—	—
Settlements	(57)	(423)	(1)	—	(12)	—	—
Other	—	—	—	—	—	—	(10)
Balance, end of year	$ 546	$ 1,573	$ 60	$ 73	$ 5	$ 10	$ 1,089
Net Realized Gains/Losses Attributable to Changes in Fair Value at the Balance Sheet Date	$ —	$ (5)	$ —	$ 4	$ —	$ —	$ 202
Change in Net Unrealized Gains/Losses included in OCI at the Balance Sheet Date	$ 16	$ (6)	$ —	$ —	$ —	$ —	$ —

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

December 31, 2019 (in millions of U.S. dollars)	Level 1	Level 2	Level 3	Total
Assets:				
Fixed maturities available for sale				
U.S. Treasury / Agency	$ 2,664	$ 619	$ —	$ 3,283
Non-U.S.	—	23,258	449	23,707
Corporate and asset-backed securities	—	30,340	1,451	31,791
Mortgage-backed securities	—	19,132	60	19,192
Municipal	—	7,515	—	7,515
	2,664	80,864	1,960	85,488
Equity securities	728	15	69	812
Short-term investments	2,803	1,482	6	4,291
Other investments [1]	412	377	10	799
Securities lending collateral	—	994	—	994
Investment derivative instruments	24	—	—	24
Other derivative instruments	2	—	—	2
Separate account assets	3,437	136	—	3,573
Total assets measured at fair value [1]	$ 10,070	$ 83,868	$ 2,045	$ 95,983
Liabilities:				
Investment derivative instruments	$ 93	$ —	$ —	$ 93
Other derivative instruments	13	—	—	13
GLB [2]	—	—	897	897
Total liabilities measured at fair value	$ 106	$ —	$ 897	$ 1,003

[1] Excluded from the table above are partially-owned investments, investment funds, and limited partnerships of $4,921 million and other investments of $95 million at December 31, 2019 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 at December 31 2020	Valuation Technique	Significant Unobservable Inputs	Ranges	Weighted Average [1]
GLB [1]	**$ 1,089**	**Actuarial model**	**Lapse rate**	**3% - 34%**	**4.7 %**
			Annuitization rate	**0% - 100%**	**3.6 %**

[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. In general, the base lapse function assumes low lapse rates during the surrender charge period of the GMIB contract, followed by a "spike" lapse rate in the year immediately following the surrender charge period, and then reverting to an ultimate lapse rate, typically over a 2-year period. This base rate is adjusted downward for policies with more valuable guarantees (policies with guaranteed values far in excess of their account values). Partial withdrawals and the impact of older policyholders with tax-qualified contracts (due to required minimum distributions) are also reflected in our modeling.

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. Prior to 2020, a portion of the GLB liability that represented expected losses allocated to premiums received was recorded as incurred losses within Future policy benefits, with changes in these estimates recorded in Future policy benefits. We reclassified $441 million, $409 million, and $346 million of GLB liability as of December 31, 2019, 2018, and 2017, respectively, to Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets to conform with the new presentation. 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

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.

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.

The following table presents the components of restricted assets:

(in millions of U.S. dollars)	December 31 2020	December 31 2019
Trust funds	**$ 12,305**	$ 14,004
Deposits with U.S. regulatory authorities	**2,438**	2,466
Deposits with non-U.S. regulatory authorities	**2,905**	2,709
Assets pledged under repurchase agreements	**1,462**	1,464
Other pledged assets	**584**	490
Total	**$ 19,694**	$ 21,133

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

e) Investments in partially-owned insurance companies

The following table presents Investments in partially-owned insurance companies:

(in millions of U.S. dollars, except for percentages)	December 31, 2020 Carrying Value	Goodwill	Direct Ownership Percentage	December 31, 2019 Carrying Value	Goodwill	Direct Ownership Percentage	Domicile
Huatai Group	$ 2,461	$ 1,313	47 %	$ 1,053	$ 460	31 %	China
Huatai Life Insurance Company	201	69	20 %	147	64	20 %	China
Freisenbruch-Meyer	10	3	40 %	10	3	40 %	Bermuda
Chubb Arabia Cooperative Insurance Company	23	—	30 %	20	—	30 %	Saudi Arabia
Russian Reinsurance Company	4	—	23 %	2	—	23 %	Russia
ABR Reinsurance Ltd.	114	—	16 %	100	—	12 %	Bermuda
Total	$ 2,813	$ 1,385		$ 1,332	$ 527		

Chubb's aggregate direct and indirect ownership in Huatai Life is approximately 57.5 percent, comprising 20 percent direct and 37.5 percent indirect ownership interest.

The table above excludes the 7.1 percent of additional ownership commitment in Huatai Group that is contingent upon important conditions. Refer to Note 2 for additional information.

f) Net investment income

(in millions of U.S. dollars)	Year Ended December 31 2020	2019	2018
Fixed maturities [1]	$ 3,321	$ 3,385	$ 3,128
Short-term investments	48	84	90
Other interest income	19	25	118
Equity securities	81	26	33
Other investments	82	78	104
Gross investment income [2]	3,551	3,598	3,473
Investment expenses	(176)	(172)	(168)
Net investment income [2]	$ 3,375	$ 3,426	$ 3,305
[1] Includes amortization expense related to fair value adjustment of acquired invested assets related to the Chubb Corp acquisition	$ (116)	$ (161)	$ (248)

g) 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 are investments, primarily fixed maturities, totaling $19.6 billion and $21.0 billion, and cash of $89 million and $109 million, at December 31, 2020 and 2019, respectively.

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:

		December 31 2020		December 31 2019	
(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**	**$ 673**	**$ 237**	$ 611	$ 329
Real Assets	**2 to 11 Years**	**805**	**598**	712	422
Distressed	**2 to 8 Years**	**358**	**970**	263	80
Private Credit	**3 to 8 Years**	**88**	**270**	104	272
Traditional	**2 to 14 Years**	**4,519**	**1,125**	2,844	2,160
Vintage	**1 to 2 Years**	**73**	**—**	116	—
Investment funds	**Not Applicable**	**254**	**—**	271	—
		$ 6,770	**$ 3,200**	$ 4,921	$ 3,263

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

Included in partially-owned investment companies and limited partnerships are 130 individual limited partnerships covering a broad range of investment strategies including large cap buyouts, specialist buyouts, growth capital, distressed, mezzanine, real estate, and co-investments. The underlying portfolio consists of various public and private debt and equity securities of publicly traded and privately held companies and real estate assets. The underlying investments across various partnerships, geographies, industries, asset types, and investment strategies provide risk diversification within the limited partnership portfolio and the overall investment portfolio.

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.

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

(in millions of U.S. dollars)	Year Ended December 31 2020
Available for sale	
Valuation allowance for expected credit losses - beginning of period	$ —
Impact of adoption of new accounting guidance	**25**
Provision for expected credit loss	**188**
Initial allowance for purchased securities with credit deterioration	**5**
Write-offs charged against the expected credit loss	**(5)**
Recovery of expected credit loss	**(193)**
Valuation allowance for expected credit losses - end of period	**$ 20**
Held to maturity	
Valuation allowance for expected credit losses - beginning of period	$ —
Impact of adoption of new accounting guidance	**44**
Provision for expected credit loss	**9**
Recovery of expected credit loss	**(9)**
Valuation allowance for expected credit losses - end of period	**$ 44**

Purchased Credit Deterioration (PCD) Securities
During the year ended December 31, 2020, we purchased $108 million of securities with credit deterioration, categorized as available for sale, and assessed an allowance for expected credit losses of $5 million at acquisition. These PCD securities had a par value at acquisition of $144 million.

d) Other investments

(in millions of U.S. dollars)	December 31 2020	2019
Alternative investments:		
Partially-owned investment companies	**$ 5,969**	$ 4,142
Limited partnerships	**547**	508
Investment funds	**254**	271
Alternative investments	**6,770**	4,921
Life insurance policies	**438**	377
Policy loans	**233**	247
Non-qualified separate account assets [1]	**316**	283
Other	**188**	234
Total	**$ 7,945**	$ 6,062

[1] Non-qualified separate account assets are comprised of mutual funds, supported by assets that do not qualify for separate account reporting under GAAP.

The following table presents the components of Net realized gains (losses) and the change in net unrealized appreciation (depreciation) of investments:

	Year Ended December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Fixed maturities:			
OTTI on fixed maturities, gross	**$ —**	$ (90)	$ (52)
OTTI on fixed maturities recognized in OCI (pre-tax)	**—**	32	3
OTTI on fixed maturities, net	**—**	(58)	(49)
Gross realized gains excluding OTTI	**244**	203	334
Gross realized losses excluding OTTI	**(366)**	(176)	(587)
Recovery of expected credit losses	**11**	—	—
Impairment [1]	**(170)**	—	—
Total fixed maturities	**(281)**	(31)	(302)
Equity securities	**586**	104	(59)
Other investments	**(32)**	(20)	(5)
Foreign exchange gains (losses)	**(483)**	7	131
Investment and embedded derivative instruments	**81**	(435)	(75)
Fair value adjustments on insurance derivative	**(202)**	(4)	(248)
S&P futures	**(108)**	(138)	(4)
Other derivative instruments	**1**	(8)	(3)
Other	**(60)**	(5)	(87)
Net realized gains (losses) (pre-tax)	**$ (498)**	$ (530)	$ (652)
Change in net unrealized appreciation (depreciation) on investments (pre-tax):			
Fixed maturities available for sale	**$ 2,628**	$ 3,769	$ (1,958)
Fixed maturities held to maturity	**(24)**	(31)	(38)
Other	**(12)**	(3)	—
Income tax (expense) benefit	**(462)**	(647)	297
Change in net unrealized appreciation (depreciation) on investments (after-tax)	**$ 2,130**	$ 3,088	$ (1,699)

[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:

	Year Ended December 31, 2020			Year Ended December 31, 2019			Year Ended December 31, 2018		
(in millions of U.S. dollars)	**Equity Securities**	**Other Investments**	**Total**	Equity Securities	Other Investments	Total	Equity Securities	Other Investments	Total
Net gains (losses) recognized during the period	**$ 586**	**$ (32)**	**$ 554**	$ 104	$ (20)	$ 84	$ (59)	$ (5)	$ (64)
Less: Net gains (losses) recognized from sales of securities	**455**	**—**	**455**	58	(5)	53	70	121	191
Unrealized gains (losses) recognized for securities still held at reporting date	**$ 131**	**$ (32)**	**$ 99**	$ 46	$ (15)	$ 31	$ (129)	$ (126)	$ (255)

b) Gross unrealized loss

Fixed maturities in an unrealized loss position at December 31, 2020, 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 table presents, for AFS fixed maturities in an unrealized loss position (including securities on loan) that are not deemed to have credit losses, the aggregate fair value and gross unrealized loss by length of time the security has continuously been in an unrealized loss position:

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)

The following table presents, for all securities in an unrealized loss position (including securities on loan), the aggregate fair value and gross unrealized loss by length of time the security has continuously been in an unrealized loss position:

December 31, 2019 (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
U.S. Treasury / Agency	$ 234	$ (1)	$ 339	$ —	$ 573	$ (1)
Non-U.S.	1,846	(34)	802	(28)	2,648	(62)
Corporate and asset-backed securities	2,121	(40)	988	(40)	3,109	(80)
Mortgage-backed securities	1,174	(6)	932	(8)	2,106	(14)
Municipal	188	—	276	(12)	464	(12)
Total fixed maturities	$ 5,563	$ (81)	$ 3,337	$ (88)	$ 8,900	$ (169)

c) Net realized gains (losses)

The following table presents a roll-forward of pre-tax credit losses related to fixed maturities for which a portion of OTTI was recognized in OCI:

(in millions of U.S. dollars)	Year Ended December 31 2019	2018
Balance of credit losses related to securities still held – beginning of year	$ 34	$ 22
Additions where no OTTI was previously recorded	33	20
Additions where an OTTI was previously recorded	4	5
Reductions for securities sold during the period	(41)	(13)
Balance of credit losses related to securities still held – end of year	$ 30	$ 34

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

December 31, 2020 (in millions of U.S. dollars)	Amortized cost	% of Total
AAA	**$ 2,511**	**22 %**
AA	**6,193**	**53 %**
A	**2,138**	**18 %**
BBB	**826**	**7 %**
BB	**28**	**— %**
Other	**1**	**— %**
Total	**$ 11,697**	**100 %**

The following table presents fixed maturities by contractual maturity:

	December 31 2020		December 31 2019	
(in millions of U.S. dollars)	Net Carrying Value	Fair Value	Amortized Cost	Fair Value
Available for sale				
Due in 1 year or less	**$ 4,760**	**$ 4,760**	$ 3,951	$ 3,973
Due after 1 year through 5 years	**26,227**	**26,227**	27,142	27,720
Due after 5 years through 10 years	**27,232**	**27,232**	23,901	24,874
Due after 10 years	**14,010**	**14,010**	8,874	9,729
	72,229	**72,229**	63,868	66,296
Mortgage-backed securities	**18,470**	**18,470**	18,712	19,192
	$ 90,699	**$ 90,699**	$ 82,580	$ 85,488
Held to maturity				
Due in 1 year or less	**$ 1,231**	**$ 1,240**	$ 478	$ 479
Due after 1 year through 5 years	**3,592**	**3,760**	3,869	3,940
Due after 5 years through 10 years	**3,029**	**3,228**	3,756	3,883
Due after 10 years	**1,802**	**2,136**	2,147	2,307
	9,654	**10,364**	10,250	10,609
Mortgage-backed securities	**1,999**	**2,146**	2,331	2,396
	$ 11,653	**$ 12,510**	$ 12,581	$ 13,005

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.

3. Investments

a) Fixed maturities

Effective January 1, 2020, we adopted new accounting guidance that requires a valuation allowance for credit losses to be established for fixed maturity securities classified as held to maturity (HTM) or available for sale (AFS).

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

December 31, 2019 (in millions of U.S. dollars)	Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value	OTTI Recognized in AOCI
Available for sale					
U.S. Treasury / Agency	$ 3,188	$ 96	$ (1)	$ 3,283	$ —
Non-U.S.	22,670	1,099	(62)	23,707	(25)
Corporate and asset-backed securities	30,689	1,180	(78)	31,791	(5)
Mortgage-backed securities	18,712	494	(14)	19,192	—
Municipal	7,321	205	(11)	7,515	—
	$ 82,580	$ 3,074	$ (166)	$ 85,488	$ (30)
Held to maturity					
U.S. Treasury / Agency	$ 1,318	$ 29	$ —	$ 1,347	$ —
Non-U.S.	1,423	62	—	1,485	—
Corporate and asset-backed securities	2,349	121	(2)	2,468	—
Mortgage-backed securities	2,331	65	—	2,396	—
Municipal	5,160	150	(1)	5,309	—
	$ 12,581	$ 427	$ (3)	$ 13,005	$ —

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 11 million customers in China.

In 2019, Chubb entered into agreements to acquire an additional 22.4 percent ownership in Huatai Group through two separate purchases, a 15.3 percent ownership interest for approximately $1.1 billion and a 7.1 percent ownership interest for approximately $493 million. On July 13, 2020, we completed the 15.3 percent purchase. The purchase of the additional 7.1 percent ownership interest is contingent upon important conditions.

In connection with these purchase agreements, we paid $1.6 billion, including a collateralized deposit for the 7.1 percent tranche, in 2020. These transactions are recorded within investing activities on the Consolidated statement of cash flows.

Separately, in November 2020, we completed the purchase of an incremental 0.9 percent ownership interest in Huatai Group for approximately $65 million.

As of December 31, 2020, 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. Refer to Note 14 for additional information. The Consolidated statements of operations include the equity income from the additional ownership interests as of each respective closing date. Upon completion of the 7.1 percent purchase, which will result in majority ownership of Huatai Group, Chubb is expected to obtain control of Huatai. At that time, Chubb is expected to apply consolidation accounting and discontinue the application of the equity method of accounting.

Prior year acquisition
Banchile Seguros de Vida

On December 30, 2019, we acquired Banchile Seguros de Vida, an insurance company providing both life and property and casualty coverages in Chile, for $74 million in cash. The results of this acquisition are included in the Overseas General Insurance and Life Insurance segments as appropriate, determined by the type of policy written.

r) Chubb integration expenses

Direct costs related to the Chubb Corp acquisition were expensed as incurred. Chubb integration expenses were nil, $23 million, and $59 million for the years ended December 31, 2020, 2019 and 2018, respectively, and include all internal and external costs directly related to the integration activities of the Chubb Corp acquisition. These expenses principally consisted of personnel-related expenses, consulting fees, and rebranding.

s) New accounting pronouncements

Adopted in 2020

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

Effective January 1, 2020, we adopted, on a modified retrospective basis, new guidance on the accounting for credit losses of financial instruments that are measured at amortized cost, including held to maturity securities, and reinsurance recoverables, by applying an approach based on the current expected credit losses (CECL). The estimate of expected credit losses considers historical information, current information, as well as reasonable and supportable forecasts, including estimates of prepayments. In addition, the guidance also replaced the current available for sale (AFS) security other-than-temporary impairment model by requiring an estimate of the expected credit loss (ECL) only when the fair value is below the amortized cost of the asset. The length of time the fair value of an AFS security has been below its amortized cost no longer impacts the determination of whether a potential credit loss exists. The AFS security model also requires the use of a valuation allowance as compared to the previous practice of writing down the asset.

In 2020, we recognized a cumulative effect adjustment and decreased beginning retained earnings by $79 million pre-tax, or $72 million after-tax, principally related to the valuation allowance for credit losses. We also adopted the required disclosures within Note 3 Investments and Note 5 Reinsurance. Results for reporting periods prior to January 1, 2020 are presented in accordance with the previous guidance.

Adopted in 2021

Income Taxes - Simplifying the Accounting for Income Taxes

Effective January 1, 2021, we adopted guidance which is intended to simplify the accounting for income taxes by removing several exceptions contained in existing guidance and amending other guidance. The adoption of the new guidance did not have a material effect on our results of operations or financial condition.

Accounting guidance not yet adopted

Effects of Reference Rate Reform on Financial Reporting

In March 2020, the FASB issued guidance which provides optional expedients and exceptions for applying GAAP to investments, derivatives, or other transactions that reference the London Interbank Offered Rate (LIBOR) or another reference rate expected to be discontinued because of reference rate reform. Along with the optional expedients, the amendments include a general principle that permits an entity to consider contract modifications due to reference reform to be an event that does not require contract re-measurement at the modification date or reassessment of a previous accounting determination. Additionally, a company may make a one-time election to sell, transfer, or both sell and transfer debt securities classified as held to maturity that reference a rate affected by reference rate reform and that were classified as held to maturity before January 1, 2020. This standard may be elected over time through December 31, 2022 as reference rate reform activities occur. Our exposure to LIBOR is limited and, accordingly, we do not expect reference rate reform to have a material impact on our Consolidated Financial Statements.

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.

return. Changes to the deposit liability are generally reflected through Interest expense to reflect the cumulative effect of the period the contract has been in force, and by an adjustment to the future accretion rate of the liability over the remaining estimated contract term.

The liability for contract holder deposit funds equals accumulated policy account values, which consist of the deposit payments plus credited interest less withdrawals and amounts assessed through the end of the period.

l) Property and Equipment
Property and equipment used in operations are capitalized and carried at cost less accumulated depreciation and are reported within Other assets in the Consolidated balance sheets. At December 31, 2020, property and equipment totaled $2.0 billion, consisting principally of capitalized software costs of $1.3 billion incurred to develop or obtain computer software for internal use and company-owned facilities of $260 million. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets. For capitalized software, the estimated useful life is generally three to five years, but can be as long as 15 years and for company-owned facilities the estimated useful life is 40 years. At December 31, 2019, property and equipment totaled $1.9 billion.

m) Foreign currency remeasurement and translation
The functional currency for each of our foreign operations is generally the currency of the local operating environment. Transactions in currencies other than a foreign operation's functional currency are remeasured into the functional currency, and the resulting foreign exchange gains and losses are reflected in Net realized gains (losses) in the Consolidated statements of operations. Functional currency assets and liabilities are translated into the reporting currency, U.S. dollars, using period end exchange rates and the related translation adjustments are recorded as a separate component of AOCI in Shareholders' equity. Functional statement of operations amounts expressed in functional currencies are translated using average exchange rates.

n) Administrative expenses
Administrative expenses generally include all operating costs other than policy acquisition costs. The North America Commercial P&C Insurance segment manages and uses an in-house third-party claims administrator, ESIS Inc. (ESIS). ESIS performs claims management and risk control services for domestic and international organizations that self-insure P&C exposures as well as internal P&C exposures. The net operating income of ESIS is included within Administrative expenses in the Consolidated statements of operations and were $18 million, $47 million, and $49 million for the years ended December 31, 2020, 2019, and 2018, respectively.

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

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

p) Earnings per share
Basic earnings per share is calculated using the weighted-average shares outstanding, including participating securities with non-forfeitable rights to dividends such as unvested restricted stock. All potentially dilutive securities, including stock options are excluded from the basic earnings per share calculation. In calculating diluted earnings per share, the weighted-average shares outstanding is increased to include all potentially dilutive securities. Basic and diluted earnings per share are calculated by dividing net income by the applicable weighted-average number of shares outstanding during the year.

q) Share-based compensation
Chubb measures and records compensation cost for all share-based payment awards at grant-date fair value. Compensation costs are recognized for vesting of share-based payment awards with only service conditions on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award were, in substance, multiple awards. For retirement-eligible participants, compensation costs for certain share-based payment awards are recognized immediately at the date of grant. Refer to Note 12 for additional information.

adverse deviation. Interest rates used in calculating reserves range from less than 1.0 percent to 9.0 percent at December 31, 2020 compared to less than 1.0 percent to 11.0 percent at December 31, 2019. Actual results could differ materially from these estimates. Management monitors actual experience and where circumstances warrant, will revise assumptions and the related reserve estimates. Revisions are recorded in the period they are determined.

Certain of our long-duration contracts are supported by assets that do not qualify for separate account reporting under GAAP. These assets are classified as non-qualified separate account assets and reported in Other investments and the offsetting liabilities are reported in Future policy benefits in the Consolidated balance sheets. Changes in the fair value of separate account assets that do not qualify for separate account reporting under GAAP are reported in Other income (expense) and the offsetting movements in the liabilities are included in Policy benefits in the Consolidated statements of operations.

j) Assumed reinsurance programs involving minimum benefit guarantees under variable annuity contracts
Chubb reinsures various death and living benefit guarantees associated with variable annuities issued primarily in the United States. We generally receive a monthly premium during the accumulation phase of the covered annuities (in-force) based on a percentage of either the underlying accumulated account values or the underlying accumulated guaranteed values. Depending on an annuitant's age, the accumulation phase can last many years. To limit our exposure under these programs, all reinsurance treaties include annual or aggregate claim limits and many include an aggregate deductible.

The guarantees which are payable on death, referred to as guaranteed minimum death benefits (GMDB), principally cover shortfalls between accumulated account value at the time of an annuitant's death and either i) an annuitant's total deposits; ii) an annuitant's total deposits plus a minimum annual return; or iii) the highest accumulated account value attained at any policy anniversary date. In addition, a death benefit may be based on a formula specified in the variable annuity contract that uses a percentage of the growth of the underlying contract value. Liabilities for GMDBs are based on cumulative assessments or premiums to date multiplied by a benefit ratio that is determined by estimating the present value of benefit payments and related adjustment expenses divided by the present value of cumulative assessment or expected premiums during the contract period.

Under reinsurance programs covering GLBs, we assume the risk of guaranteed minimum income benefits (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. Our GLB reinsurance products meet the definition of a derivative for accounting purposes and are carried at fair value with changes in fair value recognized in Realized gains (losses) in the Consolidated statement of operations. Refer to Note 10 a) for additional information.

k) Deposit assets and liabilities
Deposit assets arise from ceded reinsurance contracts purchased that do not transfer significant underwriting or timing risk. Deposit liabilities include reinsurance deposit liabilities and contract holder deposit funds. The reinsurance deposit liabilities arise from contracts sold for which there is not a significant transfer of risk. Contract holder deposit funds represent a liability for investment contracts sold that do not meet the definition of an insurance contract, and certain of these contracts are sold with a guaranteed rate of return. Under deposit accounting, consideration received or paid is recorded as a deposit asset or liability in the balance sheet as opposed to recording premiums and losses in the statement of operations.

Interest income on deposit assets, representing the consideration received or to be received in excess of cash payments related to the deposit contract, is earned based on an effective yield calculation. The calculation of the effective yield is based on the amount and timing of actual cash flows at the balance sheet date and the estimated amount and timing of future cash flows. The effective yield is recalculated periodically to reflect revised estimates of cash flows. When a change in the actual or estimated cash flows occurs, the resulting change to the carrying amount of the deposit asset is reported as income or expense. Deposit assets of $107 million and $93 million at December 31, 2020 and 2019, respectively, are reflected in Other assets in the Consolidated balance sheets and the accretion of deposit assets related to interest pursuant to the effective yield calculation is reflected in Net investment income in the Consolidated statements of operations.

Deposit liabilities include reinsurance deposit liabilities of $86 million and $88 million and contract holder deposit funds of $2.2 billion and $2.0 billion at December 31, 2020 and 2019, respectively. Deposit liabilities are reflected in Accounts payable, accrued expenses, and other liabilities in the Consolidated balance sheets. At contract inception, the deposit liability equals net cash received. An accretion rate is established based on actuarial estimates whereby the deposit liability is increased to the estimated amount payable over the contract term. The deposit accretion rate is the rate of return required to fund expected future payment obligations. We periodically reassess the estimated ultimate liability and related expected rate of

This liability includes a provision for both reported claims (case reserves) and incurred but not reported claims (IBNR reserves). IBNR reserve estimates are generally calculated by first projecting the ultimate cost of all losses that have occurred (expected losses), and then subtracting paid losses, case reserves, and loss expenses. The methods of determining such estimates and establishing the resulting liability are reviewed regularly and any adjustments are reflected in income in the period in which they become known. Future developments may result in losses and loss expenses materially greater or less than recorded amounts.

Except for net unpaid loss and loss expense reserves of $26 million, net of discount, held at December 31, 2020, representing certain structured settlements for which the timing and amount of future claim payments are reliably determinable and $42 million, net of discount, of certain reserves for unsettled claims, Chubb does not discount its P&C loss reserves. This compares with reserves of $31 million for certain structured settlements and $43 million of certain reserves for unsettled claims at December 31, 2019. Structured settlements represent contracts purchased from life insurance companies primarily to settle workers' compensation claims, where payments to the claimant by the life insurance company are expected to be made in the form of an annuity. Chubb retains the liability to the claimant in the event that the life insurance company fails to pay. At December 31, 2020, the liability due to claimants was $548 million, net of discount, and reinsurance recoverables due from the life insurance companies was $522 million, net of discount. For structured settlement contracts where payments are guaranteed regardless of claimant life expectancy, the amounts recoverable from the life insurance companies at December 31, 2020 are included in Other assets in the Consolidated balance sheets, as they do not meet the requirements for reinsurance accounting.

Included in Unpaid losses and loss expenses are liabilities for asbestos and environmental (A&E) claims and expenses. These unpaid losses and loss expenses are principally related to claims arising from remediation costs associated with hazardous waste sites and bodily-injury claims related to asbestos products and environmental hazards. The estimation of these liabilities is particularly sensitive to changes in the legal environment including specific settlements that may be used as precedents to settle future claims. However, Chubb does not anticipate future changes in laws and regulations in setting its A&E reserve levels.

Also included in Unpaid losses and loss expenses is the fair value adjustment of $110 million and $145 million at December 31, 2020 and 2019, respectively, related to Chubb Corp's historical unpaid losses and loss expenses. The estimated fair value consists of the present value of the expected net unpaid loss and loss adjustment expense payments adjusted for an estimated risk margin. The estimated cash flows are discounted at a risk free rate. The estimated risk margin varies based on the inherent risks associated with each type of reserve. The fair value is amortized through Amortization of purchased intangibles on the consolidated statements of operations through the year 2032, based on the estimated payout patterns of unpaid loss and loss expenses at the acquisition date.

Our loss reserves are presented net of contractual deductible recoverable amounts due from policyholders. Under the terms of certain high deductible policies which we offer, such as workers' compensation and general liability, our customers are responsible to reimburse us for an agreed-upon dollar amount per claim. In nearly all cases we are required under such policies to pay covered claims first, and then seek reimbursement for amounts within the applicable deductible from our customers. We generally seek to mitigate this risk through collateral agreements.

Prior period development arises from changes to loss estimates recognized in the current year that relate to loss reserves first reported in previous calendar years and excludes the effect of losses from the development of earned premiums from previous accident years.

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

i) Future policy benefits

The valuation of long-duration contract reserves requires management to make estimates and assumptions regarding expenses, mortality, persistency, and investment yields. Estimates are primarily based on historical experience and include a margin for

Repurchase agreements
Similar to securities lending arrangements, securities sold under repurchase agreements, whereby Chubb sells securities and repurchases them at a future date for a predetermined price, are accounted for as collateralized investments and borrowings and are recorded at the contractual repurchase amounts plus accrued interest. Assets to be repurchased are the same or substantially the same as the assets transferred, and the transferor, through right of substitution, maintains the right and ability to redeem the collateral on short notice. The fair value of the underlying securities is included in fixed maturities and equity securities. In contrast to securities lending programs, the use of cash received is not restricted. We report the obligation to return the cash as Repurchase agreements in the Consolidated balance sheets and record the fees under these repurchase agreements within Interest expense on the Consolidated statement of operations.

Refer to Note 4 for a discussion on the determination of fair value for Chubb's various investment securities.

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

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:

	December 31		
(in millions of U.S. dollars)	**2020**	2019	2018
Cash	**$ 1,747**	$ 1,537	$ 1,247
Restricted cash	**89**	109	93
Total cash and restricted cash shown in the Consolidated statements of cash flows	**$ 1,836**	$ 1,646	$ 1,340

g) Goodwill and Other intangible assets
Goodwill represents the excess of the cost of acquisitions over the fair value of net assets acquired and is not amortized. Goodwill is assigned at acquisition to the applicable reporting unit of the acquired entities giving rise to the goodwill. Goodwill impairment tests are performed annually or more frequently if circumstances indicate a possible impairment. For goodwill impairment testing, we use a qualitative assessment to determine whether it is more likely than not (i.e., more than a 50 percent probability) that the fair value of a reporting unit is greater than its carrying amount. If our assessment indicates less than a 50 percent probability that fair value exceeds carrying value, we quantitatively estimate a reporting unit's fair value. Goodwill recorded in connection with investments in partially-owned insurance companies is recorded in Investments in partially-owned insurance companies and is also measured for impairment annually.

Indefinite lived intangible assets are not subject to amortization. Finite lived intangible assets are amortized over their useful lives, generally with an average original useful life of 25 years. Intangible assets are regularly reviewed for indicators of impairment. Impairment is recognized if the carrying amount is not recoverable from its undiscounted cash flows and is measured as the difference between the carrying amount and fair value.

h) Unpaid losses and loss expenses
A liability is established for the estimated unpaid losses and loss expenses under the terms of, and with respect to, Chubb's policies and agreements. Similar to premiums that are recognized as revenues over the coverage period of the policy, a liability for unpaid losses and loss expenses is recognized as expense when insured events occur over the coverage period of the policy.

Partially-owned investment companies

Partially-owned investment companies where our ownership interest is in excess of three percent are accounted for under the equity method because Chubb exerts significant influence. These investments apply investment company accounting to determine operating results, and Chubb retains the investment company accounting in applying the equity method.

- This means that investment income, realized gains or losses, and unrealized gains or losses are included in the portion of equity earnings reflected in Other (income) expense.
- As a result of the timing of the receipt of valuation data from the investment managers, these investments are generally reported on a three-month lag.

Other

- Policy loans are carried at outstanding balance and interest income is reflected in Net investment income.
- Life insurance policies are carried at policy cash surrender value and income is reflected in Other (income) expense.
- Non-qualified separate account assets are supported by assets that do not qualify for separate accounting reporting under GAAP. The underlying securities are recorded on a trade date basis and carried at fair value. Unrealized gains and losses on non-qualified separate account assets are reflected in Other (income) expense.

Investments in partially-owned insurance companies
Investments in partially-owned insurance companies primarily represent direct investments in which Chubb has significant influence and as such, meet the requirements for equity accounting. Generally, we own twenty percent or more of the investee's shares. We report our share of the net income or loss of the partially-owned insurance companies in Other (income) expense.

Derivative instruments
Chubb recognizes all derivatives at fair value in the Consolidated balance sheets in either Accounts payable, accrued expenses, and other liabilities or Other assets. Changes in fair value are included in Net realized gains (losses) in the Consolidated statements of operations. We did not designate any derivatives as accounting hedges. We participate in derivative instruments in two principal ways:

(i) To sell protection to customers as an insurance or reinsurance contract that meets the definition of a derivative for accounting purposes. This category principally comprised our GLB contracts; and

(ii) To mitigate financial risks and manage certain investment portfolio risks and exposures, including assets and liabilities held in foreign currencies. We use derivative instruments including futures, options, swaps, and foreign currency forward contracts. Refer to Note 10 for additional information.

Securities lending program
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 which is recorded within Net investment income in the Consolidated statement of operations.

Borrowers provide collateral, in the form of either cash or approved securities, at a minimum of 102 percent of the fair value of the loaned securities. Each security loan is deemed to be an overnight transaction. Cash collateral is invested in a collateral pool which is managed by the banking institution. The collateral pool is subject to written investment guidelines with key objectives which include the safeguard of principal and adequate liquidity to meet anticipated redemptions. The fair value of the loaned securities is monitored on a daily basis, with additional collateral obtained or refunded as the fair value of the loaned securities changes. The collateral is held by the third-party banking institution, and the collateral can only be accessed in the event that the institution borrowing the securities is in default under the lending agreement. As a result of these restrictions, we consider our securities lending activities to be non-cash investing and financing activities. An indemnification agreement with the lending agent protects us in the event a borrower becomes insolvent or fails to return any of the securities on loan.

The fair value of the securities on loan is included in fixed maturities and equity securities in the Consolidated balance sheets. The securities lending collateral is reported as a separate line in the Consolidated balance sheets with a related liability reflecting our obligation to return the collateral plus interest.

Examples of criteria that are collectively evaluated to determine if a credit loss has occurred include the following:

- The extent to which the fair value is less than amortized cost;
- Adverse conditions related to the security, industry, or geographic area;
- Downgrades in the security's credit rating by a rating agency; and
- Failure of the issuer to make scheduled principal or interest payments

AFS securities that meet any one of the criteria included above will be subject to a discounted cash flow analysis by comparing the present value of expected future cash flows with the amortized cost basis. Projected cash flows are driven primarily by assumptions regarding probability of default and the timing and amount of recoveries associated with defaults. Chubb developed the projected cash flows using market data, issuer-specific information, and credit ratings. In combination with contractual cash flows and the use of historical default and recovery data by Moody's Investors Service (Moody's) rating category we generate expected cash flows using the average cumulative issuer-weighted global default rates by letter rating.

If the present value of expected future cash flows is less than the amortized cost, a credit loss exists and an allowance for credit losses will be recognized. If the present value of expected future cash flows is equal to or greater than the amortized cost basis, management will conclude an expected credit loss does not exist.

Management reviews credit losses and the valuation allowance for expected credit losses each quarter. When all or a portion of a fixed maturity security is identified to be uncollectible and written off, the valuation allowance for expected credit losses is reduced by the same amount. In general, a security is considered uncollectible no later than when all efforts to collect contractual cash flows have been exhausted. Below are considerations for when a security may be deemed uncollectible:

- We have sufficient information to determine that the issuer of the security is insolvent;
- We receive notice that the issuer of the security has filed for bankruptcy, and the collectability is expected to be adversely impacted by the bankruptcy;
- The issuer of a security has violated multiple debt covenants;
- Amounts have been past due for a specified period of time with no response from the issuer;
- A significant deterioration in the value of the collateral has occurred;
- We have received correspondence from the issuer of the security indicating that it doesn't intend to pay the contractual principal and interest.

We elected to not measure an allowance for accrued investment income as uncollectible balances are written off in a timely manner, typically 30 to 45 days after uncollected balances are due.

Prior to January 1, 2020, fixed income securities were evaluated individually for other-than-temporary impairment (OTTI) and a realized loss was recognized once certain criteria were met.

Other investments

Other investments principally comprise investment funds, limited partnerships, partially-owned investment companies, life insurance policies, policy loans, and non-qualified separate account assets.

Investment funds and limited partnerships

Investment funds, limited partnerships, and all other investments over which Chubb cannot exercise significant influence are accounted for as follows. Generally, we own less than three percent of the investee's shares.

- Income and expenses from these funds are reported within Net investment income.
- These funds are carried at net asset value, which approximates fair value with changes in fair value recorded in net realized gains (losses) on the Consolidated statement of operations. Refer to Note 4 for a further discussion on net asset value.
- As a result of the timing of the receipt of valuation data from the investment managers, these investments are generally reported on a three-month lag.
- Sales of these investments are reported within Net realized gains (losses).

The value of reinsurance business assumed is the deferred gain or loss related to loss portfolio transfers assumed and is calculated as the difference between the estimated ultimate value of the liabilities assumed under retroactive reinsurance contracts over consideration received. The gain or loss is amortized and recorded to Losses and loss expenses based on the payment pattern of the losses assumed. The unamortized value is reviewed regularly to determine if it is recoverable based upon the terms of the contract, estimated losses and loss expenses, and anticipated investment income. Unrecoverable amounts are expensed in the period identified. The value of reinsurance business assumed at December 31, 2020 and 2019 were immaterial.

e) Investments

Fixed maturities, equity securities, and short-term investments

Fixed maturities are classified as either available for sale or held to maturity.

- Available for sale (AFS) portfolio is reported at fair value, net of a valuation allowance for credit losses, with changes in fair value recorded as a separate component of AOCI in Shareholders' equity.
- Held to maturity (HTM) portfolio includes securities for which we have the ability and intent to hold to maturity or redemption and is reported at amortized cost, net of a valuation allowance for credit losses.

Equity securities are reported at fair value with changes in fair value recorded in net realized gains (losses) on the Consolidated statement of operations.

Short-term investments comprise securities due to mature within one year of the date of purchase and are recorded at fair value which typically approximates cost.

Interest, dividend income, and amortization of fixed maturity market premiums and discounts, related to these securities are recorded in Net investment income, net of investment management and custody fees, in the Consolidated statement of operations.

In addition, net investment income includes the amortization of the fair value adjustment related to the acquired invested assets of The Chubb Corporation (Chubb Corp). An adjustment of $1,652 million related to the fair value of Chubb Corp's fixed maturities securities was recorded (fair value adjustment) at the date of acquisition. At December 31, 2020, the remaining balance of this fair value adjustment was $213 million which is expected to amortize over the next two years; however, the estimate could vary materially based on current market conditions, bond calls, and the duration of the acquired investment portfolio. In addition, sales of these acquired fixed maturities would also reduce the fair value adjustment balance. For mortgage-backed securities and any other holdings for which there is a prepayment risk, prepayment assumptions are evaluated and revised as necessary. Any adjustments required due to the resultant change in effective yields and maturities are recognized prospectively. Prepayment fees or call premiums that are only payable when a security is called prior to its maturity are earned when received and reflected in Net investment income.

Valuation allowance for fixed income securities

Management evaluates current expected credit losses (CECL) for all HTM securities each quarter. U.S. treasury and agency securities and U.S. government agency mortgage-backed securities are assumed to have no risk of non-payment and therefore are excluded from the CECL evaluation. The remaining HTM securities are evaluated for potential credit loss on a collective pool basis. We elected to pool HTM securities by 1) external credit rating and 2) time to maturity (duration). These characteristics are the most representative of similar risk characteristics within our portfolio. Chubb pools HTM securities and calculates an expected credit loss for each pool using Moody's corporate bond default average, corporate bond recovery rate, and an economic cycle multiplier. The multiplier is based on the leading economic index and will adjust the average default frequency for a forward-looking economic outlook. Management monitors the credit quality of HTM securities through the review of external credit ratings on a quarterly basis.

Management evaluates expected credit losses (ECL) for AFS securities when fair value is below amortized cost. AFS securities are evaluated for potential credit loss on an individual security level but the evaluation may use assumptions consistent with expectations of credit losses for a group of similar securities. If management has the intent to sell or will be required to sell the security before recovery, the entire impairment loss will be recorded through income to net realized gains and losses. If management does not have the intent to sell or will not be required to sell the security before recovery, an allowance for credit losses is established and is recorded through income to net realized gains and losses, and the non-credit loss portion is recorded through other comprehensive income.

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

Reinsurance recoverable is presented net of a valuation allowance for uncollectible reinsurance determined based upon a review of the financial condition of reinsurers and other factors. The valuation allowance for uncollectible reinsurance is based on an estimate of the reinsurance recoverable balance that will ultimately be unrecoverable due to reinsurer insolvency, a contractual dispute, or any other reason. The valuation of this allowance includes several judgments including certain aspects of the allocation of reinsurance recoverable on IBNR claims by reinsurer and a default analysis to estimate uncollectible reinsurance. The primary components of the default analysis are reinsurance recoverable balances by reinsurer, net of collateral, and default factors used to determine the portion of a reinsurer's balance deemed uncollectible. The definition of collateral for this purpose requires some judgment and is generally limited to assets held in a Chubb-only beneficiary trust, letters of credit, and liabilities held with the same legal entity for which Chubb believes there is a contractual right of offset. The determination of the default factor is principally based on the financial strength rating of the reinsurer. Default factors require considerable judgment and are determined using the current financial strength rating, or rating equivalent, of each reinsurer as well as other key considerations and assumptions. Changes in the valuation allowance for uncollectible reinsurance recoverables are recorded in Losses and loss expenses in the Consolidated statements of operations. Our methodology to calculate the valuation allowance was consistent with the new expected credit loss guidance adopted on January 1, 2020. Therefore, there was no change to the valuation allowance upon adoption. The more significant considerations include, but are not necessarily limited to, the following:

- For reinsurers that maintain a financial strength rating from a major rating agency, and for which recoverable balances are considered representative of the larger population (i.e., default probabilities are consistent with similarly rated reinsurers and payment durations conform to averages), the financial rating is based on a published source and the default factor is based on published default statistics of a major rating agency applicable to the reinsurer's particular rating class. When a recoverable is expected to be paid in a brief period of time by a highly rated reinsurer, such as certain property catastrophe claims, a default factor may not be applied;
- For balances recoverable from reinsurers that are both unrated by a major rating agency and for which management is unable to determine a credible rating equivalent based on a parent, affiliate, or peer company, we determine a rating equivalent based on an analysis of the reinsurer that considers an assessment of the creditworthiness of the particular entity, industry benchmarks, or other factors as considered appropriate. We then apply the applicable default factor for that rating class. For balances recoverable from unrated reinsurers for which the ceded reserve is below a certain threshold, we generally apply a default factor of 34 percent, consistent with published statistics of a major rating agency;
- For balances recoverable from reinsurers that are either insolvent or under regulatory supervision, we establish a default factor and resulting valuation allowance for uncollectible reinsurance based on reinsurer-specific facts and circumstances. Upon initial notification of an insolvency, we generally recognize an expense for a substantial portion of all balances outstanding, net of collateral, through a combination of write-offs of recoverable balances and increases to the valuation allowance for uncollectible reinsurance. When regulatory action is taken on a reinsurer, we generally recognize a default factor by estimating an expected recovery on all balances outstanding, net of collateral. When sufficient credible information becomes available, we adjust the valuation allowance for uncollectible reinsurance by establishing a default factor pursuant to information received; and
- For other recoverables, management determines the valuation allowance for uncollectible reinsurance based on the specific facts and circumstances.

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

The methods used to determine the valuation allowance for uncollectible high deductible recoverable amounts and valuation allowance for insurance and reinsurance balances receivable are similar to the processes used to determine the valuation allowance for uncollectible reinsurance recoverable. For information on high deductible policies, refer to section h) Unpaid losses and loss expenses, below.

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

include those contracts with fixed and guaranteed premiums and benefits. Benefits and expenses are matched with income to result in the recognition of profit over the life of the contracts.

Retroactive loss portfolio transfer (LPT) contracts in which the insured loss events occurred prior to contract inception are evaluated to determine whether they meet criteria for reinsurance accounting. If reinsurance accounting is appropriate, written premiums are fully earned and corresponding losses and loss expenses recognized at contract inception. These contracts can cause significant variances in gross premiums written, net premiums written, net premiums earned, and net incurred losses in the years in which they are written. Reinsurance contracts sold not meeting the criteria for reinsurance accounting are recorded using the deposit method as described below in Note 1 k).

Reinsurance premiums assumed are based on information provided by ceding companies supplemented by our own estimates of premium when we have not received ceding company reports. Estimates are reviewed and adjustments are recorded in the period in which they are determined. Premiums are earned over the coverage terms of the related reinsurance contracts and range from one to three years.

c) Deferred policy acquisition costs and value of business acquired

Policy acquisition costs consist of commissions (direct and ceded), premium taxes, and certain underwriting costs related directly to the successful acquisition of new or renewal insurance contracts. A VOBA intangible asset is established upon the acquisition of blocks of long-duration contracts in a business combination and represents the present value of estimated net cash flows for the contracts in force at the acquisition date. Acquisition costs and VOBA, collectively policy acquisition costs, are deferred and amortized. Amortization is recorded in Policy acquisition costs in the Consolidated statements of operations. Policy acquisition costs on P&C contracts are generally amortized ratably over the period in which premiums are earned. Policy acquisition costs on traditional long-duration contracts are amortized over the estimated life of the contracts, generally in proportion to premium revenue recognized based upon the same assumptions used in estimating the liability for future policy benefits. For non-traditional long-duration contracts, we amortize policy acquisition costs over the expected life of the contracts in proportion to expected gross profits. The effect of changes in estimates of expected gross profits is reflected in the period the estimates are revised. Policy acquisition costs are reviewed to determine if they are recoverable from future income, including investment income. Unrecoverable policy acquisition costs are expensed in the period identified.

Advertising costs are expensed as incurred except for direct-response campaigns that qualify for cost deferral, principally related to long-duration A&H business produced by the Overseas General Insurance segment, which are deferred and recognized as a component of Policy acquisition costs. For individual direct-response marketing campaigns that we can demonstrate have specifically resulted in incremental sales to customers and such sales have probable future economic benefits, incremental costs directly related to the marketing campaigns are capitalized as Deferred policy acquisition costs. Deferred policy acquisition costs, including deferred marketing costs, are reviewed regularly for recoverability from future income, including investment income, and amortized in proportion to premium revenue recognized, primarily over a ten-year period, the expected economic future benefit period based upon the same assumptions used in estimating the liability for future policy benefits. The expected future benefit period is evaluated periodically based on historical results and adjusted prospectively. The amount of deferred marketing costs reported in Deferred policy acquisition costs in the Consolidated balance sheets was $226 million and $246 million at December 31, 2020 and 2019, respectively. Amortization expense for deferred marketing costs was $99 million, $109 million, and $114 million for the years ended December 31, 2020, 2019, and 2018, respectively.

d) Reinsurance

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

For both ceded and assumed reinsurance, risk transfer requirements must be met in order to account for a contract as reinsurance, principally resulting in the recognition of cash flows under the contract as premiums and losses. To meet risk transfer requirements, a reinsurance contract must include insurance risk, consisting of both underwriting and timing risk, and a reasonable possibility of a significant loss for the assuming entity. To assess risk transfer for certain contracts, Chubb generally develops expected discounted cash flow analyses at contract inception. Deposit accounting is used for contracts that do not meet risk transfer requirements. Deposit accounting requires that consideration received or paid be recorded in the balance sheet as opposed to recording premiums written or losses incurred in the statement of operations. Non-refundable fees on deposit contracts are earned based on the terms of the contract described below in Note 1 k).

1. Summary of significant accounting policies

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 15 for additional information.

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

- unpaid loss and loss expense reserves, including long-tail asbestos and environmental (A&E) reserves and non-A&E casualty exposures;
- future policy benefits reserves;
- amortization of deferred policy acquisition costs and value of business acquired (VOBA);
- reinsurance recoverable, including a valuation allowance for uncollectible reinsurance;
- the assessment of risk transfer for certain structured insurance and reinsurance contracts;
- the valuation of the investment portfolio and assessment of valuation allowance for expected credit losses;
- the valuation of deferred income taxes;
- the valuation of derivative instruments related to guaranteed living benefits (GLB);
- the valuation and amortization of purchased intangibles; and
- the assessment of goodwill for impairment.

b) Premiums

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

For property and casualty (P&C) insurance and reinsurance products, premiums written are primarily earned on a pro-rata basis over the policy terms to which they relate. Unearned premiums represent the portion of premiums written applicable to the unexpired portion of the policies in force. For retrospectively-rated policies, written premiums are adjusted to reflect expected ultimate premiums consistent with changes to incurred losses, or other measures of exposure as stated in the policy, and earned over the policy coverage period.

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

Premiums from long-duration contracts such as certain traditional term life, whole life, endowment, and long-duration personal accident and health (A&H) policies are generally recognized as revenue when due from policyholders. Traditional life policies

CONSOLIDATED STATEMENTS OF CASH FLOWS

Chubb Limited and Subsidiaries

For the years ended December 31, 2020, 2019, and 2018

(in millions of U.S. dollars)	2020	2019	2018
Cash flows from operating activities			
Net income	**$ 3,533**	$ 4,454	$ 3,962
Adjustments to reconcile net income to net cash flows from operating activities			
Net realized (gains) losses	**498**	530	652
Amortization of premiums/discounts on fixed maturities	**367**	395	592
Amortization of purchased intangibles	**290**	305	339
Deferred income taxes	**(333)**	(97)	16
Unpaid losses and loss expenses	**4,664**	(257)	570
Unearned premiums	**846**	1,051	654
Future policy benefits	**236**	215	235
Insurance and reinsurance balances payable	**535**	(302)	722
Accounts payable, accrued expenses, and other liabilities	**(98)**	(207)	375
Income taxes payable	**46**	(7)	161
Insurance and reinsurance balances receivable	**(114)**	(270)	(981)
Reinsurance recoverable	**(336)**	838	(1,165)
Deferred policy acquisition costs	**(89)**	(344)	(301)
Other	**(260)**	38	(351)
Net cash flows from operating activities	**9,785**	6,342	5,480
Cash flows from investing activities			
Purchases of fixed maturities available for sale	**(26,298)**	(25,846)	(24,700)
Purchases of to be announced mortgage-backed securities	**—**	—	(35)
Purchases of fixed maturities held to maturity	**(202)**	(229)	(456)
Purchases of equity securities	**(6,419)**	(531)	(207)
Sales of fixed maturities available for sale	**11,377**	13,110	14,001
Sales of to be announced mortgage-backed securities	**—**	6	29
Sales of equity securities	**3,880**	611	315
Maturities and redemptions of fixed maturities available for sale	**12,450**	9,039	7,352
Maturities and redemptions of fixed maturities held to maturity	**995**	946	1,124
Net change in short-term investments	**(81)**	(1,117)	516
Net derivative instruments settlements	**(113)**	(703)	16
Private equity contributions	**(1,924)**	(1,315)	(1,337)
Private equity distributions	**907**	1,390	980
Acquisition of subsidiaries (net of cash acquired of nil, $45, nil)	**—**	(29)	—
Payment, including deposit, for Huatai Group interest	**(1,623)**	(580)	—
Other	**(470)**	(657)	(533)
Net cash flows used for investing activities	**(7,521)**	(5,905)	(2,935)
Cash flows from financing activities			
Dividends paid on Common Shares	**(1,388)**	(1,354)	(1,337)
Common Shares repurchased	**(523)**	(1,530)	(1,044)
Proceeds from issuance of long-term debt	**988**	2,828	2,171
Proceeds from issuance of repurchase agreements	**2,354**	2,817	2,029
Repayment of long-term debt	**(1,301)**	(510)	(2,001)
Repayment of repurchase agreements	**(2,354)**	(2,817)	(2,019)
Proceeds from share-based compensation plans	**145**	204	115
Policyholder contract deposits and other	**470**	514	453
Policyholder contract withdrawals and other	**(386)**	(303)	(358)
Other	**(87)**	—	—
Net cash flows used for financing activities	**(2,082)**	(151)	(1,991)
Effect of foreign currency rate changes on cash and restricted cash	**8**	20	(65)
Net increase in cash and restricted cash	**190**	306	489
Cash and restricted cash – beginning of year	**1,646**	1,340	851
Cash and restricted cash – end of year	**$ 1,836**	$ 1,646	$ 1,340
Supplemental cash flow information			
Taxes paid	**$ 902**	$ 912	$ 503
Interest paid	**$ 524**	$ 512	$ 621

See accompanying notes to the Consolidated Financial Statements

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

Chubb Limited and Subsidiaries

For the years ended December 31, 2020, 2019, and 2018

(in millions of U.S. dollars)	2020	2019	2018
Common Shares			
Balance – beginning of year	**$ 11,121**	$ 11,121	$ 11,121
Cancellation of treasury shares	**(57)**	—	—
Balance – end of year	**11,064**	11,121	11,121
Common Shares in treasury			
Balance – beginning of year	**(3,754)**	(2,618)	(1,944)
Common Shares repurchased	**(516)**	(1,531)	(1,021)
Cancellation of treasury shares	**323**	—	—
Net shares issued under employee share-based compensation plans	**303**	395	347
Balance – end of year	**(3,644)**	(3,754)	(2,618)
Additional paid-in capital			
Balance – beginning of year	**11,203**	12,557	13,978
Net shares issued under employee share-based compensation plans	**(195)**	(178)	(313)
Exercise of stock options	**(50)**	(82)	(49)
Share-based compensation expense	**255**	266	285
Funding of dividends declared to Retained earnings	**(1,398)**	(1,360)	(1,344)
Balance – end of year	**9,815**	11,203	12,557
Retained earnings			
Balance – beginning of year	**36,142**	31,700	27,474
Cumulative effect of adoption of accounting standards (refer to Note 1)	**(72)**	(12)	264
Balance – beginning of year, as adjusted	**36,070**	31,688	27,738
Net income	**3,533**	4,454	3,962
Cancellation of treasury shares	**(266)**	—	—
Funding of dividends declared from Additional paid-in capital	**1,398**	1,360	1,344
Dividends declared on Common Shares	**(1,398)**	(1,360)	(1,344)
Balance – end of year	**39,337**	36,142	31,700
Accumulated other comprehensive income (loss)			
Net unrealized appreciation (depreciation) on investments			
Balance – beginning of year	**2,543**	(545)	1,450
Cumulative effect of adoption of accounting standards	**—**	—	(296)
Balance – beginning of year, as adjusted	**2,543**	(545)	1,154
Change in year, before reclassification from AOCI, net of income tax (expense) benefit of $(426), $(647), and $338	**1,885**	3,057	(1,960)
Amounts reclassified from AOCI, net of income tax (expense) of $(36), nil, and $(41)	**245**	31	261
Change in year, net of income tax (expense) benefit of $(462), $(647), and $297	**2,130**	3,088	(1,699)
Balance – end of year	**4,673**	2,543	(545)
Cumulative foreign currency translation adjustment			
Balance – beginning of year	**(1,939)**	(1,976)	(1,187)
Cumulative effect of adoption of accounting standards	**—**	—	(22)
Balance – beginning of year, as adjusted	**(1,939)**	(1,976)	(1,209)
Change in year, net of income tax (expense) benefit of $(4), $24, and $35	**302**	37	(767)
Balance – end of year	**(1,637)**	(1,939)	(1,976)
Postretirement benefit liability adjustment			
Balance – beginning of year	**15**	73	280
Cumulative effect of adoption of accounting standards	**—**	—	47
Balance – beginning of year, as adjusted	**15**	73	327
Change in year, net of income tax benefit of $50, $18, and $67	**(182)**	(58)	(254)
Balance – end of year	**(167)**	15	73
Accumulated other comprehensive income (loss)	**2,869**	619	(2,448)
Total shareholders' equity	**$ 59,441**	$ 55,331	$ 50,312

See accompanying notes to the Consolidated Financial Statements

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
Chubb Limited and Subsidiaries

For the years ended December 31, 2020, 2019, and 2018 (in millions of U.S. dollars, except per share data)	2020	2019	2018
Revenues			
Net premiums written	**$ 33,820**	$ 32,275	$ 30,579
Increase in unearned premiums	**(703)**	(985)	(515)
Net premiums earned	**33,117**	31,290	30,064
Net investment income	**3,375**	3,426	3,305
Net realized gains (losses):			
Other-than-temporary impairment (OTTI) losses gross	**—**	(90)	(52)
Portion of OTTI losses recognized in other comprehensive income (OCI)	**—**	32	3
Net OTTI losses recognized in income	**—**	(58)	(49)
Net realized gains (losses) excluding OTTI losses	**(498)**	(472)	(603)
Total net realized gains (losses) (includes $(281), $(31), and $(302) reclassified from AOCI)	**(498)**	(530)	(652)
Total revenues	**35,994**	34,186	32,717
Expenses			
Losses and loss expenses	**21,710**	18,730	18,067
Policy benefits	**784**	740	590
Policy acquisition costs	**6,547**	6,153	5,912
Administrative expenses	**2,979**	3,030	2,886
Interest expense	**516**	552	641
Other (income) expense	**(994)**	(596)	(434)
Amortization of purchased intangibles	**290**	305	339
Chubb integration expenses	**—**	23	59
Total expenses	**31,832**	28,937	28,060
Income before income tax	**4,162**	5,249	4,657
Income tax expense (includes benefit of $(36), nil, and $(41) on unrealized gains and losses reclassified from AOCI)	**629**	795	695
Net income	**$ 3,533**	$ 4,454	$ 3,962
Other comprehensive income (loss)			
Unrealized appreciation (depreciation)	**$ 2,311**	$ 3,704	$ (2,298)
Reclassification adjustment for net realized (gains) losses included in net income	**281**	31	302
	2,592	3,735	(1,996)
Change in:			
Cumulative foreign currency translation adjustment	**306**	13	(802)
Postretirement benefit liability adjustment	**(232)**	(76)	(321)
Other comprehensive income (loss), before income tax	**2,666**	3,672	(3,119)
Income tax (expense) benefit related to OCI items	**(416)**	(605)	399
Other comprehensive income (loss)	**2,250**	3,067	(2,720)
Comprehensive income	**$ 5,783**	$ 7,521	$ 1,242
Earnings per share			
Basic earnings per share	**$ 7.82**	$ 9.77	$ 8.55
Diluted earnings per share	**$ 7.79**	$ 9.71	$ 8.49

See accompanying notes to the Consolidated Financial Statements

CONSOLIDATED BALANCE SHEETS

Chubb Limited and Subsidiaries

(in millions of U.S. dollars, except share and per share data)	December 31 2020	December 31 2019
Assets		
Investments		
Fixed maturities available for sale, at fair value, net of valuation allowance – $20 at December 31, 2020 (amortized cost – $85,188 and $82,580)	**$ 90,699**	$ 85,488
Fixed maturities held to maturity, at amortized cost, net of valuation allowance – $44 at December 31, 2020 (fair value – $12,510 and $13,005)	**11,653**	12,581
Equity securities, at fair value	**4,027**	812
Short-term investments, at fair value (amortized cost – $4,349 and $4,291)	**4,345**	4,291
Other investments, at fair value	**7,945**	6,062
Total investments	**118,669**	109,234
Cash	**1,747**	1,537
Restricted cash	**89**	109
Securities lending collateral	**1,844**	994
Accrued investment income	**867**	867
Insurance and reinsurance balances receivable, net of valuation allowance – $44 and $44	**10,480**	10,357
Reinsurance recoverable on losses and loss expenses, net of valuation allowance – $314 and $316	**15,592**	15,181
Reinsurance recoverable on policy benefits	**206**	197
Deferred policy acquisition costs	**5,402**	5,242
Value of business acquired	**263**	306
Goodwill	**15,400**	15,296
Other intangible assets	**5,811**	6,063
Prepaid reinsurance premiums	**2,769**	2,647
Investments in partially-owned insurance companies	**2,813**	1,332
Other assets	**8,822**	7,581
Total assets	**$ 190,774**	$ 176,943
Liabilities		
Unpaid losses and loss expenses	**$ 67,811**	$ 62,690
Unearned premiums	**17,652**	16,771
Future policy benefits	**5,713**	5,373
Insurance and reinsurance balances payable	**6,708**	6,184
Securities lending payable	**1,844**	994
Accounts payable, accrued expenses, and other liabilities	**14,052**	12,214
Deferred tax liabilities	**892**	804
Repurchase agreements	**1,405**	1,416
Short-term debt	**—**	1,299
Long-term debt	**14,948**	13,559
Trust preferred securities	**308**	308
Total liabilities	**131,333**	121,612
Commitments and contingencies (refer to Note 10)		
Shareholders' equity		
Common Shares (CHF 24.15 par value; 477,605,264 and 479,783,864 shares issued; 450,732,625 and 451,971,567 shares outstanding)	**11,064**	11,121
Common Shares in treasury (26,872,639 and 27,812,297 shares)	**(3,644)**	(3,754)
Additional paid-in capital	**9,815**	11,203
Retained earnings	**39,337**	36,142
Accumulated other comprehensive income (AOCI)	**2,869**	619
Total shareholders' equity	**59,441**	55,331
Total liabilities and shareholders' equity	**$ 190,774**	$ 176,943

See accompanying notes to the Consolidated Financial Statements

actual transaction would occur.

The principal considerations for our determination that performing procedures relating to the valuation of level 3 investments in the valuation hierarchy is a critical audit matter are (i) the significant judgment by management in determining the fair value of these investments as they are measured using inputs that are unobservable and are likely to be priced using models or inputs other than quoted prices, which in turn led to a high degree of auditor subjectivity and judgment in performing procedures relating to the estimate; and (ii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of the controls relating to the valuation of level 3 investments. These procedures also included, among others, obtaining pricing from sources other than those used by management for a sample of securities and comparing management's estimate to the prices independently obtained, and the involvement of professionals with specialized skill and knowledge to assist in developing an independent range of prices for a sample of securities and comparing management's estimate to the independently developed ranges.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Philadelphia, PA

February 25, 2021

We have served as the Company's auditor since 1985, which includes periods before the Company became subject to SEC reporting requirements.

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of Unpaid Losses and Loss Expenses, Net of Reinsurance

As described in Note 7 to the consolidated financial statements, as of December 31, 2020, the Company's liability for unpaid losses and loss expenses, net of reinsurance, was approximately $53 billion. The majority of the Company's net unpaid losses and loss expenses arise from the Company's long-tail casualty business (such as general liability and professional liability), U.S. sourced workers' compensation, asbestos-related, environmental pollution and other exposures with high estimation uncertainty. The process of establishing loss reserves requires the use of estimates and judgments based on circumstances underlying the insured loss at the date of accrual. The judgments involved in projecting the ultimate losses include the use and interpretation of various standard actuarial reserving methods that place reliance on the extrapolation of actual historical data, loss development patterns, industry data, and other benchmarks as appropriate. The reserves for the various product lines each require different qualitative and quantitative assumptions and judgments, including changes in business mix or volume, changes in ceded reinsurance structures, changes in claims handling practices, reported and projected loss trends, inflation, the legal environment, and the terms and conditions of the contracts sold to the Company's insured parties.

The principal considerations for our determination that performing procedures relating to the valuation of unpaid losses and loss expenses, net of reinsurance, from the long-tail and other exposures as described above, is a critical audit matter are (i) the significant judgment by management in determining the reserve liability, which in turn led to a high degree of auditor subjectivity and judgment in performing procedures relating to the valuation; (ii) the significant audit effort and judgment in evaluating the audit evidence relating to the actuarial reserving methods and assumptions related to extrapolation of actual historical data, loss development patterns, industry data, other benchmarks, and the impact of qualitative and quantitative subjective factors; and (iii) the audit effort included the involvement of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the Company's valuation of unpaid losses and loss expenses, net of reinsurance, including controls over the selection of actuarial methodologies and development of significant assumptions. These procedures also included, among others, the involvement of professionals with specialized skill and knowledge to assist in performing one or a combination of procedures, including (i) independently estimating reserves on a sample basis using actual historical data and loss development patterns, as well as industry data and other benchmarks, to develop an independent estimate and comparing the independent estimate to management's actuarially determined reserves; and (ii) evaluating management's actuarial reserving methodologies and aforementioned assumptions, as well as assessing qualitative adjustments to carried reserves and the consistency of management's approach period-over-period. Performing these procedures involved testing the completeness and accuracy of data provided by management.

Valuation of Level 3 Investments in the Valuation Hierarchy

As described in Note 4 to the consolidated financial statements, as of December 31, 2020, the Company had total assets measured at fair value of approximately $106 billion, of which approximately $2 billion were categorized as level 3 in the valuation hierarchy. The level 3 investments are measured at fair value using inputs that are unobservable and reflect management's judgments about assumptions that market participants would use in pricing or, for certain of the investments, management obtains and evaluates a single broker quote, which is typically from a market maker. As described by management, the valuation is more subjective when markets are less liquid due to the lack of market based inputs (i.e., stale pricing), which may increase the potential that an investment's estimated fair value is not reflective of the price at which an

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Chubb Limited

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Chubb Limited and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of operations and comprehensive income, of shareholders' equity and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes and financial statement schedules listed in the index appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

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

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS AND INTERNAL CONTROL OVER FINANCIAL REPORTING

Financial Statements

The consolidated financial statements of Chubb Limited (Chubb) were prepared by management, which is responsible for their reliability and objectivity. The statements have been prepared in conformity with accounting principles generally accepted in the United States of America and, as such, include amounts based on informed estimates and judgments of management. Financial information elsewhere in this annual report is consistent with that in the consolidated financial statements.

The Board of Directors (Board), operating through its Audit Committee, which is composed entirely of directors who are not officers or employees of Chubb, provides oversight of the financial reporting process and safeguarding of assets against unauthorized acquisition, use or disposition. The Audit Committee annually recommends the appointment of an independent registered public accounting firm and submits its recommendation to the Board for approval.

The Audit Committee meets with management, the independent registered public accountants and the internal auditor; approves the overall scope of audit work and related fee arrangements; and reviews audit reports and findings. In addition, the independent registered public accountants and the internal auditor meet separately with the Audit Committee, without management representatives present, to discuss the results of their audits; the adequacy of Chubb's internal control; the quality of its financial reporting; and the safeguarding of assets against unauthorized acquisition, use or disposition.

The consolidated financial statements have been audited by an independent registered public accounting firm, PricewaterhouseCoopers LLP, which has been given access to all financial records and related data, including minutes of all meetings of the Board and committees of the Board. Chubb believes that all representations made to our independent registered public accountants during their audits were valid and appropriate.

Management's Report on Internal Control over Financial Reporting

The management of Chubb is responsible for establishing and maintaining adequate internal control over financial reporting. Pursuant to the rules and regulations of the Securities and Exchange Commission, internal control over financial reporting is a process designed by, or under the supervision of our Chief Executive Officer and Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our consolidated financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

As of December 31, 2020, management has evaluated the effectiveness of Chubb's internal control over financial reporting based on the criteria for effective internal control over financial reporting established in "Internal Control - Integrated Framework," issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Based on this evaluation, we have concluded that Chubb's internal control over financial reporting was effective as of December 31, 2020.

PricewaterhouseCoopers LLP, the independent registered public accounting firm that audited the consolidated financial statements of Chubb included in this Annual Report, has issued a report on the effectiveness of Chubb's internal controls over financial reporting as of December 31, 2020. The report, which expresses an unqualified opinion on the effectiveness of Chubb's internal control over financial reporting as of December 31, 2020, is included in this Item under "Report of Independent Registered Public Accounting Firm" and follows this statement.

/s/ Evan G. Greenberg	/s/ Philip V. Bancroft
Evan G. Greenberg	Philip V. Bancroft
Chairman and Chief Executive Officer	Executive Vice President and Chief Financial Officer

Chubb Limited
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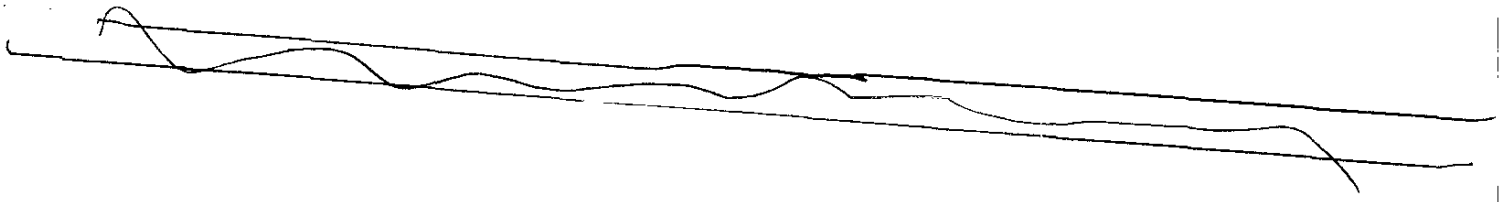
CHUBB LIMITED AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2020



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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2020

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

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

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, a 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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☑

The aggregate market value of voting stock held by non-affiliates as of June 30, 2020 (the last business day of the registrant's most recently completed second fiscal quarter), was approximately $57 billion. For the purposes of this computation, shares held by directors and officers of the registrant have been excluded. Such exclusion is not intended, nor shall it be deemed, to be an admission that such persons are affiliates of the registrant.

As of February 11, 2021, there were 450,224,906 Common Shares par value CHF 24.15 of the registrant outstanding.

Documents Incorporated by Reference

Certain portions of the registrant's definitive proxy statement relating to its 2021 Annual General Meeting of Shareholders are incorporated by reference into Part III of this report.

CHUBB LIMITED INDEX TO 10-K

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PART I

ITEM 1. Business

General

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 December 31, 2020, we had total assets of $191 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 have grown our business through increased premium volume, expansion of product offerings and geographic reach, and the acquisition of other companies to become a global property and casualty (P&C) leader.

During 2020, we completed the purchase of an additional 16.2 percent ownership interest in Huatai Insurance Group Co., Ltd. (Huatai Group) bringing our aggregate ownership interest from 30.9 percent to 47.1 percent as of December 31, 2020. On December 30, 2019, we acquired Banchile Seguros de Vida, an insurance company providing both life and property and casualty coverages in Chile. The results of Huatai Group and Banchile Seguros de Vida are included in the Overseas General Insurance and Life Insurance segments as appropriate, determined by the type of policy written. Refer to Note 2 to the Consolidated Financial Statements for additional information.

With operations in 54 countries and territories, Chubb provides commercial and personal property and casualty insurance, personal accident and supplemental health insurance (A&H), reinsurance, and life insurance to a diverse group of clients. We provide commercial insurance products and service offerings such as risk management programs, loss control, and engineering and complex claims management. We provide specialized insurance products ranging from Directors & Officers (D&O) and professional liability to various specialty-casualty and umbrella and excess casualty lines to niche areas such as aviation and energy. We also offer personal lines insurance coverage including homeowners, automobile, valuables, umbrella liability, and recreational marine products. In addition, we supply personal accident, supplemental health, and life insurance to individuals in select countries.

We serve multinational corporations, mid-size and small businesses with property and casualty insurance and risk engineering services; affluent and high net worth individuals with substantial assets to protect; individuals purchasing life, personal accident, supplemental health, homeowners, automobile, and specialty personal insurance coverage; companies and affinity groups providing or offering accident and health insurance programs and life insurance to their employees or members; and insurers managing exposures with reinsurance coverage.

We make available free of charge through our website (investors.chubb.com, under Financials) our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, if any, filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after they have been electronically filed with or furnished to the U.S. Securities and Exchange Commission (SEC). Also available through our website (under Investor Relations / Corporate Governance) are our Corporate Governance Guidelines, Code of Conduct, and Charters for the Committees of the Board of Directors (the Board). Printed documents are available by contacting our Investor Relations Department (Telephone: +1 (212) 827-4445, E-mail: investorrelations@chubb.com).

We also use our website as a means of disclosing material, non-public information and for complying with our disclosure obligations under SEC Regulation FD (Fair Disclosure). Accordingly, investors should monitor the Investor Relations portion of our website, in addition to following our press releases, SEC filings, and 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. The SEC maintains an Internet site (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file with the SEC.

Customers

For most commercial and personal lines of business we offer, insureds typically use the services of an insurance broker or agent. An insurance broker acts as an agent for the insureds, offering advice on the types and amount of insurance to purchase, and assists in the negotiation of price and terms and conditions. We obtain business from the local and major international insurance brokers and typically pay a commission to brokers for any business accepted and bound. Loss of all or a substantial portion of the business provided by one or more of these brokers could have a material adverse effect on our business. In our

opinion, no material part of our business is dependent upon a single insured or group of insureds. We do not believe that the loss of any one insured would have a material adverse effect on our financial condition or results of operations, and no one insured or group of affiliated insureds account for as much as 10 percent of our total revenues.

Competition

Competition in the insurance and reinsurance marketplace is substantial. We compete on an international and regional basis with major U.S., Bermuda, European, and other international insurers and reinsurers and with underwriting syndicates, some of which have greater financial, technological, marketing, distribution and management resources than we do. In addition, capital market participants have created alternative products that are intended to compete with reinsurance products. We also compete with new companies and existing companies that move into the insurance and reinsurance markets. Competitors include other stock companies, mutual companies, alternative risk sharing groups (such as group captives and catastrophe pools), and other underwriting organizations. Competitors sell through various distribution channels and business models, across a broad array of product lines, and with a high level of variation regarding geographic, marketing, and customer segmentation. We compete for business not only on the basis of price but also on the basis of availability of coverage desired by customers and quality of service.

The insurance industry is changing rapidly. Our ability to compete is dependent on a number of factors, particularly our ability to maintain the appropriate financial strength ratings as assigned by independent rating agencies and effectively utilize new technology in our business. Our broad market capabilities in personal, commercial, specialty, and A&H lines made available by our underwriting expertise, business infrastructure, and global presence, help define our competitive advantage. Our strong balance sheet is attractive to businesses, and our strong capital position and global platform affords us opportunities for growth not available to smaller, less diversified insurance companies. Refer to "Segment Information" for competitive environment by segment.

Trademarks and Trade Names

Various trademarks and trade names we use protect names of certain products and services we offer and are important to the extent they provide goodwill and name recognition in the insurance industry. We use commercially reasonable efforts to protect these proprietary rights, including various trade secret and trademark laws. We intend to retain material trademark rights in perpetuity, so long as it satisfies the use and registration requirements of applicable countries. One or more of the trademarks and trade names could be material to our ability to sell our products and services. We have taken appropriate steps to protect our ownership of key names, and we believe it is unlikely that anyone would be able to prevent us from using names in places or circumstances material to our operations.

Human Capital Management

Our employees are critical to our mission to protect the present and build a better future, by providing our customers with the security from risk that allows people and businesses to grow and prosper. To accomplish this mission, we seek to attract and retain the very best insurance professionals and to provide an inclusive and supportive culture that allows all of our employees to reach their full potential as we deliver insurance solutions and claims service for individuals, families and businesses of all sizes. Our highly collaborative, inclusive approach helps us drive better business outcomes. We track and report internally on key talent metrics including employee demographics, critical role succession planning, diversity data, and employee retention and engagement. This information is regularly reported to senior management as well as the Chubb Board of Directors. At December 31, 2020, we employed approximately 31,000 people in 54 countries and territories around the world, including 53 percent in North America, 12 percent in Europe, Eurasia and Africa, 19 percent in Asia, and 16 percent in Latin America. We believe that employee relations are good.

Diversity and inclusion

Diversity and inclusion are integral to Chubb's culture. We recognize our responsibility to provide opportunity within our own organization, where we aim to foster a diverse and inclusive meritocracy. Our extensive efforts in this area include mentorships, affinity groups, diversity awareness training, and education, open dialogue on race and racism, management development programs, and considering a diverse pool of candidates in recruiting and promotion.

Examples of initiatives include Business Roundtables (our employee affinity groups) and Regional Inclusion Councils, which promote dynamic networking across the business and engage hundreds of employees in constructive dialogue. These circles of support focus on employee onboarding, development and retention and help us build stronger relationships with, and gain deeper insights into, our varied customer and distribution partner communities. Other programs include Chubb Start, which supports the continuous professional development of women who are early in their careers, and Chubb Signatures, a global and regional lecture series for successful senior women, diverse men and inclusion champions to share their unique backgrounds,

experiences and hard-earned lessons in business. In addition, we remain attuned to demographic shifts within our workforce and society to evaluate and update employee policies, procedures and systems that reflect this commitment. We depend on our culture of leadership accountability to continue progress in diversity and inclusion at Chubb.

Attraction, Development, and Retention

The foundation to Chubb's long-term success is our disciplined approach to attracting, developing and retaining the next generation of insurance professional and leaders. We strive to be an inclusive meritocracy, where all employees regardless of race, gender or background can thrive. Learning and professional development are central to the Chubb culture, and we are committed to providing opportunities to evolve professionally. Our talent development efforts are for all employee levels and we expect our employees to own and drive their development by availing themselves of the structured and unstructured learning we offer, including on-the-job training, through personal interaction and involvement, or via online and classroom learning. Chubb has made substantial investments for a robust technical and leadership development environment and, where appropriate, fills open positions with internal sourcing of talent.

Compensation and Benefits

Chubb is committed to delivering competitive compensation and benefits to its employees worldwide as a means to attract and retain a highly qualified, experienced, talented and motivated workforce. We vary and adjust our offerings to support the human resources requirements of our business in markets around the world in which we operate. Additionally, we structure our compensation programs for leaders to include a mix of short- and long-term awards, with a focus on linking pay to Chubb's performance and the enhancement of shareholder value over the medium- and long-term.

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. In 2020, consolidated net premiums earned was $33.1 billion. Additional financial information about our segments, including net premiums earned by geographic region, is included in Note 15 to the Consolidated Financial Statements.

North America Commercial P&C Insurance (42 percent of 2020 Consolidated NPE)

Overview

The North America Commercial P&C Insurance segment comprises operations that provide P&C insurance and services to large, middle market, and small commercial businesses in the U.S., Canada, and Bermuda. This segment includes:

- Major Accounts, the retail division focused on large institutional organizations and corporate companies
- Commercial Insurance, which includes the retail division focused on middle market customers and small businesses
- Westchester and Chubb Bermuda, our wholesale and specialty divisions

Products and Distribution

Major Accounts provides a broad array of commercial lines of products and services, including traditional and specialty P&C, and risk management, as well as consumer A&H products to large U.S. and Canadian-based institutional organizations and corporate companies. Major Accounts distributes its insurance products primarily through a limited number of retail brokers. In addition to using brokers, certain products are also distributed through general agents, independent agents, managing general agents (MGA), managing general underwriters, alliances, affinity groups, and direct marketing operations. Products and services offered include property, professional liability, cyber risk, excess casualty, workers' compensation, general liability, automobile liability, commercial marine, surety, environmental, construction, medical risk, inland marine, A&H coverages, as well as claims and risk management products and services.

The Major Accounts operations, which represented approximately 41 percent of North America Commercial P&C Insurance's net premiums earned in 2020, are organized into the following distinct business units, each offering specialized products and services targeted at specific markets:

- Chubb Global Casualty offers a range of customized risk management primary casualty products designed to help large insureds, including national accounts, and managing risk for workers' compensation, general liability and automobile liability coverages as well as offering casualty insurance solutions for commercial real estate. Chubb Global Casualty also provides products which insure specific global operating risks of U.S.-based multinational companies and include deductible programs, captive programs, and paid or incurred loss retrospective plans. Within Chubb Global Casualty, Chubb Alternative Risk Solutions Group underwrites contractual indemnification policies which provides prospective coverage for

loss events within the insured's policy retention levels and underwrites assumed loss portfolio transfer (LPT) contracts in which insured loss events have occurred prior to the inception of the contract.

- Property provides products and services including primary, quota share and excess all-risk insurance, risk management programs and services, commercial, inland marine, and aerospace products.
- Casualty Risk provides coverages including umbrella and excess liability, environmental risk, casualty programs for commercial construction related projects for companies and institutions, and medical risk specialty liability products for the healthcare industry.
- Surety offers a wide variety of surety products and specializes in underwriting both commercial and contract bonds and has the capacity for bond issuance on an international basis.
- Accident & Health (A&H) products include employee benefit plans, occupational accident, student accident, and worldwide travel accident and global medical programs. With respect to products that include supplemental medical and hospital indemnity coverages, we typically pay fixed amounts for claims and are therefore insulated from rising healthcare costs. A&H also provides specialty personal lines products, including credit card enhancement programs (identity theft, rental car collision damage waiver, trip travel, and purchase protection benefits) distributed through affinity groups.
- Financial Lines provides management liability and professional liability (D&O and E&O), transactional risk and cyber risk products to public companies as well as to private and not for profit organizations.
- ESIS Inc. (ESIS) is an in-house third-party claims administrator that performs claims management and risk control services for domestic and international organizations as well as for the North America Commercial P&C Insurance segment. ESIS services include comprehensive medical managed care; integrated disability services; pre-loss control and risk management; health, safety and environmental consulting; salvage and subrogation; and healthcare recovery services. The net results for ESIS are included in North America Commercial P&C Insurance's administrative expenses.

The Commercial Insurance operations, which include Small Commercial, represented approximately 40 percent of North America Commercial P&C Insurance's net premiums earned in 2020. Commercial Insurance provides a broad range of P&C, financial lines, and A&H products targeted to U.S and Canadian-based middle market customers in a variety of industries, while the Small Commercial operations provide a broad range of property and casualty, workers' compensation, small commercial management and professional liability for small businesses based in the U.S.

- Commercial Insurance products and services offered include traditional property and casualty lines of business, including Package, which combines property and general liability, workers' compensation, automobile, umbrella; financial lines of business, including professional liability, management liability and cyber risk coverage; and other lines including environmental, A&H, and international coverages. Commercial Insurance distributes its insurance products through a North American network of independent retail agents, and regional, multinational and digital brokers. Generally, our customers purchase insurance through a single retail agent or broker, do not employ a risk management department, and do not retain significant risk through self-insured retentions. The majority of our customers purchase a Package product or a portfolio of products, which is a collection of insurance offerings designed to cover various needs.
- Small Commercial Insurance products and services offered include property and casualty lines of business, including a business owner policy which contains property and general liability; financial lines, including professional liability, management liability, cyber risk; and other lines including workers' compensation, automobile liability, and international coverages. Products are generally offered through a North American network of independent agents and brokers, as well as eTraditional, which are digital platforms where we electronically quote, bind, and issue for agents and brokers. An example of this is the Chubb Marketplace.

Wholesale and Specialty, which represented approximately 19 percent of North America Commercial P&C Insurance's net premiums earned in 2020, comprises Westchester and Chubb Bermuda.

- Westchester serves the market for business risks that tend to be hard to place or not easily covered by traditional policies due to unique or complex exposures and provides specialty products for property, casualty, environmental, professional liability, inland marine, product recall, small business, binding and program coverages in the U.S., Canada, and Bermuda. Products are offered through the wholesale distribution channel.
- Chubb Bermuda provides commercial insurance products on an excess basis including excess liability, D&O, professional liability, property, and political risk, the latter being written by Sovereign Risk Insurance Ltd., a wholly-owned managing agent. Chubb Bermuda focuses on Fortune 1000 companies and targets risks that are generally low in frequency and high

in severity. Products are offered primarily through the Bermuda offices of major, internationally recognized insurance brokers.

Competitive Environment
Major Accounts competes against a number of large, global carriers as well as regional competitors and other entities offering risk alternatives such as self-insured retentions and captive programs. The markets in which we compete are subject to significant cycles of fluctuating capacity and wide disparities in price adequacy. We pursue a specialist strategy and focus on market opportunities where we can compete effectively based on service levels and product design, while still achieving an adequate level of profitability. We also achieve a competitive advantage through Major Accounts' innovative product offerings and our ability to provide multiple products to a single client due to our nationwide local presence. In addition, all our domestic commercial units are able to deliver global products and coverage to customers in concert with our Overseas General Insurance segment.

The Commercial Insurance operations compete against numerous insurance companies ranging from large national carriers to small and mid-size insurers who provide specialty coverages and standard P&C products. Recent competitive developments include the growth of new digital-based distribution models.

Westchester competes against a number of large, national carriers as well as regional competitors and other entities offering risk alternatives such as self-insured retentions and captive programs. Chubb Bermuda competes against international commercial carriers writing business on an excess of loss basis.

North America Personal P&C Insurance (15 percent of 2020 Consolidated NPE)

Overview
The North America Personal P&C Insurance segment includes the business written by Chubb Personal Risk Services division, which includes high net worth personal lines business, with operations in the U.S. and Canada. This segment provides affluent and high net worth individuals and families with homeowners, automobile and collector cars, valuable articles (including fine arts), personal and excess liability, travel insurance, and recreational marine insurance and services. Our homeowners business, including valuable articles, represented 68 percent of North America Personal P&C Insurance's net premiums earned in 2020.

Products and Distribution
Chubb Personal Risk Services offers comprehensive personal insurance products and services to meet the evolving needs of high net worth families and individuals. Our seamless customer experience and superior coverage protect not only our clients' most valuable possessions, but also their standard of living. Our target customers consist of high net worth consumers with insurance needs that typically extend beyond what mass market carriers can offer. These coverages are offered solely through independent regional agents and brokers.

Competitive Environment
Chubb Personal Risk Services competes against insurance companies of varying sizes that sell personal lines products through various distribution channels, including retail agents as well as online distribution channels. We achieve a competitive advantage through our ability to address the specific needs of high net worth families and individuals, to provide superior service to our customers, and to develop and deploy digital production and processes.

North America Agricultural Insurance (6 percent of 2020 Consolidated NPE)

Overview
The North America Agricultural Insurance segment comprises our U.S. and Canadian-based businesses that provide a variety of coverages including crop insurance, primarily Multiple Peril Crop Insurance (MPCI) and crop-hail insurance 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.

Products and Distribution
Rain and Hail provides comprehensive MPCI and crop-hail insurance coverages.

- MPCI is federally subsidized crop protection from numerous causes of loss, including drought, excessive moisture, freeze, disease and more. The MPCI program is offered in conjunction with the U.S. Department of Agriculture. MPCI products include revenue protection (defined as providing both commodity price and yield coverages), yield protection, margin protection, prevented planting coverage and replant coverage. For additional information on our MPCI program, refer to "Crop Insurance" under Item 7.
- Crop-Hail coverage provides crop protection from damage caused by hail and/or fire, with options in some markets for other perils such as wind or theft. Coverage is provided on an acre-by-acre basis and is available in the U.S. and in some parts of Canada. Crop-Hail can be used in conjunction with MPCI or other comprehensive coverages to offset the deductible and provide protection up to the actual cash value of the crop.

Chubb Agribusiness comprises Commercial Agribusiness and Farm and Ranch Agribusiness.

- Commercial Agribusiness offers specialty P&C coverages for commercial companies that manufacture, process and distribute agricultural products. Commercial products and services include property, general liability for premises/operations and product liability, commercial automobile, workers' compensation, employment practices liability coverage, built-in coverage for premises pollution, cyber and information security, and product withdrawal.

- Farm and Ranch Agribusiness offers an extensive line of coverages for farming operations from Hobby/Gentleman farms to complex corporate farms and equine services including personal use, boarding, and training. Coverages include farm and ranch structures, machinery and other equipment, automobile and other vehicle coverages, and livestock.

Competitive Environment
Rain and Hail primarily operates in a federally regulated program where all approved providers offer the same product forms and rates through independent and/or captive agents. We seek a competitive advantage through our ability to provide superior service to our customers, including the development of digital solutions. Chubb Agribusiness competes against both national and regional competitors offering specialty P&C insurance coverages to companies that manufacture, process, and distribute agricultural products.

Overseas General Insurance (28 percent of 2020 Consolidated NPE)

Overview
The Overseas General Insurance segment comprises Chubb International and Chubb Global Markets (CGM). CGM, our London-based international specialty and excess and surplus lines business, includes Lloyd's of London (Lloyd's) Syndicate 2488, a wholly-owned Chubb syndicate supported by funds at Lloyd's provided by Chubb Corporate Members. Syndicate 2488 has an underwriting capacity of £550 million for the Lloyd's 2021 account year. The syndicate is managed by Chubb's Lloyd's managing agency, Chubb Underwriting Agencies Limited.

Products and Distribution
Chubb International maintains a presence in every major insurance market in the world and is organized geographically along product lines as follows: Europe, Asia Pacific and Far East, Eurasia and Africa, and Latin America. Products offered include commercial P&C lines, including specialty coverages and services, and consumer lines, including A&H and personal lines insurance products. Chubb International's P&C business is generally written, on both a direct and assumed basis, through major international, regional, and local brokers and agents. Certain branded products are also offered via digital-commerce platforms, allowing agents and brokers to quote, bind, and issue policies at their convenience. Property insurance products include traditional commercial fire coverage, as well as energy industry-related, marine, construction, and other technical coverages. Principal casualty products are commercial primary and excess casualty, environmental, and general liability. A&H and other consumer lines products are distributed through brokers, agents, direct marketing programs, including thousands of telemarketers, and sponsor relationships. The A&H operations primarily offer personal accident and supplemental medical coverages including accidental death, business/holiday travel, specified disease, disability, medical and hospital indemnity, and income protection. We are not in the primary healthcare business. With respect to our supplemental medical and hospital indemnity products, we typically pay fixed amounts for claims and are therefore largely insulated from the direct impact of rising healthcare costs. Chubb International specialty coverages include D&O, professional indemnity, cyber, surety, aviation, political risk, and specialty personal lines products. Chubb International personal lines operations provide a wide range of consumer lines

products to meet the needs of specific target markets around the world. Products include high net worth homes, traditional homeowners, automobile, and specialty products that cover smart phones, spectacles and personal cyber risk.

Chubb International's presence in China also includes its 47.1 percent ownership interest in Huatai Group. Huatai Group wholly owns Huatai Property & Casualty Insurance Co., Ltd. (Huatai P&C). Therefore, Chubb owns an approximately 47.1 percent indirect ownership interest in Huatai P&C, which provides a range of commercial and personal P&C products in China, including property, professional liability, product liability, employer liability, business interruption, marine cargo, personal accident and specialty risk. These products are marketed through a variety of distribution channels including over 200 licensed sales locations in 28 Chinese provinces. Chubb is in the process of increasing its ownership interest in Huatai Group.

CGM offers products through its parallel distribution network via two legal entities, Chubb European Group SE (CEG) and Chubb Underwriting Agencies Limited, managing agent of Syndicate 2488. CGM uses the Syndicate to underwrite P&C business on a global basis through Lloyd's worldwide licenses. CGM uses CEG to underwrite similar classes of business through its network of U.K. and European licenses, and in the U.S. where it is eligible to write excess and surplus lines business. Factors influencing the decision to place business with the Syndicate or CEG include licensing eligibilities, capitalization requirements, and client/broker preference. All business underwritten by CGM is accessed through registered brokers. The main lines of business include aviation, property, energy, professional lines, marine, financial lines, and political risk.

Competitive Environment

Chubb International's primary competitors include U.S.-based companies with global operations, as well as non-U.S. global carriers and indigenous companies in regional and local markets. For the A&H lines of business, locally based competitors also include financial institutions and bank owned insurance subsidiaries. Our international operations have the distinct advantage of being part of one of the few international insurance groups with a global network of licensed companies able to write policies on a locally admitted basis. The principal competitive factors that affect the international operations are underwriting expertise and pricing, relative operating efficiency, product differentiation, producer relations, and the quality of policyholder services. A competitive strength of our international operations is our global network and breadth of insurance programs, which assist individuals and business organizations to meet their risk management objectives, while also having a significant presence in all of the countries in which we operate, giving us the advantage of accessing local technical expertise and regulatory environments, understanding local markets and culture, accomplishing a spread of risk, and offering a global network to service multinational accounts.

CGM is one of the preeminent international specialty insurers in London and is an established lead underwriter on a significant portion of the risks it underwrites for all lines of business. All lines of business face competition, depending on the business class, from Lloyd's syndicates, the London market, and other major international insurers and reinsurers. Competition for international risks is also seen from domestic insurers in the country of origin of the insured. CGM differentiates itself from competitors through long standing experience in its product lines, its multiple insurance entities (Syndicate 2488 and CEG), and the quality of its underwriting and claims service.

Global Reinsurance (2 percent of 2020 Consolidated NPE)

Overview

The Global Reinsurance segment represents Chubb's reinsurance operations comprising Chubb Tempest Re Bermuda, Chubb Tempest Re USA, Chubb Tempest Re International, and Chubb Tempest Re Canada. Global Reinsurance markets reinsurance products worldwide under the Chubb Tempest Re brand name and provides solutions for small to mid-sized clients and multinational ceding companies. Global Re offers a broad array of traditional and non-traditional (e.g., loss portfolio transfer) property and casualty products.

Products and Distribution

Global Reinsurance services clients globally through its major units. Major international brokers submit business to one or more of these units' underwriting teams who have built strong relationships with both key brokers and clients by providing a responsive, client-focused approach to risk assessment and pricing. Global Reinsurance's diversified portfolio is produced through reinsurance intermediaries.

Chubb Tempest Re Bermuda principally provides property catastrophe reinsurance to insurers of commercial and personal property. Property catastrophe reinsurance is on an occurrence or aggregate basis and protects a ceding company against an accumulation of losses covered by its issued insurance policies, arising from a common event or occurrence. Chubb Tempest Re Bermuda underwrites reinsurance principally on an excess of loss basis, meaning that its exposure only arises after the ceding

company's accumulated losses have exceeded the attachment point of the reinsurance policy. Chubb Tempest Re Bermuda also writes other types of reinsurance on a limited basis for selected clients.

Chubb Tempest Re USA writes all lines of traditional and specialty P&C reinsurance for the North American market, principally on a treaty basis, with a focus on writing property and casualty reinsurance. Chubb Tempest Re USA underwrites reinsurance on both a proportional and excess of loss basis.

Chubb Tempest Re International provides traditional and specialty P&C reinsurance to insurance companies worldwide, with emphasis on non-U.S. and non-Canadian risks. Chubb Tempest Re International writes all lines of traditional and specialty reinsurance including property, property catastrophe, casualty, marine, and specialty through our London- and Zurich-based offices. Chubb Tempest Re International underwrites reinsurance on both a proportional and excess of loss basis.

Chubb Tempest Re Canada offers a full array of traditional and specialty P&C, and reinsurance to the Canadian market, including casualty, property, property catastrophe, surety, and crop hail. Chubb Tempest Re Canada provides coverage through its Canadian company platform. Chubb Tempest Re Canada underwrites reinsurance on both a proportional and excess of loss basis.

Competitive Environment

The Global Reinsurance segment competes worldwide with major U.S. and non-U.S. reinsurers as well as reinsurance departments of numerous multi-line insurance organizations. In addition, capital markets participants have developed alternative capital sources intended to compete with traditional reinsurance. Additionally, government sponsored or backed catastrophe funds can affect demand for reinsurance. Global Reinsurance is typically involved in the negotiation and quotation of the terms and conditions of the majority of the contracts in which it participates. Global Reinsurance competes effectively in P&C markets worldwide because of Chubb's strong capital position, analytical capabilities, experienced underwriting team and quality customer service. The key competitors in our markets vary by geographic region and product line. An advantage of our international platform is that we can change our mix of business in response to changes in competitive conditions in the territories in which we operate. Our geographic reach is also sought by multinational ceding companies since our offices, except for Bermuda, provide local reinsurance license capabilities which benefit our clients in dealing with country regulators.

Life Insurance (7 percent of 2020 Consolidated NPE)

Overview

The Life Insurance segment comprises Chubb's international life operations (Chubb Life), Chubb Tempest Life Re (Chubb Life Re), and the North American supplemental A&H and life business of Combined Insurance.

Products and Distribution

Chubb Life provides individual life and group benefit insurance primarily in Asia, including Hong Kong, Indonesia, South Korea, Taiwan, Thailand, Vietnam, and Myanmar; throughout Latin America; selectively in Europe; Egypt; and in China through our direct and indirect investments in Huatai Group and Huatai Life Insurance Co., Ltd. (Huatai Life). Chubb Life offers a broad portfolio of protection and savings products including whole life, endowment plans, individual term life, group term life, medical and health, personal accident, credit life, universal life, Group Employee benefits, unit linked contracts, and credit protection insurance for automobile, motorcycle and home loans. The policies written by Chubb Life generally provide funds to beneficiaries of insureds after death and/or protection and/or savings benefits while the contract owner is living. Chubb Life sells to consumers through a variety of distribution channels including captive and independent agencies, bancassurance, worksite marketing, retailers, brokers, telemarketing, mobilassurance, and direct to consumer marketing. We continue to expand Chubb Life with a focus on opportunities in developing markets that we believe will result in strong and sustainable operating profits as well as a favorable return on capital commitments over time. Our dedicated captive agency distribution channel, whereby agents sell Chubb Life products exclusively, enables us to maintain direct contact with the individual consumer, promote quality sales practices, and exercise greater control over the future of the business. We have developed a substantial sales force of agents principally located in our Asia-Pacific countries. As of December 31, 2020, Chubb had a 57.5 percent direct and indirect ownership interest in Huatai Life, comprising a 20 percent direct ownership interest as well as a 37.5 percent indirect ownership interest through Huatai Group, the parent company of Huatai Life. Huatai Life commenced operations in 2005 and has since grown to become one of the larger life insurance foreign joint ventures in China. Huatai Life offers a broad portfolio of insurance products including whole life, universal life, medical and health, personal accident and disability. These products are marketed through a variety of distribution channels including approximately 454 licensed sales locations in 20 Chinese provinces. Chubb is in the process of increasing its ownership interest in Huatai Group. We also have an indirect investment in Huatai Asset Management, a third-party investment management firm, through our direct ownership in Huatai Group.

Chubb Life Re's core business is a Bermuda-based operation which provides reinsurance to primary life insurers, focusing on guarantees included in certain variable annuity products and also on more traditional mortality reinsurance protection. Chubb Life Re's U.S.-based traditional life reinsurance operation was discontinued for new business in January 2010. Since 2007, Chubb Life Re has not quoted on new opportunities in the variable annuity reinsurance marketplace and our focus has been on managing the current portfolio of risk, both in the aggregate and on a contract basis. This business is managed with a long-term perspective and short-term net income volatility is expected.

Combined Insurance distributes specialty supplemental A&H and life insurance products targeted to middle income consumers and businesses in the U.S. and Canada. Combined Insurance's substantial North American sales force distributes a wide range of supplemental accident and sickness insurance products, including personal accident, short-term disability, critical illness, Medicare supplement products, and hospital confinement/recovery. Most of these products are primarily fixed-indemnity benefit obligations and are not directly subject to escalating medical cost inflation.

Competitive Environment

Chubb Life's competition differs by location but generally includes multinational insurers, and in some locations, local insurers, joint ventures, or state-owned insurers. Chubb's financial strength and reputation as an entrepreneurial organization with a global presence gives Chubb Life a strong base from which to compete. While Chubb Life Re is not currently quoting on new opportunities in the variable annuity reinsurance marketplace, we continue to monitor developments in this market. Combined Insurance competes for A&H business in the U.S. against numerous A&H and life insurance companies across various industry segments.

Corporate

Corporate results primarily include results of all run-off asbestos and environmental (A&E) exposures, the results of our run-off Brandywine business, the results of Westchester specialty operations for 1996 and prior years, certain other run-off exposures, and income and expenses not attributable to reportable segments and the results of our non-insurance companies. The run-off operations do not actively sell insurance products, but are responsible for the management of existing policies and settlement of related claims.

Our exposure to A&E claims principally arises out of liabilities acquired when we purchased Westchester Specialty in 1998, CIGNA's P&C business in 1999, and The Chubb Corporation in 2016. The A&E liabilities principally relate to claims arising from bodily-injury claims related to asbestos products and remediation costs associated with hazardous waste sites.

Underwriting

Chubb is an underwriting company and we strive to emphasize quality of underwriting rather than volume of business or market share. Our underwriting strategy is to manage risk by employing consistent, disciplined pricing and risk selection. This, coupled with writing a number of less cyclical product lines, has helped us develop flexibility and stability of our business, and has allowed us to maintain a profitable book of business throughout market cycles. Clearly defined underwriting authorities, standards, and guidelines coupled with a strong underwriting audit function are in place in each of our local operations and global profit centers. Global product boards ensure consistency of approach and the establishment of best practices throughout the world. Our priority is to help ensure adherence to criteria for risk selection by maintaining high levels of experience and expertise in our underwriting staff. In addition, we employ a business review structure that helps ensure control of risk quality and appropriate use of policy limits and terms and conditions. Underwriting discipline is at the heart of our operating philosophy.

Actuaries in each region work closely with the underwriting teams to provide additional expertise in the underwriting process. We use internal and external data together with sophisticated analytical, catastrophe loss and risk modeling techniques to ensure an appropriate understanding of risk, including diversification and correlation effects, across different product lines and territories. We recognize that climate changes and weather patterns are integral to our underwriting process and we continually adjust our process to address these changes. This is intended to help ensure that exposures are priced appropriately and resulting losses are contained within our risk tolerance and appetite for individual product lines, businesses, and Chubb as a whole. Our use of such tools and data also reflects an understanding of their inherent limitations and uncertainties.

We also purchase protection from third parties, including, but not limited to, reinsurance as a tool to diversify risk and limit the net loss potential of catastrophes and large or unusually hazardous risks. For additional information refer to "Risk Factors" under Item 1A, "Reinsurance Protection", below, "Catastrophe Management" and "Natural Catastrophe Property Reinsurance Program", under Item 7, and Note 5 to the Consolidated Financial Statements, under Item 8.

Reinsurance Protection

As part of our risk management strategy, we purchase reinsurance protection to mitigate our exposure to losses, including certain catastrophes, to a level consistent with our risk appetite. Although reinsurance agreements contractually obligate our reinsurers to reimburse us for an agreed-upon portion of our gross paid losses, reinsurance does not discharge our primary liability to our insureds and, thus, we ultimately remain liable for the gross direct losses. In certain countries, reinsurer selection is limited by local laws or regulations. In most countries there is more freedom of choice, and the counterparty is selected based upon its financial strength, claims settlement record, management, line of business expertise, and its price for assuming the risk transferred. In support of this process, we maintain a Chubb authorized reinsurer list that stratifies these authorized reinsurers by classes of business and acceptable limits. This list is maintained by our Reinsurance Security Committee (RSC), a committee comprising senior management personnel and a dedicated reinsurer security team. Changes to the list are authorized by the RSC and recommended to the Chair of the Risk and Underwriting Committee. The reinsurers on the authorized list and potential new markets are regularly reviewed and the list may be modified following these reviews. In addition to the authorized list, there is a formal exception process that allows authorized reinsurance buyers to use reinsurers already on the authorized list for higher limits or different lines of business, for example, or other reinsurers not on the authorized list if their use is supported by compelling business reasons for a particular reinsurance program.

A separate policy and process exists for captive reinsurance companies. Generally, these reinsurance companies are established by our clients or our clients have an interest in them. It is generally our policy to obtain collateral equal to the expected losses that may be ceded to the captive. Where appropriate, exceptions to the collateral requirement are granted but only after senior management review. Specific collateral guidelines and an exception process are in place for the North America Commercial P&C Insurance, North America Personal P&C Insurance, and Overseas General Insurance segments, all of which have credit management units evaluating the captive's credit quality and that of their parent company. The credit management units, working with actuaries, determine reasonable exposure estimates (collateral calculations), ensure receipt of collateral in an acceptable form, and coordinate collateral adjustments as and when needed. Financial reviews and expected loss evaluations are performed annually for active captive accounts and as needed for run-off exposures. In addition to collateral, parental guarantees are often used to enhance the credit quality of the captive.

In general, we seek to place our reinsurance with highly rated companies with which we have a strong trading relationship. For additional information refer to "Catastrophe Management" and "Natural Catastrophe Property Reinsurance Program" under Item 7, and Note 5 to the Consolidated Financial Statements, under Item 8.

Unpaid Losses and Loss Expenses

We establish reserves for unpaid losses and loss expenses, which are estimates of future payments on reported and unreported claims for losses and related expenses, with respect to insured events that have occurred. These reserves are recorded in Unpaid losses and loss expenses in the Consolidated balance sheets. The process of establishing loss and loss expense reserves for P&C claims can be complex and is subject to considerable uncertainty as it requires the use of informed estimates and judgments based on circumstances known at the date of accrual. These estimates and judgments are based on numerous factors, and may be revised as additional experience and other data become available and are reviewed, as new or improved methodologies are developed, or as laws change. Internal actuaries regularly analyze the levels of loss and loss expense reserves, taking into consideration factors that may impact the ultimate settlement value of the unpaid losses and loss expenses. These analyses could result in future changes in the estimates of loss and loss expense reserves or reinsurance recoverables and any such changes would be reflected in our results of operations in the period in which the estimates are changed. Losses and loss expenses are charged to income as incurred. The reserve for unpaid losses and loss expenses represents the estimated ultimate losses and loss expenses less paid losses and loss expenses, and comprises case reserves and incurred but not reported (IBNR) reserves. 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. In connection with such structured settlements and certain reserves for unsettled claims, we carried net discounted reserves of $68 million at December 31, 2020.

For each product line, management, after consultation with internal actuaries, develops a "best estimate" of the ultimate settlement value of the unpaid losses and loss expenses that it believes provides a reasonable estimate of the required reserve. We evaluate our estimates of reserves quarterly in light of developing information. While we are unable at this time to determine

whether additional reserves may be necessary in the future, we believe that our reserves for unpaid losses and loss expenses are adequate at December 31, 2020. Future additions to reserves, if needed, could have a material adverse effect on our financial condition, results of operations, and cash flows. For additional information refer to "Critical Accounting Estimates – Unpaid losses and loss expenses", under Item 7, and Note 7 to the Consolidated Financial Statements, under Item 8.

Investments

Our objective is to maximize investment income and total return while ensuring an appropriate level of liquidity, investment quality, and diversification. As such, Chubb's investment portfolio is invested primarily in investment-grade fixed-income securities as measured by the major rating agencies. We do not allow leverage in our investment portfolio. The critical aspects of the investment process are controlled by Chubb Asset Management, an indirect wholly-owned subsidiary of Chubb. These aspects include asset allocation, portfolio and guideline design, risk management, and oversight of external asset managers. In this regard, Chubb Asset Management:

- conducts formal asset allocation modeling for each of the Chubb subsidiaries, providing formal recommendations for the portfolio's structure;
- establishes recommended investment guidelines that are appropriate to the prescribed asset allocation targets;
- provides the analysis, evaluation, and selection of our external investment advisors;
- establishes and develops investment-related analytics to enhance portfolio engineering and risk control;
- monitors and aggregates the correlated risk of the overall investment portfolio; and
- provides governance over the investment process for each of our operating companies to ensure consistency of approach and adherence to investment guidelines.

Under our guidance and direction, external asset managers conduct security and sector selection and transaction execution. Use of multiple managers benefits Chubb in several ways – it provides us with operational and cost efficiencies, diversity of styles and approaches, innovations in investment research and credit and risk management, all of which enhance the risk adjusted returns of our portfolios.

Chubb Asset Management determines the investment portfolio's allowable, targeted asset allocation and ranges for each of the segments. These asset allocation targets are derived from sophisticated asset and liability modeling that measures correlated histories of returns and volatility of returns. Allowable investment classes are further refined through analysis of our operating environment including expected volatility of cash flows, potential impact on our capital position, and regulatory and rating agency considerations.

The Board has established a Risk & Finance Committee which helps execute the Board's supervisory responsibilities pertaining to enterprise risk management including investment risk. Under the overall supervision of the Risk & Finance Committee, Chubb's governance over investment management is rigorous and ongoing. Among its responsibilities, the Risk & Finance Committee of the Board:

- reviews and approves asset allocation targets and investment policy to ensure that it is consistent with our overall goals, strategies, and objectives;
- reviews and approves investment guidelines to ensure that appropriate levels of portfolio liquidity, credit quality, diversification, and volatility are maintained; and
- systematically reviews the portfolio's exposures including any potential violations of investment guidelines.

We have long-standing global credit limits for our entire portfolio across the organization and for individual obligors. 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.

Within the guidelines and asset allocation parameters established by the Risk & Finance Committee, individual investment committees of the segments determine tactical asset allocation. Additionally, these committees review all investment-related activity that affects their operating company, including the selection of outside investment advisors, proposed asset allocation changes, and the systematic review of investment guidelines.

For additional information regarding the investment portfolio, including breakdowns of the sector and maturity distributions, refer to Note 3 to the Consolidated Financial Statements under Item 8.

Regulation
Our insurance and reinsurance subsidiaries conduct business globally, including in all 50 states of the United States, the District of Columbia and all U.S. Territories. Our business is subject to varying degrees of regulation and supervision in each of the jurisdictions in which our insurance and reinsurance subsidiaries are domiciled and on a group basis. The laws and regulations of the jurisdictions in which our insurance and reinsurance subsidiaries are domiciled require among other things that these subsidiaries maintain minimum levels of statutory capital, surplus, and liquidity, meet solvency standards, and submit to periodic examinations of their financial condition. The complex regulatory environments in which Chubb operates are subject to change and are regularly monitored.

Group Supervision
In 2012, the Pennsylvania Insurance Department (Department), in consultation with other insurance regulatory bodies that oversee Chubb's insurance activities, convened the first Chubb Supervisory College (College). The Department, in cooperation with the other supervisory college regulators, published a notice of its determination that it is the appropriate group-wide supervisor for Chubb.

Since 2012, the College has convened bi-annually primarily in-person, with the most recent College convened in September 2020, albeit virtually. In July 2017, the College convened its first interim regulators-only College teleconference, with the most recent teleconference held in September 2019. During these meetings, the College reviewed extensive information about Chubb, without material adverse comment. Given the virtual nature of the September 2020 College, another in-person College is tentatively scheduled for September 2021 in Philadelphia, Pennsylvania.

The following is an overview of regulations for our operations in Switzerland, the U.S., Bermuda, and other international locations.

Swiss Operations
The Swiss Financial Market Supervisory Authority (FINMA) has the discretion to supervise Chubb on a group-wide basis. However, FINMA acknowledges the Department's assumption of group supervision over us.

In 2008, we formed Chubb Insurance (Switzerland) Limited which offers property and casualty insurance to Swiss companies, A&H insurance for individuals of Swiss Corporations as well as reinsurance predominantly in Continental Europe. We have also formed a reinsurance subsidiary named Chubb Reinsurance (Switzerland) Limited, which we operate as primarily a provider of reinsurance to Chubb entities. Both companies are licensed and governed by FINMA.

U.S. Operations
Our U.S. insurance subsidiaries are subject to extensive regulation and supervision by the states in which they do business. The laws of the various states establish departments of insurance with broad authority to regulate, among other things: the standards of solvency that must be met and maintained, the licensing of insurers and their producers, approval of policy forms and rates, the nature of and limitations on investments, restrictions on the size of the risks which may be insured under a single policy, deposits of securities for the benefit of policyholders, requirements for the acceptability of reinsurers, periodic examinations of the affairs of insurance companies, the form and content of reports of financial condition required to be filed, and the adequacy of reserves for unearned premiums, losses, and other exposures.

Our U.S. insurance subsidiaries are required to file detailed annual and quarterly reports with state insurance regulators. In addition, our U.S. insurance subsidiaries' operations and financial records are subject to examination at regular intervals by state regulators.

All states have enacted legislation that regulates insurance holding companies. This legislation provides that each U.S. insurance company in the insurance holding company system (system) is required to register with the insurance department of its state of domicile and furnish information concerning the operations of companies within the system that may materially affect the operations, management, or financial condition of our U.S. insurers. We are required to file an annual enterprise risk report with the Department, identifying the material risks within our system that could pose enterprise risk to our U.S. insurers. All transactions within a system must be fair and equitable. Notice to the insurance departments is required prior to the consummation of transactions affecting the ownership or control of an insurer and of certain material transactions between an insurer and an entity in its system. In addition, certain transactions may not be consummated without the department's prior approval.

We are also required to file annually with the Department a disclosure report that identifies our corporate governance practices and a report reflecting our internal assessment of material risks associated with our current business plan and the sufficiency of our capital resources to support those risks.

Statutory surplus is an important measure used by the regulators and rating agencies to assess our U.S. insurance subsidiaries' ability to support business operations and provide dividend capacity. Our U.S. insurance subsidiaries are subject to various state statutory and regulatory restrictions that limit the amount of dividends that may be paid without prior approval from regulatory authorities. These restrictions differ by state, but are generally based on calculations incorporating statutory surplus, statutory net income, and/or investment income.

The National Association of Insurance Commissioners (NAIC) has a risk-based capital requirement for P&C insurance companies. This risk-based capital formula is used by many state regulatory authorities to identify insurance companies that may be undercapitalized and which merit further regulatory attention. These requirements are designed to monitor capital adequacy using a formula that prescribes a series of risk measurements to determine a minimum capital amount for an insurance company, based on the profile of the individual company. The ratio of a company's actual policyholder surplus to its minimum capital requirement will determine whether any state regulatory action is required. There are progressive risk-based capital failure levels that trigger more stringent regulatory action. If an insurer's policyholders' surplus falls below the Mandatory Control Level (70 percent of the Authorized Control Level, as defined by the NAIC), the relevant insurance commissioner is required to place the insurer under regulatory control.

However, an insurance regulator may allow a P&C company operating below the Mandatory Control Level that is writing no business and is running off its existing business to continue its run-off. Brandywine is running off its liabilities consistent with the terms of an order issued by the Insurance Commissioner of Pennsylvania. This includes periodic reporting obligations to the Department.

Government intervention continued in the insurance and reinsurance markets in relation to terrorism coverage in the U.S. (and through industry initiatives in other countries). The U.S. Terrorism Risk Insurance Act (TRIA), which was enacted in 2002 to ensure the availability of insurance coverage for certain types of terrorist acts in the U.S., was extended in December 2019 through December 31, 2027, and applies to certain of our operations.

From time to time, Chubb and its subsidiaries and affiliates receive inquiries from state agencies and attorneys general, with which we generally comply, seeking information concerning business practices, such as underwriting and non-traditional or loss mitigation insurance products. Moreover, many recent factors, such as consequences of and reactions to industry and economic conditions and focus on domestic issues, have contributed to the potential for change in the legal and regulatory framework applicable to Chubb's U.S. operations and businesses. We cannot assure that changes in laws or investigative or enforcement activities in the various states in the U.S. will not have a material adverse impact on our financial condition, results of operations, or business practices.

We are subject to numerous U.S. federal and state laws governing the protection of personal and confidential information of our clients or employees. These laws and regulations are increasing in complexity, and the requirements are extensive and detailed. Numerous states require us to certify our compliance with their data protection laws.

We are subject to the New York Department of Financial Services' Cybersecurity Regulation (the NYDFS Cybersecurity Regulation) which mandates detailed cybersecurity standards for all institutions, including insurance entities, authorized by the NYDFS to operate in New York. Among the requirements are the maintenance of a cybersecurity program with governance controls, risk-based minimum data security standards for technology systems, cyber breach preparedness and response requirements, including reporting obligations, vendor oversight, training, and program record keeping and certification obligations. Because our North America systems are integrated, our companies domiciled in other states may also be impacted by this requirement.

Additionally, the NAIC adopted an Insurance Data Security Model Law, which requires licensed insurance entities to comply with detailed information security requirements. The NAIC model law is similar in many respects to the NYDFS Cybersecurity Regulation.

Bermuda Operations

The Insurance Act 1978 of Bermuda and related regulations, as amended (the Insurance Act), regulates the insurance business of our Bermuda domiciled (re)insurance subsidiaries (Bermuda domiciled subsidiaries) and provides that no person may carry on any insurance business in or from within Bermuda unless registered as an insurer by the Bermuda Monetary Authority (BMA). The Insurance Act imposes solvency and liquidity standards and auditing and reporting requirements on Bermuda insurance companies and grants the BMA powers to supervise, investigate, and intervene in the affairs of insurance companies.

Bermuda domiciled subsidiaries must prepare and file with the BMA, audited annual statutory financial statements and audited annual financial statements prepared in accordance with accounting principles generally accepted in the U.S. (GAAP), International Financial Reporting Standards (IFRS), or any such other generally accepted accounting principles as the BMA may recognize. The GAAP audited financial statements are made public by the BMA. The Insurance Act prescribes rules for the preparation and content of the statutory financial statements that require Bermuda domiciled subsidiaries to give detailed information and analyses regarding premiums, claims, reinsurance, and investments. In addition, each year, the Bermuda domiciled insurers are required to file with the BMA a capital and solvency return along with an annual statutory financial return. The prescribed form of capital and solvency return is comprised of the BMA's risk based capital model, termed the Bermuda Solvency Capital Requirement (BSCR) or an approved internal capital model in lieu thereof; a statutory economic balance sheet; the approved actuary's opinion; and several prescribed schedules. The BSCR is a tool to assist the BMA both in measuring risk and in determining appropriate levels of capitalization. The BSCR employs a standard mathematical model that correlates the risk underwritten by Bermuda insurers to their capital. The BSCR framework applies a standard measurement format to the risk associated with an insurer's assets, liabilities, and premiums, including a formula to take into account catastrophe risk exposure.

The BMA established risk-based regulatory capital adequacy and solvency margin requirements for Bermuda insurers that mandate that a Bermuda domiciled subsidiary's Enhanced Capital Requirement (ECR) be calculated by either (a) BSCR, or (b) an internal capital model which the BMA has approved for use for this purpose. The Bermuda domiciled subsidiaries use the BSCR in calculating their solvency requirements. Bermuda statutory reporting rules include an Economic Balance Sheet (EBS) framework. The EBS framework is embedded as part of the BSCR and forms the basis of our ECR.

In order to minimize the risk of a shortfall in capital arising from an unexpected adverse deviation and in moving towards the implementation of a risk based capital approach, the BMA has established a threshold capital level, (termed the Target Capital Level (TCL)), set at 120 percent of ECR, that serves as an early warning tool for the BMA. Failure to maintain statutory capital at least equal to the TCL would likely result in increased BMA regulatory oversight.

Under the BMA's powers to set standards on public disclosure under the Insurance Act, the Bermuda domiciled subsidiaries are required to prepare and publish a Financial Condition Report (FCR). The FCR provides details of measures governing the business operations, corporate governance framework, solvency and financial performance. The FCR must be filed with the BMA and requires Bermuda insurance companies to make the FCR publicly available.

Under the Insurance Act, Chubb's Bermuda domiciled subsidiaries are prohibited from declaring or paying any dividends of more than 25 percent of total statutory capital and surplus, as shown in its previous financial year statutory balance sheet, unless at least seven days before payment of the dividends, it files with the BMA an affidavit signed by at least two directors of the relevant Chubb Bermuda domiciled subsidiary (one of whom must be a director resident in Bermuda) and by the relevant Chubb Bermuda domiciled subsidiary's principal representative, that it will continue to meet its required solvency margins. Furthermore, Bermuda domiciled subsidiaries may only declare and pay a dividend from retained earnings and a dividend or distribution from contributed surplus if it has no reasonable grounds for believing that it is, or would after the payment be, unable to pay its liabilities as they become due, or if the realizable value of its assets would be less than the aggregate of its liabilities.

In addition, Chubb's Bermuda domiciled subsidiaries must obtain the BMA's prior approval before reducing total statutory capital, as shown in its previous financial year's financial statements, by 15 percent or more.

Other International Operations
The extent of insurance regulation varies significantly among the countries in which non-U.S. Chubb operations conduct business. While each country imposes licensing, solvency, auditing, and financial reporting requirements, the type and extent of the requirements differ substantially. For example:

- in some countries, insurers are required to prepare and file monthly and/or quarterly financial reports, and in others, only annual reports;
- some regulators require intermediaries to be involved in the sale of insurance products, whereas other regulators permit direct sales contact between the insurer and the customer;
- the extent of restrictions imposed upon an insurer's use of local and offshore reinsurance vary;
- policy form filing and rate regulation vary by country;
- the frequency of contact and periodic on-site examinations by insurance authorities differ by country; and
- regulatory requirements relating to insurer dividend policies vary by country.

Significant variations can also be found in the size, structure, and resources of the local regulatory departments that oversee insurance activities. Certain regulators prefer close relationships with all subject insurers and others operate a risk-based approach.

Chubb operates in some countries through subsidiaries and in some countries through branches of subsidiaries. Local capital requirements applicable to a subsidiary generally include its branches. Certain Chubb companies are jointly owned with local companies to comply with legal requirements for local ownership. Other legal requirements include discretionary licensing procedures, compulsory cessions of reinsurance, local retention of funds and records, data privacy and protection program requirements such as the General Data Protection Regulation (GDPR), and foreign exchange controls. Chubb's international companies are also subject to multinational application of certain U.S. laws.

There are various regulatory bodies and initiatives that impact Chubb in multiple international jurisdictions and the potential for significant impact on Chubb could be heightened as a result of recent industry and economic developments.

Enterprise Risk Management
As an insurer, Chubb is in the business of profitably managing risk for its customers. Since risk management must permeate an organization conducting a global insurance business, we have an established Enterprise Risk Management (ERM) framework that is integrated into management of our businesses and is led by Chubb's senior management. As a result, ERM is a part of the day-to-day management of Chubb and its operations.

Our global ERM framework is broadly multi-disciplinary and its strategic objectives include:

- **External Risks**: identify, analyze, quantify, and where possible, mitigate significant external risks that could materially hamper the financial condition of Chubb and/or the achievement of corporate business objectives over the next 36 months;
- **Exposure Accumulations**: identify and quantify the accumulation of exposure to individual counterparties, products or industry sectors, particularly those that materially extend across or correlate between business units or divisions and/or the balance sheet;
- **Risk Modeling**: develop and use various data-sets, analytical tools, metrics and processes (such as economic capital models and advanced analytics, including catastrophe models to quantify natural catastrophe risk for product pricing, risk management, capital allocation and to simulate and estimate hurricane losses) that help business and corporate leaders make informed underwriting, portfolio management and risk management decisions within a consistent risk/reward framework;
- ***Governance***:
    - establish and coordinate risk guidelines that reflect the corporate appetite for risk;
    - monitor exposure accumulations relative to established guidelines; and
    - ensure effective internal risk management communication up to management and the Board, (including our Risk & Finance Committee and our Nominating & Governance Committee), down to the various business units and legal entities, and across the firm; and
- **Disclosure**: develop protocols and processes for risk-related disclosure internally as well as externally to rating agencies, regulators, shareholders and analysts.

Chubb Group's Risk and Underwriting Committee (RUC) reports to and assists the Chief Executive Officer in the oversight and review of the ERM framework which covers the processes and guidelines used to manage the entire landscape of insurance, financial, strategic, and operational risks. The RUC is chaired by Chubb Group's Chief Risk Officer. The RUC meets at least monthly, and is comprised of Chubb Group's most senior executives which, in addition to the Chair, includes the Chief Executive Officer, the President and Chief Operating Officer, Chief Financial Officer, Chief Investment Officer, Chief Actuary, Chief Claims Officer, General Counsel, President – North America Commercial and Personal Insurance, President – North America Major Accounts and Specialty Insurance, President – Overseas General Insurance, and Chief Underwriting Officer.

The RUC is assisted in its activities by Chubb's Enterprise Risk Unit (ERU) and Product Boards. The ERU is responsible for the collation and analysis of risk insight in two key areas. The first relates to external information that provides insight to the RUC on existing or emerging risks that might significantly impact Chubb's key objectives while the second involves internal risk aggregations arising from Chubb's business writings and other activities such as investments and operations. The ERU is independent of the operating units and reports to our Chief Risk Officer. The Product Boards exist to provide oversight for products that we offer globally. A Product Board currently exists for each of Chubb's major product areas. Each Product Board is responsible for ensuring consistency in underwriting and pricing standards, identification of emerging issues, and guidelines for relevant accumulations.

Chubb's Chief Risk Officer also reports to the Board's Risk & Finance Committee, which helps execute the Board's supervisory responsibilities pertaining to ERM. The role of the Risk & Finance Committee includes evaluation of the integrity and effectiveness of our ERM procedures, systems, and information; governance on major policy decisions pertaining to risk aggregation and minimization; and assessment of our major decisions and preparedness levels pertaining to perceived material risks. The Audit Committee meets with the Risk & Finance Committee at least annually in order to exercise its duties under New York Stock Exchange Rules.

Others within the overall ERM structure contribute toward accomplishing Chubb's ERM objectives, including regional management, Corporate Underwriting, Internal Audit, Compliance, external consultants, and managers of our internal control processes and procedures.

Tax Matters

Refer to "Risk Factors", under Item 1A and Note 1 o) and Note 8 to the Consolidated Financial Statements, under Item 8.

Information about our Executive Officers

Name	Age	Position
Evan G. Greenberg	66	Chairman, Chief Executive Officer, and Director
John W. Keogh	56	President and Chief Operating Officer
Philip V. Bancroft	61	Executive Vice President and Chief Financial Officer
John J. Lupica	55	Vice Chairman; President, North America Insurance
Joseph F. Wayland	63	Executive Vice President and General Counsel
Sean Ringsted	58	Executive Vice President, Chief Digital Officer, and Chief Risk Officer
Timothy A. Boroughs	71	Executive Vice President and Chief Investment Officer
Paul J. Krump	61	Vice Chairman, Global Underwriting and Claims
Juan Luis Ortega	46	Executive Vice President; President, Overseas General Insurance

Evan G. Greenberg has been a director of Chubb Limited since August 2002. Mr. Greenberg was elected Chairman of the Board of Directors in May 2007. Mr. Greenberg was appointed to the position of President and Chief Executive Officer of Chubb Limited in May 2004, and in June 2003, was appointed President and Chief Operating Officer of Chubb Limited. Mr. Greenberg was appointed to the position of Chief Executive Officer of Chubb Overseas General in April 2002. He joined Chubb as Vice Chairman, Chubb Limited, and Chief Executive Officer of Chubb Tempest Re in November 2001. Prior to joining Chubb, Mr. Greenberg was most recently President and Chief Operating Officer of American International Group (AIG), a position he held from 1997 until 2000. Mr. Greenberg was a director of The Coca-Cola Company from February 2011 until October 2016.

John W. Keogh was appointed President of Chubb in December 2020, and has served as Chief Operating Officer since July 2011. Mr. Keogh joined Chubb in 2006 as Chairman, Insurance – Overseas General. Mr. Keogh was appointed Vice Chairman in 2010 and Executive Vice Chairman in 2015. Before joining Chubb, Mr. Keogh held a range of positions with increasing responsibility during a 20-year career with American International Group (AIG), including Senior Vice President, Domestic General Insurance, and President and Chief Executive Officer of National Union Fire Insurance Company of Pittsburgh, an AIG member company. He began his insurance career as an underwriter with AIG in 1986.

Philip V. Bancroft was appointed Chief Financial Officer of Chubb Limited in January 2002. For nearly 20 years, Mr. Bancroft worked for PricewaterhouseCoopers LLP. Prior to joining Chubb, he served as partner-in-charge of the New York Regional Insurance Practice. Mr. Bancroft had been a partner with PricewaterhouseCoopers LLP for ten years. Mr. Bancroft plans to retire on July 1, 2021.

John J. Lupica was appointed President, North America Insurance in September 2020, and has served as Vice Chairman of Chubb Limited and Chubb Group Holdings since November 2013. Prior to his current role, Mr. Lupica served as President, North America Major Accounts and Specialty Insurance since January 2016. Mr. Lupica was appointed Chairman, Insurance - North America, in July 2011. Mr. Lupica had been Chief Operating Officer, Insurance - North America, since 2010 and President of ACE USA since 2006. He also previously served as Division President of U.S. Professional Risk business and U.S. Regional Operations. Mr. Lupica joined Chubb as Executive Vice President of Professional Risk in 2000. Prior to joining Chubb, he served as Senior Vice President for Munich-American Risk Partners, Inc. He also held various management positions at AIG.

Joseph F. Wayland was appointed Executive Vice President of Chubb Limited in January 2016, General Counsel and Secretary of Chubb Limited in July 2013. Mr. Wayland joined Chubb from the law firm of Simpson Thacher & Bartlett LLP, where he was a partner since 1994. From 2010 to 2012, he served in the United States Department of Justice, first as Deputy Assistant Attorney General of the Antitrust Division, and was later appointed as the Acting Assistant Attorney General in charge of that division.

Sean Ringsted was appointed Executive Vice President and Chief Digital Officer in February 2017 and Chief Risk Officer in November 2008. Mr. Ringsted previously served as Chief Actuary of Chubb Limited from November 2008 to January 2017. Mr. Ringsted's previous roles at Chubb also include Chief Actuary for Chubb Group from 2004 to 2008, Executive Vice President and Chief Risk Officer for Chubb Tempest Re from 2002 to 2004, and Senior Vice President and Chief Actuary for Chubb Tempest Re from 1998 to 2002. Prior to joining Chubb, Mr. Ringsted was a consultant at Tillinghast-Towers Perrin.

Timothy A. Boroughs was appointed Executive Vice President and Chief Investment Officer of Chubb Group in June 2000. Prior to joining Chubb, Mr. Boroughs was Director of Fixed Income at Tudor Investment Corporation from 1997 to 2000, and Managing Partner and Director of Global Leveraged Investment Activity at Fischer Francis Trees & Watts from 1976 to 1997.

Paul J. Krump was appointed Vice Chairman, Global Underwriting and Claims in September 2020. Prior to his current role, Mr. Krump served as Executive Vice President, Chubb Group and President North America Commercial and Personal Insurance since January 2016. Before Chubb Limited's January 2016 acquisition of The Chubb Corporation, Mr. Krump was Chief Operating Officer of The Chubb Corporation, responsible for the company's Commercial, Specialty, Personal and Accident & Health insurance lines; Claims; Global Field Operations; Information Technology; Human Resources; Communications; and External Affairs. Mr. Krump joined The Chubb Corporation in 1982 as a commercial underwriting trainee in the Minneapolis office. He held numerous headquarters and field positions in the United States and Europe, including President of Personal Lines and Claims and President of Commercial and Specialty Lines.

Juan Luis Ortega was appointed Executive Vice President, Chubb Group and President, Overseas General Insurance in August 2019. Mr. Ortega previously served as Senior Vice President, Chubb Group and Regional President of Latin America since 2016 and Regional President of Asia Pacific from 2013 to 2016. Mr. Ortega's previous roles at Chubb also include Senior Vice President, Accident & Health, for the Asia Pacific region from 2011 to 2013 and Senior Vice President and Regional Head of Accident & Health for the Latin America region from 2008 to 2010. Mr. Ortega joined Chubb in 1999 and advanced through a series of accident and health and credit insurance management positions in Miami, Puerto Rico and Mexico, before being named Country President of Chile in 2005.

ITEM 1A. Risk Factors

Factors that could have a material impact on our results of operations or financial condition are outlined below. Additional risks not presently known to us or that we currently deem insignificant may also impair our business or results of operations as they become known or as facts and circumstances change. Any of the risks described below could result in a material adverse effect on our results of operations or financial condition.

Insurance

Our results of operations or financial condition could be adversely affected by the occurrence of natural and man-made disasters.

We have substantial exposure to losses resulting from natural disasters, man-made catastrophes such as terrorism or cyber-attack, and other catastrophic events, including pandemics. This could impact a variety of our businesses, including our commercial and personal lines, and life and accident and health (A&H) products. Catastrophes can be caused by various events, including hurricanes, typhoons, earthquakes, hailstorms, droughts, explosions, severe winter weather, fires, war, acts of terrorism, nuclear accidents, political instability, and other natural or man-made disasters, including a global or other wide-impact pandemic or a significant cyber-attack. The incidence and severity of catastrophes are inherently unpredictable and our losses from catastrophes could be substantial. In addition, climate change and resulting changes in global temperatures, weather patterns, and sea levels may both increase the frequency and severity of natural catastrophes and the resulting losses in the future and impact our risk modeling assumptions. We cannot predict the impact that changing climate conditions, if any, may have on our results of operations or our financial condition. Additionally, we cannot predict how legal, regulatory and/or social responses to concerns around global climate change may impact our business. The occurrence of claims from catastrophic events could result in substantial volatility in our results of operations or financial condition for any fiscal quarter or year. Although we attempt to manage our exposure to such events through the use of underwriting controls, risk models, and the purchase of third-party reinsurance, catastrophic events are inherently unpredictable and the actual nature of such events when they occur could be more frequent or severe than contemplated in our pricing and risk management expectations. As a result, the occurrence of one or more catastrophic events could have an adverse effect on our results of operations and financial condition.

COVID-19 pandemic, the effects of global actions taken to contain its spread, and its economic and societal impact could adversely impact our businesses, invested assets, financial condition, and results of operations.

COVID-19 pandemic (the "virus" or the "pandemic") is causing significant disruption to public health, the global economy, financial markets, and commercial, social and community activity generally. The pandemic has had a significant effect on our company's business operations and, depending on the course of the pandemic and government responses, may have a significant effect on current and future financial results. We may experience higher levels of loss and, claims activity in certain lines of business in excess of losses we have already recognized, and our premiums could also be adversely affected by any further suppression of global commercial activity that results in a reduction in insurable assets and other exposure. Financial conditions resulting from the pandemic may also have a negative effect on the value and quality of our portfolio of invested assets, thereby adversely affecting our investment returns and increasing our credit and related risk. Certain lines of our business, such as our variable annuity life reinsurance business, may require additional forms of collateral in the event of a decline in the securities and benchmarks to which those repayment mechanisms are linked.

To protect our employees and in response to the global and regional restrictions on interpersonal contact and travel because of the pandemic, much of our work force may be working remotely, either for extended periods or intermittently, in response to changing health and regulatory conditions, placing increased demands on our IT systems. While we have continued to conduct our business effectively throughout the pandemic, there is no assurance that our ability to continue to function in this environment will not be adversely affected by an extended disruption in the telecommunications and internet infrastructures that support our remote work capability.

If actual claims exceed our loss reserves, our financial results could be adversely affected.

Our results of operations and financial condition depend upon our ability to accurately assess the potential losses associated with the risks that we insure and reinsure. We establish reserves for unpaid losses and loss expenses, which are estimates of future payments of reported and unreported claims for losses and related expenses, with respect to insured events that have occurred at or prior to the balance sheet date. The process of establishing reserves can be highly complex and is subject to considerable variability as it requires the use of informed estimates and judgments.

Actuarial staff in each of our segments regularly evaluates the levels of loss reserves. Any such evaluation could result in future changes in estimates of losses or reinsurance recoverables and would be reflected in our results of operations in the period in which the estimates are changed. Losses and loss expenses are charged to income as incurred. During the loss settlement period, which can be many years in duration for some of our lines of business, additional facts regarding individual claims and trends often will become known which may result in a change in overall reserves. In addition, application of statistical and actuarial methods may require the adjustment of overall reserves upward or downward from time to time.

Included in our loss reserves are liabilities for latent claims such as asbestos and environmental (A&E), which are principally related to claims arising from remediation costs associated with hazardous waste sites and bodily-injury claims related to exposure to asbestos products and environmental hazards. At December 31, 2020, gross A&E liabilities represented approximately 2.8 percent of our gross loss reserves. The estimation of these liabilities is subject to many complex variables including: the current legal environment; specific settlements that may be used as precedents to settle future claims; assumptions regarding trends with respect to claim severity and the frequency of higher severity claims; assumptions regarding the ability to allocate liability among defendants (including bankruptcy trusts) and other insurers; the ability of a claimant to bring a claim in a state in which it has no residency or exposure; the ability of a policyholder to claim the right to non-products coverage; whether high-level excess policies have the potential to be accessed given the policyholder's claim trends and liability situation; payments to unimpaired claimants; and the potential liability of peripheral defendants. Accordingly, the ultimate settlement of losses, arising from either latent or non-latent causes, may be significantly greater or less than the loss and loss expense reserves held at the balance sheet date. In addition, the amount and timing of the settlement of our P&C liabilities are uncertain and our actual payments could be higher than contemplated in our loss reserves owing to the impact of insurance, judicial decisions, and/or social inflation. If our loss reserves are determined to be inadequate, we may be required to increase loss reserves at the time of the determination and our net income and capital may be reduced.

The effects of emerging claim and coverage issues on our business are uncertain.
As industry practices and legislative, regulatory, judicial, social, financial, technological and other environmental conditions change, unexpected and unintended issues related to claims and coverage may emerge. These issues may adversely affect our business by either extending coverage beyond our underwriting intent or by increasing the frequency and severity of claims. In some instances, these changes may not become apparent until after we have issued insurance or reinsurance contracts that are affected by the changes. For example, recently enacted "reviver" legislation in certain states does allow civil claims relating to molestation and abuse to be asserted against policyholders that would otherwise be barred by statutes of limitations. As a result, the full extent of liability under our insurance or reinsurance contracts may not be known for many years after issuance.

The failure of any of the loss limitation methods we use could have an adverse effect on our results of operations and financial condition.
We seek to manage our loss exposure by maintaining a disciplined underwriting process throughout our insurance operations. We also look to limit our loss exposure by writing a number of our insurance and reinsurance contracts on an excess of loss basis. Excess of loss insurance and reinsurance indemnifies the insured against losses in excess of a specified amount. In addition, we limit program size for each client and purchase third-party reinsurance for our own account. In the case of our assumed proportional reinsurance treaties, we seek per occurrence limitations or loss and loss expense ratio caps to limit the impact of losses ceded by the client. In proportional reinsurance, the reinsurer shares a proportional part of the premiums and losses of the reinsured. We also seek to limit our loss exposure by geographic diversification. Geographic zone limitations involve significant underwriting judgments, including the determination of the area of the zones and the inclusion of a particular policy within a particular zone's limits.

However, there are inherent limitations in all of these tactics and no assurance can be given against the possibility of an event or series of events that could result in loss levels that could have an adverse effect on our financial condition or results of operations. It is also possible that losses could manifest themselves in ways that we do not anticipate and that our risk mitigation strategies are not designed to address. Additionally, various provisions of our policies, such as limitations or exclusions from coverage or choice of forum negotiated to limit our risks, may not be enforceable in the manner we intend. As a result, one or more natural catastrophes and/or terrorism or other events could result in claims that substantially exceed our expectations, which could have an adverse effect on our results of operations and financial condition.

We may be unable to purchase reinsurance, and/or if we successfully purchase reinsurance, we are subject to the possibility of non-payment.
We purchase protection from third parties including, but not limited to, reinsurance to protect against catastrophes and other sources of volatility, to increase the amount of protection we can provide our clients, and as part of our overall risk management strategy. Our reinsurance business also purchases retrocessional protection which allows a reinsurer to cede to another company

all or part of the reinsurance originally assumed by the reinsurer. A reinsurer's or retrocessionaire's insolvency or inability or unwillingness to make timely payments under the terms of its reinsurance agreement with us could have an adverse effect on us because we remain liable to the insured. From time to time, market conditions have limited, and in some cases have prevented, insurers and reinsurers from obtaining the types and amounts of reinsurance or retrocessional reinsurance that they consider adequate for their business needs.

There is no guarantee our desired amounts of reinsurance or retrocessional reinsurance will be available in the marketplace in the future. In addition to capacity risk, the remaining capacity may not be on terms we deem appropriate or acceptable or with companies with whom we want to do business. Finally, we face some degree of counterparty risk whenever we purchase reinsurance or retrocessional reinsurance. Consequently, the insolvency of these counterparties, or the inability, or unwillingness of any of our present or future reinsurers to make timely payments to us under the terms of our reinsurance or retrocessional agreements could have an adverse effect on us. At December 31, 2020, we had $15.8 billion of reinsurance recoverables, net of reserves for uncollectible recoverables.

Certain active Chubb companies are primarily liable for A&E and other exposures they have reinsured to our inactive run-off company Century Indemnity Company (Century). At December 31, 2020, the aggregate reinsurance balances ceded by our active subsidiaries to Century were approximately $1.6 billion. Should Century's loss reserves experience adverse development in the future and should Century be placed into rehabilitation or liquidation, the reinsurance recoverables due from Century to its affiliates would be payable only after the payment in full of third-party expenses and liabilities, including administrative expenses and direct policy liabilities. Thus, the intercompany reinsurance recoverables would be at risk to the extent of the shortage of assets remaining to pay these recoverables. While we believe the intercompany reinsurance recoverables from Century are not impaired at this time, we cannot assure that adverse development with respect to Century's loss reserves, if manifested, will not result in Century's insolvency, which could result in our recognizing a loss to the extent of any uncollectible reinsurance from Century. This could have an adverse effect on our results of operations and financial condition.

Our net income may be volatile because certain products sold by our Life Insurance business expose us to reserve and fair value liability changes that are directly affected by market and other factors and assumptions.
Our pricing, establishment of reserves for future policy benefits and valuation of life insurance and annuity products, including reinsurance programs, are based upon various assumptions, including but not limited to equity market changes, interest rates, mortality rates, morbidity rates, and policyholder behavior. The process of establishing reserves for future policy benefits relies on our ability to accurately estimate insured events that have not yet occurred but that are expected to occur in future periods. Significant deviations in actual experience from assumptions used for pricing and for reserves for future policy benefits could have an adverse effect on the profitability of our products and our business.

Under reinsurance programs covering variable annuity guarantees, we assumed the risk of guaranteed minimum death benefits (GMDB) and guaranteed living benefits (GLB), principally guaranteed minimum income benefits (GMIB), associated with variable annuity contracts. We ceased writing this business in 2007. Our net income is directly impacted by the change in the reserve calculated in connection with the reinsurance of GMDB liability and by the change in the fair value of the GLB liability. Reported liabilities for both GMDB and GLB reinsurance are determined using internal valuation models which require considerable judgment and are subject to significant uncertainty. Additionally, the fair value of GLB liabilities is impacted by market conditions. Refer to the "Critical Accounting Estimates – Guaranteed living benefits (GLB) derivatives" under Item 7 and "Quantitative and Qualitative Disclosures about Market Risk – Reinsurance of GMDB and GLB guarantees" under Item 7A for additional information on the assumptions used in this program. We view our variable annuity reinsurance business as having a similar risk profile to that of catastrophe reinsurance, with the probability of long-term economic loss relatively small at the time of pricing. Adverse changes in market factors and policyholder behavior will have an impact on both Life Insurance underwriting income and consolidated net income.

Payment of obligations under surety bonds could have an adverse effect on our results of operations.
The surety business tends to be characterized by infrequent but potentially high severity losses. The majority of our surety obligations are intended to be performance-based guarantees. When losses occur, they may be mitigated, at times, by recovery rights to the customer's assets, contract payments, and collateral and bankruptcy recoveries. We have substantial commercial and construction surety exposure for current and prior customers. In that regard, we have exposures related to surety bonds issued on behalf of companies that have experienced or may experience deterioration in creditworthiness. If the financial condition of these companies were adversely affected by the economy or otherwise, we may experience an increase in filed claims and may incur high severity losses, which could have an adverse effect on our results of operations.

Our exposure to various commercial and contractual counterparties, our reliance on brokers, and certain of our policies may subject us to credit risk.
We have exposure to counterparties through a variety of commercial transactions and arrangements, including reinsurance transactions; agreements with banks, hedge funds and other investment vehicles; and derivative transactions, that expose us to credit risk in the event our counterparty fails to perform its obligations. This includes exposure to financial institutions in the form of secured and unsecured debt instruments and equity securities. Moreover, a deposit paid in connection with our agreement to acquire additional shares of Huatai Group exposes us to risk if the transaction is not completed.

In accordance with industry practice, we generally pay amounts owed on claims to brokers who, in turn, remit these amounts to the insured or ceding insurer. Although the law is unsettled and depends upon the facts and circumstances of the particular case, in some jurisdictions, if a broker fails to make such a payment, we might remain liable to the insured or ceding insurer for the deficiency. Conversely, in certain jurisdictions, if a broker does not remit premiums paid for these policies over to us, these premiums might be considered to have been paid and the insured or ceding insurer will no longer be liable to us for those amounts, whether or not we have actually received the premiums from the broker. Consequently, we assume a degree of credit risk associated with a broker with whom we transact business. However, due to the unsettled and fact-specific nature of the law, we are unable to quantify our exposure to this risk. To date, we have not experienced any material losses related to this credit risk.

Under the terms of certain high-deductible policies which we offer, such as workers' compensation and general liability, our customers are responsible to reimburse us for an agreed-upon dollar amount per claim. In nearly all cases we are required under such policies to pay covered claims first, and then seek reimbursement for amounts within the applicable deductible from our customers. This obligation subjects us to credit risk from these customers. While we generally seek to mitigate this risk through collateral agreements and maintain a provision for uncollectible accounts associated with this credit exposure, an increased inability of customers to reimburse us in this context could have an adverse effect on our financial condition and results of operations. In addition, a lack of credit available to our customers could impact our ability to collateralize this risk to our satisfaction, which in turn, could reduce the amount of high-deductible policies we could offer.

Since we depend on a few distribution and bancassurance partners for a large portion of our revenues, loss of business provided by any one of them could adversely affect us.
We market our insurance and reinsurance worldwide primarily through independent insurance agents, insurance and reinsurance brokers, and bancassurance relationships. Accordingly, our business is dependent on the willingness of these agents and brokers to recommend our products to their customers, who may also promote and distribute the products of our competitors. Deterioration in relationships with our agent and broker distribution network or their increased promotion and distribution of our competitors' products could adversely affect our ability to sell our products. Loss of all or a substantial portion of the business provided by one or more of these agents and brokers could have an adverse effect on our business.

Financial

Our investment performance may affect our financial results and our ability to conduct business.
Our investment assets are invested by professional investment management firms under the direction of our management team in accordance with investment guidelines approved by the Risk & Finance Committee of the Board of Directors. Although our investment guidelines stress diversification of risks and conservation of principal and liquidity, our investments are subject to market risks and risks inherent in individual securities. Our investment performance is highly sensitive to many factors, including interest rates, inflation, monetary and fiscal policies, and domestic and international political conditions. The volatility of our losses may force us to liquidate securities, which may cause us to incur capital losses. Realized and unrealized losses in our investment portfolio would reduce our book value, and if significant, can affect our ability to conduct business.

Volatility in interest rates could impact the performance of our investment portfolio which could have an adverse effect on our investment income and operating results. Although we take measures to manage the risks of investing in a changing interest rate environment, we may not be able to effectively mitigate interest rate sensitivity. Our mitigation efforts include maintaining a high-quality portfolio of primarily fixed income investments with a relatively short duration to reduce the effect of interest rate changes on book value. A significant increase in interest rates would generally have an adverse effect on our book value. Our life insurance investments typically focus on longer duration bonds to better match the obligations of this business. For the life insurance business, policyholder behavior may be influenced by changing interest rate conditions and require a re-balancing of duration to effectively manage our asset/liability position.

As stated, our fixed income portfolio is primarily invested in high quality, investment-grade securities. However, a smaller portion of the portfolio, approximately 18 percent at December 31, 2020, is invested in below investment-grade securities. These securities, which pay a higher rate of interest, also have a higher degree of credit or default risk and may also be less liquid in times of economic weakness or market disruptions. While we have put in place procedures to monitor the credit risk and liquidity of our invested assets, it is possible that, in periods of economic weakness (such as recession), we may experience credit or default losses in our portfolio, which could adversely affect our results of operations and financial condition.

As a part of our ongoing analysis of our investment portfolio, we are required to assess current expected credit losses for all held-to-maturity securities and evaluate expected credit losses for available-for-sale securities when fair value is below amortized cost, which considers reasonable and supportable forecasts of future economic conditions in addition to information about past events and current conditions. This analysis requires a high degree of judgment. Financial assets with similar risk characteristics and relevant historical loss information are included in the development of an estimate of expected lifetime losses. Declines in relevant stock and other financial markets and other factors impacting the value of our investments could result in an adverse effect on our net income and other financial results.

We may require additional capital or financing sources in the future, which may not be available or may be available only on unfavorable terms.
Our future capital and financing requirements depend on many factors, including our ability to write new business successfully and to establish premium rates and reserves at levels sufficient to cover losses, as well as our investment performance and capital expenditure obligations, including with respect to acquisitions. We may need to raise additional funds through financings or access funds through existing or new credit facilities or through short-term repurchase agreements. We also from time to time seek to refinance debt or credit as amounts become due or commitments expire. Any equity or debt financing or refinancing, if available at all, may be on terms that are not favorable to us. In the case of equity financings, dilution to our shareholders could result, and in any case, such securities may have rights, preferences, and privileges that are senior to those of our Common Shares. Our access to funds under existing credit facilities is dependent on the ability of the banks that are parties to the facilities to meet their funding commitments. Under Swiss law we would be prohibited from selling shares in an equity financing at a purchase price below our then-current par value. If we cannot obtain adequate capital or sources of credit on favorable terms, or at all, we could be forced to use assets otherwise available for our business operations, and our business, results of operations, and financial condition could be adversely affected.

We may be required to post additional collateral because of changes in our reinsurance liabilities to regulated insurance companies, or because of regulatory changes that affect our companies.
If our reinsurance liabilities increase, including in our property & casualty and variable annuity reinsurance businesses, we may be required to post additional collateral for insurance company clients. In addition, regulatory changes sometimes affect our obligations to post collateral. The need to post this additional collateral, if significant enough, may require us to sell investments at a loss in order to provide securities of suitable credit quality or otherwise secure adequate capital at an unattractive cost. This could adversely impact our net income and liquidity and capital resources.

U.S. and global economic and financial industry events and their consequences could harm our business, our liquidity and financial condition, and our stock price.
The consequences of adverse global or regional market and economic conditions may affect (among other aspects of our business) the demand for and claims made under our products, the ability of customers, counterparties, and others to establish or maintain their relationships with us, our ability to access and efficiently use internal and external capital resources, the availability of reinsurance protection, the risks we assume under reinsurance programs covering variable annuity guarantees, and our investment performance. The increasing impact of climate change could affect our cost of claims, loss ratios, and financial results. Volatility in the U.S. and other securities markets may adversely affect our stock price.

A decline in our financial strength ratings could affect our standing among distribution partners and customers and cause our premiums and earnings to decrease. A decline in our debt ratings could increase our borrowing costs and impact our ability to access capital markets.
Ratings are an important factor in establishing the competitive position of insurance and reinsurance companies. The objective of these rating systems is to provide an opinion of an insurer's financial strength and ability to meet ongoing obligations to its policyholders. A ratings downgrade could result in a substantial loss of business as insureds, ceding companies, and brokers move to other insurers and reinsurers with higher ratings. If one or more of our debt ratings were downgraded, we could also incur higher borrowing costs, and our ability to access the capital markets could be impacted. Additionally, we could be required to post collateral or be faced with the cancellation of policies and resulting premium in certain circumstances. We

cannot give any assurance regarding whether or to what extent any of the rating agencies might downgrade our ratings in the future.

Our ability to pay dividends and/or to make payments on indebtedness may be constrained by our holding company structure.
Chubb Limited is a holding company that owns shares of its operating insurance and reinsurance subsidiaries along with several loans receivable from affiliates. Beyond this it does not itself have any significant operations or liquid assets. Repayment of loans receivable, guarantee fees and dividends and other permitted distributions from our insurance subsidiaries are its primary sources of funds to meet ongoing cash requirements, including any future debt service payments, other expenses, repurchases of its shares, and to pay dividends to our shareholders. Some of our insurance subsidiaries are subject to significant regulatory restrictions limiting their ability to declare and pay dividends. The inability of our insurance subsidiaries to pay dividends (or other intercompany amounts due, such as intercompany debt obligations) in an amount sufficient to enable us to meet our cash requirements at the holding company level could have an adverse effect on our operations and our ability to repurchase shares and pay dividends to our shareholders.

Swiss law imposes certain restrictions on our ability to repurchase our shares.
Swiss law imposes certain withholding tax and other restrictions on a Swiss company's ability to return earnings or capital to its shareholders, including through the repurchase of its own shares. We may only repurchase shares to the extent that sufficient freely distributable reserves are available. In addition, Swiss law requires that the total par value of Chubb's acquisition of treasury shares must not be in excess of 10 percent of its total share capital. As a result, in order to maintain our share repurchase program, our shareholders must periodically authorize, through ballot item approval at our annual general meeting, a reduction in our share capital through the cancellation of designated blocks of repurchased shares held in treasury. If our shareholders do not approve the cancellation of previously repurchased shares, we may be unable to return capital to shareholders through share repurchases in the future. Furthermore, our current repurchase program relies on a Swiss tax ruling. Any future revocation or loss of our Swiss tax ruling or the inability to conduct repurchases in accordance with the ruling could also jeopardize our ability to continue repurchasing our shares.

Our operating results and shareholders' equity may be adversely affected by currency fluctuations.
Our reporting currency is the U.S. dollar. In general, we match assets and liabilities in local currencies. Where possible, capital levels in local currencies are limited to satisfy minimum regulatory requirements and to support local insurance operations. The principal currencies creating foreign exchange risk are the euro, British pound, Canadian dollar, Chinese yuan, Australian dollar, Mexican peso, Brazilian real, Korean won, Japanese yen, Thai baht, and Hong Kong dollar. At December 31, 2020, approximately 21.4 percent of our net assets were denominated in foreign currencies. We may experience losses resulting from fluctuations in the values of non-U.S. currencies, which could adversely impact our results of operations and financial condition.

Operational

The regulatory and political regimes under which we operate, and their volatility, could have an adverse effect on our business.
We may from time to time face challenges resulting from changes in applicable law and regulations in particular jurisdictions, or changes in approach to oversight of our business from insurance or other regulators.

Our insurance and reinsurance subsidiaries conduct business globally. Our businesses in each jurisdiction are subject to varying degrees of regulation and supervision. The laws and regulations of the jurisdictions in which our insurance and reinsurance subsidiaries are domiciled require, among other things, maintenance of minimum levels of statutory capital, surplus, and liquidity; various solvency standards; and periodic examinations of subsidiaries' financial condition. In some jurisdictions, laws and regulations also restrict payments of dividends and reductions of capital. Applicable statutes, regulations, and policies may also restrict the ability of these subsidiaries to write insurance and reinsurance policies, to make certain investments, and to distribute funds. The purpose of insurance laws and regulations generally is to protect policyholders and ceding insurance companies, not our shareholders. For example, some jurisdictions have enacted various consumer protection laws that make it more burdensome for insurance companies to sell policies and interact with customers in personal lines businesses. Failure to comply with such regulations can lead to significant penalties and reputational injury.

The foreign and U.S. federal and state laws and regulations that are applicable to our operations are complex and may increase the costs of regulatory compliance or subject our business to the possibility of regulatory actions or proceedings. Laws and regulations not specifically related to the insurance industry include trade sanctions that relate to certain countries, anti-money laundering laws, and anti-corruption laws. The insurance industry is also affected by political, judicial, and legal developments that may create new and expanded regulations and theories of liability. The current economic and financial climates present

additional uncertainties and risks relating to increased regulation and the potential for increased involvement of the U.S. and other governments in the financial services industry.

Regulators in countries where we have operations continue to work with the International Association of Insurance Supervisors (IAIS) to consider changes to insurance company supervision, including with respect to group supervision and solvency requirements. The IAIS has developed a Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame), which is focused on the effective group-wide supervision of international active insurance groups (IAIGs), such as Chubb. As part of ComFrame, the IAIS is developing an international capital standard for such IAIGs. The details of this global capital standard and its applicability to Chubb are evolving and uncertain at this time. In addition, Chubb businesses across the EU are subject to Solvency II, a capital and risk management regime, and our Bermuda businesses are subject to an equivalent of the EU's Solvency II regime. Also applicable to Chubb businesses are the requirements of the Swiss Financial Market Supervisory Authority (FINMA) whose regulations include Swiss Solvency Tests. There are also Risk Based Capital (RBC) requirements in the U.S. which are also subject to revision in response to global developments. The impact to Chubb of these developments remains uncertain, although currently we do not expect that our capital management strategies, results of operations and financial condition will be materially affected by these regulatory changes.

Evolving privacy and data security regulations could adversely affect our business.
We are subject to numerous U.S. federal and state laws and non-U.S. regulations governing the protection of personal and confidential information of our clients and employees, including in relation to medical records, credit card data and financial information. These laws and regulations are increasing in complexity and number, change frequently, sometimes conflict, and could expose Chubb to significant monetary damages, regulatory enforcement actions, fines and/or criminal prosecution in one or more jurisdictions.

We are subject to the New York Department of Financial Services' Cybersecurity Regulation (the NYDFS Cybersecurity Regulation) which mandates detailed cybersecurity standards for all institutions, including insurance entities, authorized by the NYDFS to operate in New York. The NYDFS Cybersecurity Regulation has increased our compliance costs and could increase the risk of noncompliance and subject us to regulatory enforcement actions and penalties, as well as reputation risk.

Additionally, the National Association of Insurance Commissioners (NAIC) adopted an Insurance Data Security Model Law, which requires licensed insurance entities to comply with detailed information security requirements. A number of states have enacted it into law, and it is not yet known whether or not, and to what extent, additional states will enact it. Such enactments, especially if inconsistent between states or with existing laws and regulations could raise compliance costs or increase the risk of noncompliance, with the attendant risk of being subject to regulatory enforcement actions and penalties, as well as reputational harm.

The EU General Data Protection Regulation (the "GDPR") is a comprehensive regulation applying across all EU member states. All our business units (regardless of whether they are located in the EU) may be subject to the GDPR when personal data is processed in relation to the offer of goods and services to individuals within the EU. Our failure to comply with GDPR and other countries' privacy or data security-related laws, rules or regulations could result in significant penalties imposed by regulators, which could have an adverse effect on our business, financial condition and results of operations.

Significant other comprehensive privacy laws have been enacted by other jurisdictions, most notably the California Consumer Privacy Act (CCPA), the California Privacy Rights Act (CPRA), and Brazil's Lei Geral de Protecao de Dados (LGPD), which may affect our use of data and could affect our operations and subject us to fines and actions for noncompliance. In the U.S., several other states are considering similar legislation, and there are ongoing discussions regarding a National Privacy Law. New laws similar to the GDPR and the CCPA are expected to be enacted in coming years in various countries and jurisdictions in which we operate.

Economic uncertainty in either or both of the United Kingdom ("U.K.") and the European Union ("EU"), and/or operational uncertainty between them, may have an adverse effect on our business, our liquidity and financial condition, and our stock price.
The U.K. ceased to be a member of the EU on January 31, 2020 ("Brexit"). Economic relations between the U.K. and the EU are now governed by a Trade and Cooperation Agreement which is limited in scope to primarily the trade of goods, transport, energy links and fishing. Uncertainties remain relating to certain aspects of the U.K.'s future economic, trading and legal relationships with the EU and with other countries, including with respect to financial services industries such as ours. Moreover, free movement of persons, services and capital between the U.K. and the EU ended on January 1, 2021, which has meant the loss to U.K./EU service sectors of the automatic right to offer such services across the EU and U.K. The overall

macroeconomic impact of Brexit - an impact which inevitably affects the volume of business we transact in Europe - is not yet clear. Throughout both the EU and U.K., we have significant investments in both financial and human resources, as well as a large portfolio of commercial and consumer insurance business. On an operational level, we have already redomiciled our primary European carriers from the U.K. to France although we will continue to have a substantial presence in London and elsewhere in the U.K.

Our worldwide operations, particularly in developing nations, expose us to global geopolitical developments that could have an adverse effect on our business, liquidity, results of operations, and financial condition.
With operations in 54 countries and territories, we provide insurance and reinsurance products and services to a diverse group of clients worldwide, including operations in various developing nations. Both current and future foreign operations could be adversely affected by unfavorable geopolitical developments including law changes; tax changes; changes in trade policies; changes to visa or immigration policies; regulatory restrictions; government leadership changes; political events and upheaval; sociopolitical instability; social, political or economic instability resulting from climate change; and nationalization of our operations without compensation. Adverse activity in any one country could negatively impact operations, increase our loss exposure under certain of our insurance products, and could, otherwise, have an adverse effect on our business, liquidity, results of operations, and financial condition depending on the magnitude of the events and our net financial exposure at that time in that country.

A failure in our operational systems or infrastructure or those of third parties, including due to security breaches or cyber-attacks, could disrupt business, damage our reputation, and cause losses.
Our operations rely on the secure processing, storage, and transmission of confidential and other information and assets, including in our computer systems and networks and those of third-party service providers. Our business depends on effective information security and systems and the integrity and timeliness of the data our information systems use to run our business. Our ability to adequately price products and services, to establish reserves, to provide effective, efficient and secure service to our customers, to value our investments and to timely and accurately report our financial results also depends significantly on the integrity and availability of the data we maintain, including that within our information systems, as well as data in and assets held through third-party service providers and systems. Although we have implemented administrative and technical controls and have taken protective actions to reduce the risk of cyber incidents and to protect our information technology and assets, and although we additionally endeavor to modify such procedures as circumstances warrant and negotiate agreements with third-party providers to protect our assets, such measures may be insufficient to prevent unauthorized access, computer viruses, malware or other malicious code or cyber-attack, business compromise attacks, catastrophic events, system failures and disruptions, employee errors or malfeasance, third party (including outsourced service providers) errors or malfeasance, loss of assets and other events that could have security consequences (each, a Security Event). As the breadth and complexity of our security infrastructure continues to grow, the potential risk of a Security Event increases. Such an event or events may jeopardize Chubb's or its clients' or counterparties' confidential and other information processed and stored within Chubb, and transmitted through its computer systems and networks, or otherwise cause interruptions, delays, or malfunctions in Chubb's, its clients', its counterparties', or third parties' operations, or result in data loss or loss of assets which could result in significant losses, reputational damage or an adverse effect on our operations and critical business functions. Chubb may be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures and to pursue recovery of lost data or assets and we may be subject to litigation and financial losses that are either not insured against or not fully covered by insurance maintained.

Despite the contingency plans and facilities we have in place and our efforts to observe the regulatory requirements surrounding information security, our ability to conduct business may be adversely affected by a disruption of the infrastructure that supports our business in the communities in which we are located, or of outsourced services or functions. This may include a disruption involving electrical, communications, transportation, or other services used by Chubb. If a disruption occurs in one location and Chubb employees in that location are unable to occupy our offices and conduct business or communicate with or travel to other locations, our ability to service and interact with clients may suffer and we may not be able to successfully implement contingency plans that depend on communication or travel.

We use analytical models to assist our decision making in key areas such as underwriting, claims, reserving, and catastrophe risks but actual results could differ materially from the model outputs and related analyses.
We use various modeling techniques (e.g., scenarios, predictive, stochastic and/or forecasting) and data analytics to analyze and estimate exposures, loss trends and other risks associated with our assets and liabilities. We use the modeled outputs and related analyses to assist us in decision-making (e.g., underwriting, pricing, claims, reserving, reinsurance, and catastrophe risk) and to maintain competitive advantage. The modeled outputs and related analyses are subject to various assumptions, uncertainties, model errors and the inherent limitations of any statistical analysis, including the use of historical internal and industry data. In addition, the modeled outputs and related analyses may from time to time contain inaccuracies, perhaps in

material respects, including as a result of inaccurate inputs or applications thereof. Climate change may make modeled outcomes less certain or produce new, non-modeled risks. Consequently, actual results may differ materially from our modeled results. If, based upon these models or other factors, we misprice our products or underestimate the frequency and/or severity of loss events, or overestimate the risks we are exposed to, new business growth and retention of our existing business may be adversely affected which could have an adverse effect on our results of operations and financial condition.

We could be adversely affected by the loss of one or more key executives or by an inability to attract and retain qualified personnel.
Our success depends on our ability to retain the services of our existing key executives and to attract and retain additional qualified personnel in the future. The loss of the services of any of our key executives or the inability to hire and retain other highly qualified personnel in the future could adversely affect our ability to conduct or grow our business. This risk may be particularly acute for us relative to some of our competitors because some of our senior executives work in countries where they are not citizens and work permit and immigration issues could adversely affect the ability to retain or hire key persons. We do not maintain key person life insurance policies with respect to our employees.

Employee error and misconduct may be difficult to detect and prevent and could adversely affect our business, results of operations, and financial condition.
Losses may result from, among other things, fraud, errors, failure to document transactions properly, failure to obtain proper internal authorization, failure to comply with underwriting or other internal guidelines, or failure to comply with regulatory requirements. It is not always possible to deter or prevent employee misconduct and the precautions that we take to prevent and detect this activity may not be effective in all cases. Resultant losses could adversely affect our business, results of operations, and financial condition.

Strategic

The continually changing landscape, including competition, technology and products, and existing and new market entrants could reduce our margins and adversely impact our business and results of operations.
Insurance and reinsurance markets are highly competitive. We compete on an international and regional basis with major U.S., Bermuda, European, and other international insurers and reinsurers and with underwriting syndicates, some of which have greater financial, technological, marketing, distribution and/or management resources than we do. In addition, capital market participants have created alternative products that are intended to compete with reinsurance products. We also compete with new companies and existing companies that move into the insurance and reinsurance markets. If competition, or technological or other changes to the insurance markets in which we operate, limits our ability to retain existing business or write new business at adequate rates or on appropriate terms, our business and results of operations could be materially and adversely affected. Increased competition could also result in fewer submissions, lower premium rates, and less favorable policy terms and conditions, which could reduce our profit margins and adversely impact our net income and shareholders' equity.

Recent technological advancements in the insurance industry and information technology industry present new and fast-evolving competitive risks as participants seek to increase transaction speeds, lower costs and create new opportunities. Advancements in technology are occurring in underwriting, claims, distribution and operations at a pace that may quicken, including as companies increase use of data analytics and technology as part of their business strategy. We will be at a competitive disadvantage if, over time, our competitors are more effective than us in their utilization of technology and evolving data analytics. If we do not anticipate or keep pace with these technological and other changes impacting the insurance industry, it could also limit our ability to compete in desired markets.

Insurance and reinsurance markets are historically cyclical, and we expect to experience periods with excess underwriting capacity and unfavorable premium rates.
The insurance and reinsurance markets have historically been cyclical, characterized by periods of intense price competition due to excessive underwriting capacity as well as periods when shortages of capacity permitted favorable premium levels. An increase in premium levels is often offset by an increasing supply of insurance and reinsurance capacity, either by capital provided by new entrants or by the commitment of additional capital by existing insurers or reinsurers, which may cause prices to decrease. Any of these factors could lead to a significant reduction in premium rates, less favorable policy terms, and fewer submissions for our underwriting services. In addition to these considerations, changes in the frequency and severity of losses suffered by insureds and insurers may affect the cycles of the insurance and reinsurance markets significantly, as could periods of economic weakness (such as recession).

The integration of acquired companies may not be as successful as we anticipate.
Acquisitions involve numerous operational, strategic, financial, accounting, legal, tax, and other risks; potential liabilities associated with the acquired businesses; and uncertainties related to design, operation and integration of acquired businesses' internal controls over financial reporting. Difficulties in integrating an acquired company, along with its personnel, may result in the acquired company performing differently than we expected, in operational challenges or in our failure to realize anticipated expense-related efficiencies. This may also apply to companies in which we acquire majority ownership. Our existing businesses could also be negatively impacted by acquisitions. In addition, goodwill and intangible assets recorded in connection with insurance company acquisitions may be impaired if premium growth, underwriting profitability, agency retention and policy persistency, among other factors, differ from expectations.

There is also the potential that proposed acquisitions that have been publicly announced will not be consummated, even if a definitive agreement has been signed by the parties. If an agreement is terminated before closing, the result would be that our proposed acquisition would not occur, which could, among other things, expose us to damages or liability and adversely impact our stock price and future operations.

We may be subject to U.S. tax and Bermuda tax which may have an adverse effect on our results of operations and shareholder investment.
Chubb Limited and our non-U.S. subsidiaries operate in a manner so that none of these companies should be subject to U.S. tax (other than U.S. excise tax on insurance and reinsurance premium income attributable to insuring or reinsuring U.S. risks and U.S. withholding tax on some types of U.S. source investment income), because none of these companies should be treated as engaged in a trade or business within the U.S. However, because there is considerable uncertainty as to the activities that constitute being engaged in a trade or business within the U.S., we cannot be certain that the Internal Revenue Service (IRS) will not contend successfully that Chubb Limited or its non-U.S. subsidiaries are engaged in a trade or business in the U.S. If Chubb Limited or any of its non-U.S. subsidiaries were considered to be engaged in a trade or business in the U.S., such entity could be subject to U.S. corporate income and branch profits taxes on the portion of its earnings effectively connected to such U.S. business, in which case our results of operations and our shareholders' investments could be adversely affected.

The Bermuda Minister of Finance, under the Exempted Undertakings Tax Protection Act 1966 of Bermuda, as amended, has given Chubb Limited and its Bermuda insurance subsidiaries a written assurance that if any legislation is enacted in Bermuda that would impose tax computed on profits or income, or computed on any capital asset, gain, or appreciation, or any tax in the nature of estate duty or inheritance tax, then the imposition of any such tax would not be applicable to those companies or any of their respective operations, shares, debentures, or other obligations until March 31, 2035, except insofar as such tax would apply to persons ordinarily resident in Bermuda or is payable by us in respect of real property owned or leased by us in Bermuda. We cannot be certain that we will not be subject to any Bermuda tax after March 31, 2035.

We could be adversely affected by certain features of the 2017 U.S. tax reform legislation.
Tax legislation known as the Tax Cuts and Jobs Act (2017 Tax Act) was enacted in the U.S. on December 22, 2017. In addition to reducing the U.S. corporate income tax rate from 35 percent to 21 percent, it fundamentally changed many elements of the pre-2017 Tax Act U.S. tax law and introduced several new concepts to tax multinational corporations such as us. Among the most notable new rules are the Base Erosion and Anti-Abuse Tax (commonly called BEAT), which may apply as a result of payments by U.S. taxpayers to non-U.S. affiliates, and the Global Intangible Low Taxed Income (GILTI) addition to Subpart F income, which for insurance groups potentially expands U.S. taxation on the earnings of foreign subsidiaries. The 2017 Tax Act also included a one-time reduced-rate transition tax in 2017 on previously untaxed post-1986 earnings of foreign subsidiaries of U.S. corporations. The 2017 Tax Act, which was generally effective in 2018, is a complex law with many significant new provisions. Since enactment, the IRS and U.S. Treasury Department have continued to issue rulings, notices, and proposed and final regulations to assist taxpayers in understanding and implementing the new provisions. Some of this guidance remains subject to comment or in proposed form; thus, there are many uncertainties relating to its ultimate application and effects on our company.

The Biden Administration and several members of the U.S. Congress have suggested enacting legislation intended to modify aspects of the 2017 Tax Act. This legislation may include increases to the corporate income tax rate, as well as modifications to the GILTI provisions. It is possible that such legislation or other legislation could be enacted in the future and could have an adverse impact on us or our shareholders.

The Organization for Economic Cooperation and Development (OECD) and the European Union (EU) are considering measures that might change long standing tax principles that could increase our taxes.
The OECD has published a framework for taxation that in many respects is different than long standing international tax principles. This framework is a proposal that we expect to develop further in 2021 as it is designed by the OECD Secretariat. This framework is an alternative to digital services taxes that several countries have enacted or are considering. These changes could redefine what income is taxed in which country and institute a global minimum tax. These proposals may be completed sometime in 2021 or later which could be adopted by OECD countries in 2022 or later years. As countries unilaterally amend their tax laws to adopt certain parts of the OECD framework, this may increase the company's income taxes and cause uncertainties related to our income taxes.

The OECD also published an action plan several years ago to address base erosion and profit shifting (BEPS) impacting its member countries and other jurisdictions. It is possible that jurisdictions in which we do business could continue to react to the BEPS initiative or their own concerns by enacting tax legislation that could adversely affect us or our shareholders.

Several multilateral organizations, including the EU and the OECD have, in recent years, expressed concern about some countries not participating in adequate tax information exchange arrangements and have threatened those that do not agree to cooperate with punitive sanctions by member countries. It is still unclear what all these sanctions might be, which countries might adopt them, and when or if they might be imposed. We cannot assure, however, that the Tax Information Exchange Agreements (TIEAs) that have been entered into by Switzerland and Bermuda will be sufficient to preclude all of the sanctions described above, which, if ultimately adopted, could adversely affect us or our shareholders.

Shareholders

There are provisions in our charter documents that may reduce the voting rights and diminish the value of our Common Shares.
Our Articles of Association generally provide that shareholders have one vote for each Common Share held by them and are entitled to vote at all meetings of shareholders. However, the voting rights exercisable by a shareholder may be limited so that certain persons or groups are not deemed to hold 10 percent or more of the voting power conferred by our Common Shares. Moreover, these provisions could have the effect of reducing the voting power of some shareholders who would not otherwise be subject to the limitation by virtue of their direct share ownership. The Board of Directors may refuse to register holders of shares as shareholders with voting rights based on certain grounds, including if the holder would, directly or indirectly, formally, constructively or beneficially own (as described in Articles 8 and 14 of our Articles of Association) or otherwise control voting rights with respect to 10 percent or more of the registered share capital recorded in the commercial register. In addition, the Board of Directors shall reject entry of holders of registered shares as shareholders with voting rights in the share register or shall decide on their deregistration when the acquirer or shareholder upon request does not expressly state that she/he has acquired or holds the shares in her/his own name and for her/his account.

Applicable laws may make it difficult to effect a change of control of our company.
Before a person can acquire control of a U.S. insurance company, prior written approval must be obtained from the insurance commissioner of the state where the domestic insurer is domiciled. Prior to granting approval of an application to acquire control of a domestic insurer, the state insurance commissioner will consider such factors as the financial strength of the applicant, the integrity and management of the applicant's Board of Directors and executive officers, the acquirer's plans for the future operations of the domestic insurer, and any anti-competitive results that may arise from the consummation of the acquisition of control. Generally, state statutes provide that control over a domestic insurer is presumed to exist if any person, directly or indirectly, owns, controls, holds with the power to vote, or holds proxies representing 10 percent or more of the voting securities of the domestic insurer. Because a person acquiring 10 percent or more of our Common Shares would indirectly control the same percentage of the stock of our U.S. insurance subsidiaries, the insurance change of control laws of various U.S. jurisdictions would likely apply to such a transaction. Laws of other jurisdictions in which one or more of our existing subsidiaries are, or a future subsidiary may be, organized or domiciled may contain similar restrictions on the acquisition of control of Chubb.

While our Articles of Association limit the voting power of any shareholder to less than 10 percent, we cannot assure that the applicable regulatory body would agree that a shareholder who owned 10 percent or more of our Common Shares did not, because of the limitation on the voting power of such shares, control the applicable insurance subsidiary.

These laws may discourage potential acquisition proposals and may delay, deter, or prevent a change of control of Chubb, including transactions that some or all of our shareholders might consider to be desirable.

Shareholder voting requirements under Swiss law may limit our flexibility with respect to certain aspects of capital management.
Swiss law allows our shareholders to authorize share capital which can be issued by the Board of Directors without shareholder approval, but this authorization must be renewed by the shareholders every two years. Swiss law also does not provide as much flexibility in the various terms that can attach to different classes of stock as permitted in other jurisdictions. Swiss law also reserves for approval by shareholders many corporate actions over which the Board of Directors had authority prior to our re-domestication to Switzerland. For example, dividends must be approved by shareholders. While we do not believe that Swiss law requirements relating to our capital management will have an adverse effect on Chubb, we cannot assure that situations will not arise where such flexibility would have provided substantial benefits to our shareholders.

Chubb Limited is a Swiss company; it may be difficult to enforce judgments against it or its directors and executive officers.
Chubb Limited is incorporated pursuant to the laws of Switzerland. In addition, certain of our directors and officers reside outside the U.S. and all or a substantial portion of our assets and the assets of such persons are located in jurisdictions outside the U.S. As such, it may be difficult or impossible to effect service of process within the U.S. upon those persons or to recover against us or them on judgments of U.S. courts, including judgments predicated upon civil liability provisions of the U.S. federal securities laws.

Chubb has been advised by its Swiss counsel that there is doubt as to whether the courts in Switzerland would enforce:
- judgments of U.S. courts based upon the civil liability provisions of the U.S. federal securities laws obtained in actions against it or its directors and officers, who reside outside the U.S.; or
- original actions brought in Switzerland against these persons or Chubb predicated solely upon U.S. federal securities laws.

Chubb has also been advised by its Swiss counsel that there is no treaty in effect between the U.S. and Switzerland providing for this enforcement and there are grounds upon which Swiss courts may not enforce judgments of U.S. courts. Some remedies available under the laws of U.S. jurisdictions, including some remedies available under the U.S. federal securities laws, would not be allowed in Swiss courts as contrary to that nation's public policy.

Shareholders may be subject to Swiss withholding taxes on the payment of dividends.
Our dividends are generally subject to a Swiss withholding tax at a rate of 35 percent; however, payment of a dividend in the form of a par value reduction or qualifying capital contribution reserve reduction is not subject to Swiss withholding tax. We have previously obtained shareholder approval for dividends to be paid in such form. It is our practice to recommend to shareholders that they annually approve the payment of dividends in such form but we cannot assure that our shareholders will continue to approve a reduction in such form each year or that we will be able to meet the other legal requirements for a reduction in par value, or that Swiss withholding tax rules will not be changed in the future. We estimate we would be able to pay dividends in such form, and thus exempt from Swiss withholding tax until 2028–2033. This range may vary depending upon changes in annual dividends, special dividends, certain share repurchases, fluctuations in U.S. dollar/Swiss franc exchange rate, changes in par value or qualifying capital contribution reserves or changes or new interpretations to Swiss corporate or tax law or regulations.

Under certain circumstances, U.S. shareholders may be subject to adverse U.S. federal income tax consequences.
Under certain circumstances, a U.S. person who owns or is deemed to own 10 percent or more of the voting power or value of a foreign corporation that is a "controlled foreign corporation" (CFC) (a foreign corporation in which 10 percent U.S. shareholders own or are deemed to own more than 50 percent of the voting power or value of the stock of a foreign corporation or more than 25 percent of certain foreign insurance corporations) for any period during a taxable year must include in gross income for U.S. federal income tax purposes a pro rata share of the CFC's "subpart F income". We believe that because of the dispersion of our share ownership it is unlikely that any U.S. person who acquires shares of Chubb Limited directly or indirectly through one or more foreign entities should be required to include any subpart F income in income under the CFC rules of U.S. tax law.

Separately, any U.S. persons who hold shares may be subject to U.S. federal income taxation at ordinary income tax rates on their proportionate share of our Related Person Insurance Income (RPII). If the RPII of any of our non-U.S. insurance subsidiaries (each a "Non-U.S. Insurance Subsidiary") were to equal or exceed 20 percent of that company's gross insurance income in any taxable year and direct or indirect insureds (and persons related to those insureds) own directly or indirectly through foreign entities 20 percent or more of the voting power or value of Chubb Limited, then a U.S. person who owns any shares of Chubb Limited (directly or indirectly through foreign entities) on the last day of the taxable year would be required to include in his or her income for U.S. federal income tax purposes such person's pro rata share of such company's RPII for the taxable year. In addition, any RPII that is includible in the income of a U.S. tax-exempt organization may be treated as unrelated

business taxable income. We believe that the gross RPII of each Non-U.S. Insurance Subsidiary did not in prior years of operation and is not expected in the foreseeable future to equal or exceed 20 percent of each such company's gross insurance income. Likewise, we do not expect the direct or indirect insureds of each Non-U.S. Insurance Subsidiary (and persons related to such insureds) to directly or indirectly own 20 percent or more of either the voting power or value of our shares. However, we cannot be certain that this will be the case because some of the factors which determine the extent of RPII may be beyond our control. If these thresholds are met or exceeded, any U.S. person's investment in Chubb Limited could be adversely affected.

A U.S. tax-exempt organization may recognize unrelated business taxable income if a portion of our insurance income is allocated to the organization. This generally would be the case if either (i) Chubb Limited is considered a CFC and the tax-exempt shareholder is a 10 percent U.S. shareholder or (ii) there is RPII, certain exceptions do not apply, and the tax-exempt organization, directly (or indirectly through foreign entities) owns any shares of Chubb Limited. Although we do not believe that any U.S. tax-exempt organization should be allocated such insurance income, we cannot be certain that this will be the case. Potential U.S. tax-exempt investors are advised to consult their tax advisors.

U.S. persons who hold shares will be subject to adverse tax consequences if we are considered to be a Passive Foreign Investment Company (PFIC) for U.S. federal income tax purposes.
If Chubb Limited is considered a PFIC for U.S. federal income tax purposes, a U.S. person who holds Chubb Limited shares will be subject to adverse U.S. federal income tax consequences in which case their investment could be adversely affected. In addition, if Chubb Limited were considered a PFIC, upon the death of any U.S. individual owning shares, such individual's heirs or estate would not be entitled to a "step-up" in the basis of the shares which might otherwise be available under U.S. federal income tax laws. We believe that we are not, have not been, and currently do not expect to become, a PFIC for U.S. federal income tax purposes. We cannot assure, however, that we will not be deemed a PFIC by the IRS. Recently enacted U.S. federal tax law and recent final and proposed regulations issued by the IRS and U.S. Treasury Department contain new rules that may affect the application of the PFIC provisions to an insurance company. The final regulations are effective for tax years beginning after January 15, 2021 and would not apply to us until 2022. Any shareholder electing to apply certain provisions of the newly finalized or proposed PFIC regulations prior to the effective date could be adversely affected by an investment in us. Shareholders are advised to consult their tax advisors.

ITEM 1B. Unresolved Staff Comments
There are currently no unresolved SEC staff comments regarding our periodic or current reports.

ITEM 2. Properties
We maintain office facilities around the world including in North America, Europe (including our principal executive offices in Switzerland), Bermuda, Latin America, Asia Pacific, and the Far East. Most of our office facilities are leased, although we own major facilities in Hamilton, Bermuda, and in the U.S., including in Philadelphia, Pennsylvania; Wilmington, Delaware; Whitehouse Station, New Jersey; and Simsbury, Connecticut. Management considers its office facilities suitable and adequate for the current level of operations.

ITEM 3. Legal Proceedings
The information required with respect to Item 3 is included in Note 10 h) to the Consolidated Financial Statements, which is hereby incorporated herein by reference.

ITEM 4. Mine Safety Disclosures
Item not applicable.

ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our Common Shares have been listed on the New York Stock Exchange since March 25, 1993, with a current par value of CHF 24.15 per share. The trading symbol for our Common Shares is "CB".

We have paid dividends each quarter since we became a public company in 1993. In 2020 and 2019, our annual dividends were paid by way of a distribution from capital contribution reserves (Additional paid-in capital) through the transfer of dividends from Additional paid-in capital to Retained earnings (free reserves) as approved by our shareholders.

Chubb Limited is a holding company whose principal sources of income are dividends and investment income from its operating subsidiaries. The ability of the operating subsidiaries to pay dividends to us and our ability to pay dividends to our shareholders are each subject to legal and regulatory restrictions. The recommendation and payment of future dividends will be based on the determination of the Board of Directors (Board) and will be dependent upon shareholder approval, profits and financial requirements of Chubb and other factors, including legal restrictions on the payment of dividends and other such factors as the Board deems relevant. Refer to Part I, Item 1A and Part II, Item 7 for additional information.

The number of record holders of Common Shares as of February 11, 2021 was 6,598. This is not the actual number of beneficial owners of Chubb's Common Shares since most of our shareholders hold their shares through a stockbroker, bank or other nominee rather than directly in their own names.

Refer to Part III, Item 12 for information relating to compensation plans under which equity securities are authorized for issuance.

Issuer's Repurchases of Equity Securities for the Three Months Ended December 31, 2020

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 Publicly Announced Plans [3]
October 1 through October 31	144,550	$ 131.11	140,000	$ 1.11 billion
November 1 through November 30	886,702	$ 143.52	883,000	$ 2.48 billion
December 1 through December 31	296,858	$ 152.73	295,000	$ 1.50 billion
Total	1,328,110	$ 144.23	1,318,000	

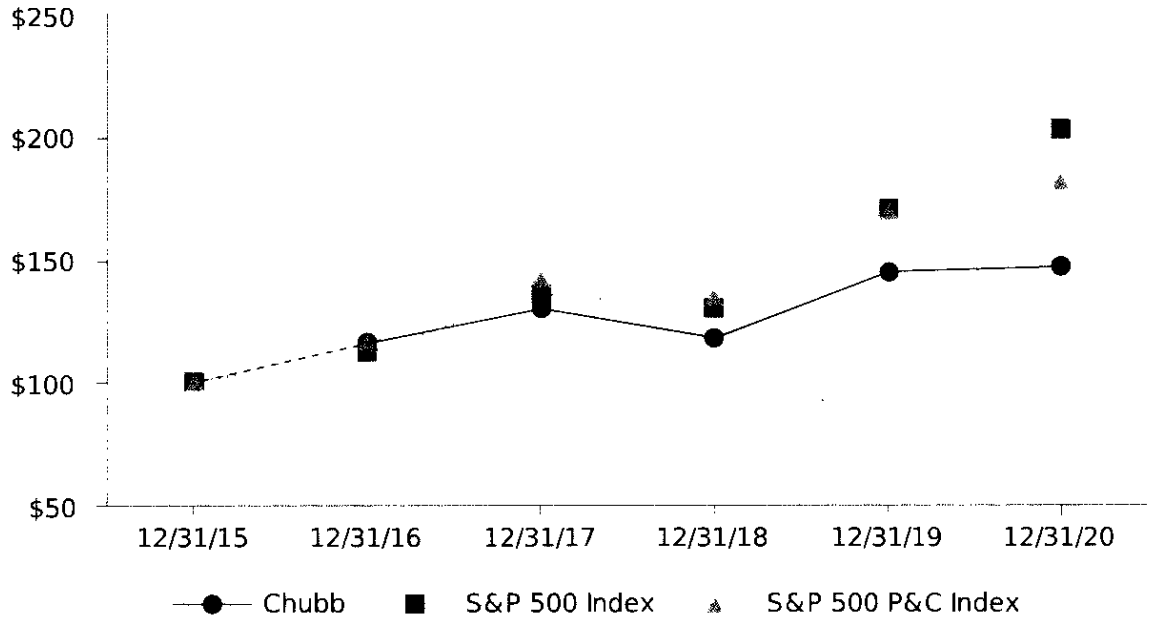
[1] This column represents open market share repurchases and the surrender to Chubb of Common Shares to satisfy tax withholding obligations in connection with the vesting of restricted stock issued to employees and to cover the cost of the exercise of options by employees through stock swaps.

[2] The aggregate value of shares purchased in the three months ended December 31, 2020 as part of the publicly announced plan was $190 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. Subsequently, 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 $1.5 billion November 2019 Board authorization remained effective through December 31, 2020. Repurchases through December 31, 2020 were made under this authorization. For the period January 1, 2021 through February 24, 2021, we repurchased 1,971,000 Common Shares for a total of $327 million in a series of open market transactions under the share repurchase program authorized in November 2020. As of February 24, 2021, $2.17 billion in share repurchase authorization remained through December 31, 2021. Refer to Note 11 to the Consolidated Financial Statements for more information on the Chubb Limited securities repurchase authorizations.

Performance Graph

Set forth below is a line graph comparing the dollar change in the cumulative total shareholder return on Chubb's Common Shares from December 31, 2015, through December 31, 2020, as compared to the cumulative total return of the Standard & Poor's 500 Stock Index and the cumulative total return of the Standard & Poor's Property-Casualty Insurance Index. The cumulative total shareholder return is a concept used to compare the performance of a company's stock over time and is the ratio of the stock price change plus the cumulative amount of dividends over the specified time period (assuming dividend reinvestment), to the stock price at the beginning of the time period. The chart depicts the value on December 31, 2016, 2017, 2018, 2019, and 2020, of a $100 investment made on December 31, 2015, with all dividends reinvested.



	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Chubb Limited	$100	$116	$130	$118	$145	$147
S&P 500 Index	$100	$112	$136	$130	$171	$203
S&P 500 P&C Index	$100	$116	$142	$135	$170	$182

ITEM 6. Selected Financial Data

Not required.

ITEM 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

The following is a discussion of our financial condition and results of operations for the years ended December 31, 2020 and 2019 and comparisons between 2020 and 2019. This discussion should be read in conjunction with the Consolidated Financial Statements and related Notes, under Item 8 of this Form 10-K. Comparisons between 2019 and 2018 have been omitted from this Form 10-K, but can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of our Form 10-K for the year ended December 31, 2019.

All comparisons in this discussion are to the corresponding prior year 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.

MD&A Index

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Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for forward-looking statements. Any written or oral statements made by us or on our behalf may include forward-looking statements that reflect our current views with respect to future events and financial performance. 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 under Part I, Item 1A, under Risk Factors, and 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 December 31, 2020 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 than not that we will be required to sell, or have the intent to sell, available for sale fixed maturity investments before their anticipated recovery;
- 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

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.

We have grown our business through increased premium volume, expansion of product offerings and geographic reach, and acquisitions of other companies. Refer to Note 2 to the Consolidated Financial Statements for our most recent acquisitions.

Our product and geographic diversification differentiate us from the vast majority of our competitors and has been a source of stability during periods of industry volatility. Our long-term business strategy focuses on sustained growth in book value achieved through a combination of underwriting and investment income. By doing so, we provide value to our clients and shareholders through use of our substantial capital base in the insurance and reinsurance markets.

We are organized along a profit center structure by line of business and territory that does not necessarily correspond to corporate legal entities. Profit centers can access various legal entities subject to licensing and other regulatory rules. Profit centers are expected to generate underwriting income and appropriate risk-adjusted returns. Our corporate structure has facilitated the development of management talent by giving each profit center's senior management team the necessary autonomy within underwriting authorities to make operating decisions and create products and coverages needed by its target customer base. We are focused on delivering underwriting profit by only writing policies which we believe adequately compensate us for the risk we accept.

Our insurance and reinsurance operations generate gross revenues from two principal sources: premiums and investment income. Cash flow is generated from premiums collected and investment income received less paid losses and loss expenses, policy acquisition costs, and administrative expenses. Invested assets are substantially held in liquid, investment grade fixed income securities of relatively short duration. Claims payments in any short-term period are highly unpredictable due to the random nature of loss events and the timing of claims awards or settlements. The value of investments held to pay future claims is subject to market forces such as the level of interest rates, stock market volatility, and credit events such as corporate defaults. The actual cost of claims is also volatile based on loss trends, inflation rates, court awards, and catastrophes. We believe that our cash balance, our highly liquid investments, credit facilities, and reinsurance protection provide sufficient liquidity to meet unforeseen claim demands that might occur in the year ahead. Refer to "Liquidity" and "Capital Resources" for additional information.

Financial Highlights for the Year Ended December 31, 2020

- Net income was $3.5 billion compared with $4.5 billion in 2019, including after-tax catastrophe losses of $2.8 billion compared with $966 million in 2019.
- The COVID-19 global pandemic and related economic conditions adversely impacted our results of operations and growth in 2020, including:
  - Net catastrophe losses included a COVID-19 charge of $1,396 million pre-tax ($1,193 million after-tax), generated primarily from entertainment and commercial property-related business interruption, liability insurance products, and workers' compensation. These COVID-19 losses added 4.5 percentage points to the P&C combined ratio.
  - Net premiums written in consumer lines globally declined by 1.9 percent, or 0.9 percent on a constant-dollar basis, principally reflecting the impact of COVID-19. A&H lines experienced negative growth globally and were down 10.6 percent for the year. Partially offsetting the decline was our U.S. high net worth personal lines business, which grew 2.8 percent in 2020.
- Net premiums written were $33.8 billion, up 4.8 percent, or 5.5 percent on a constant-dollar basis with 9.3 percent growth in commercial lines and a decline of 0.9 percent in consumer lines. Refer to page 49 for more detail.
- Net premiums earned were $33.1 billion, up 5.8 percent, or 6.5 percent on a constant-dollar basis with growth in commercial lines of 8.9 percent and consumer lines of 2.5 percent.
- P&C combined ratio was 96.1 percent compared with 90.6 percent in 2019. P&C current accident year combined ratio excluding catastrophe losses was 86.7 percent compared with 89.2 percent in 2019.
- Total pre-tax and after-tax catastrophe losses, including reinstatement premiums, were $3.3 billion and $2.8 billion, respectively, compared with $1.2 billion and $966 million, respectively, in 2019. Refer to the Consolidated Operating Results section for additional information on our catastrophe losses.
- Total pre-tax and after-tax favorable prior period development were $395 million (1.2 percentage points of the combined ratio) and $357 million, respectively, compared with $792 million (2.7 percentage points of the combined ratio) and $624 million, respectively, in 2019.
- Operating cash flow was $9.8 billion compared with $6.3 billion in 2019, an increase of $3.4 billion primarily due to higher premiums collected and reduced payment activity due to the economic slowdown related to COVID-19 pandemic. Refer to the Liquidity section for additional information on our cash flows.
- Net investment income was $3,375 million compared with $3,426 million in 2019.
- Share repurchases totaled $516 million, or approximately 3.6 million shares for the year, at an average purchase price of $143.91 per share.
- Shareholders' equity increased 7.4 percent during the year, principally reflecting strong underlying growth and realized and unrealized gains in our investment portfolio.

Outlook

Our premium growth in 2020 reflected increases in commercial P&C lines globally from new business, positive rate increases and higher renewal retention. This growth was tempered by decreases in consumer lines, primarily from outside North America, reflecting the adverse impact of the economic contraction resulting from the COVID-19 pandemic.

Looking forward, we are off to a good start to the year in the first quarter with both growth and the level of commercial P&C rate increases resembling the underwriting conditions of the fourth quarter. We expect the current market condition to continue which will allow us to continue to grow revenue and expand underwriting margins in our commercial lines. For consumer lines, growth globally in the fourth quarter of 2020 continued to be impacted by the pandemic's effects on consumer-related activities. Our international personal lines business and our global A&H business together shrank eight percent. We expect growth to return in these businesses as the year progresses.

In 2019, Chubb entered into agreements to acquire an additional 22.4 percent ownership interest in Huatai Group through two separate purchases. The first purchase, which was for a 15.3 percent interest, was completed in July 2020. We expect that the second purchase, which was for a 7.1 percent interest, will be completed in the future, contingent upon important conditions. Separately, in November 2020, we completed the purchase of an incremental 0.9 percent ownership interest in Huatai Group, bringing Chubb's aggregate ownership interest to 47.1 percent as of December 31, 2020. We continue to apply equity method accounting until we complete the 7.1 percent purchase, which will result in majority ownership at which point we expect to apply consolidation accounting.

Critical Accounting Estimates

Our Consolidated Financial Statements include amounts that, either by their nature or due to requirements of generally accepted accounting principles in the U.S. (GAAP), are determined using best estimates and assumptions. While we believe that the amounts included in our Consolidated Financial Statements reflect our best judgment, actual amounts could ultimately materially differ from those currently presented. We believe the items that require the most subjective and complex estimates are:

- unpaid loss and loss expense reserves, including long-tail asbestos and environmental (A&E) reserves and non-A&E casualty exposures;
- future policy benefits reserves;
- the valuation of value of business acquired (VOBA) and amortization of deferred policy acquisition costs and VOBA;
- the assessment of risk transfer for certain structured insurance and reinsurance contracts;
- reinsurance recoverable, including a valuation allowance for uncollectible reinsurance;
- the valuation of our investment portfolio and assessment of valuation allowance for expected credit losses;
- the valuation of deferred income taxes;
- the valuation of derivative instruments related to guaranteed living benefits (GLB); and
- the assessment of goodwill for impairment.

We believe our accounting policies for these items are of critical importance to our Consolidated Financial Statements. The following discussion provides more information regarding the estimates and assumptions required to arrive at these amounts and should be read in conjunction with the sections entitled: Prior Period Development, Asbestos and Environmental (A&E), Reinsurance Recoverable on Ceded Reinsurance, Investments, and Net Realized and Unrealized Gains (Losses).

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. At December 31, 2020, our gross unpaid loss and loss expense reserves were $67.8 billion and our net unpaid loss and loss expense reserves were $53.2 billion. 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. In connection with such structured settlements and certain reserves for unsettled claims, we carried net discounted reserves of $68 million and $74 million at December 31, 2020 and 2019, respectively.

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

	December 31, 2020			December 31, 2019		
(in millions of U.S. dollars)	Gross Losses	Reinsurance Recoverable[1]	Net Losses	Gross Losses	Reinsurance Recoverable[1]	Net Losses
Balance, beginning of year	$ 62,690	$ 14,181	$ 48,509	$ 62,960	$ 14,689	$ 48,271
Losses and loss expenses incurred	26,711	5,001	21,710	23,657	4,927	18,730
Losses and loss expenses paid	(22,053)	(4,619)	(17,434)	(23,911)	(5,438)	(18,473)
Other (including foreign exchange translation)	463	84	379	(16)	3	(19)
Balance, end of year	$ 67,811	$ 14,647	$ 53,164	$ 62,690	$ 14,181	$ 48,509

[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). Our loss reserves comprise approximately 78 percent casualty-related business, which typically encompasses long-tail risks, and other risks where a high degree of judgment is required.

The process of establishing loss reserves for property and casualty claims can be complex and is subject to considerable uncertainty as it requires the use of informed estimates and judgments based on circumstances underlying the insured losses known at the date of accrual. For example, the reserves established for high excess casualty claims, asbestos and environmental claims, claims from major catastrophic events, or for our various product lines each require different assumptions and judgments to be made. Necessary judgments are based on numerous factors and may be revised as additional experience and other data become available and are reviewed, as new or improved methods are developed, or as laws change. Hence, ultimate loss payments may differ from the estimate of the ultimate liabilities made at the balance sheet date. Changes to our previous estimates of prior period loss reserves impact the reported calendar year underwriting results adversely if our estimates increase or favorably if our estimates decrease. The potential for variation in loss reserve estimates is impacted by numerous factors. Reserve estimates for casualty lines are particularly uncertain given the lengthy reporting patterns and corresponding need for IBNR.

Case reserves for those claims reported by insureds or ceding companies to us prior to the balance sheet date and where we have sufficient information are determined by our claims personnel as appropriate based on the circumstances of the claim(s), standard claim handling practices, and professional judgment. Furthermore, for our Brandywine run-off operations and our assumed reinsurance operation, Global Reinsurance, we may adjust the case reserves as notified by the ceding company if the judgment of our respective claims department differs from that of the cedant.

With respect to IBNR reserves and those claims that have been incurred but not reported prior to the balance sheet date, there is, by definition, limited actual information to form the case reserve estimate and reliance is placed upon historical loss experience and actuarial methods to estimate the ultimate loss obligations and the corresponding amount of IBNR. IBNR reserve estimates are generally calculated by first projecting the ultimate amount of losses for a product line and subtracting paid losses and case reserves for reported claims. The judgments involved in projecting the ultimate losses may pertain to the use and interpretation of various standard actuarial reserving methods that place reliance on the extrapolation of actual historical data, loss development patterns, industry data, and other benchmarks as appropriate. The estimate of the required IBNR reserve also requires judgment by actuaries and management to reflect the impact of more contemporary and subjective factors, both qualitative and quantitative. Among some of these factors that might be considered are changes in business mix or volume, changes in ceded reinsurance structures, changes in claims handling practices, reported and projected loss trends, inflation, the legal environment, and the terms and conditions of the contracts sold to our insured parties.

Determining management's best estimate
Our recorded reserves represent management's best estimate of the provision for unpaid claims as of the balance sheet date, and establishing them involves a process that includes collaboration with various relevant parties in the company. For information on our reserving process, refer to Note 7 to the Consolidated Financial Statements.

Sensitivity to underlying assumptions
While we believe that our reserve for unpaid losses and loss expenses at December 31, 2020, is adequate, new information or emerging trends that differ from our assumptions may lead to future development of losses and loss expenses that is significantly greater or less than the recorded reserve, which could have a material effect on future operating results. As noted previously, our best estimate of required loss reserves for most portfolios is judgmentally selected for each origin year after considering the results from a number of reserving methods and is not a purely mechanical process. Therefore, it is difficult to convey, in a simple and quantitative manner, the impact that a change to a single assumption will have on our best estimate. In the examples below, we attempt to give an indication of the potential impact by isolating a single change for a specific reserving method that would be pertinent in establishing the best estimate for the product line described. We consider each of the following sensitivity analyses to represent a reasonably likely deviation in the underlying assumption.

North America Commercial P&C Insurance - Workers' Compensation
Given the long reporting and paid development patterns for workers' compensation business, the development factors used to project actual current losses to ultimate losses for our current exposure require considerable judgment that could be material to consolidated loss and loss expense reserves. Specifically, adjusting ground up ultimate losses by a one percentage point change in the tail factor (i.e., 1.04 changed to either 1.05 or 1.03) would cause a change of approximately $910 million, either positive or negative, for the projected net loss and loss expense reserves. This represents an impact of about 9.5 percent relative to recorded net loss and loss expense reserves of approximately $9.6 billion.

North America Commercial P&C Insurance – Liability
As is the case for Workers' Compensation above, given the long reporting and paid development patterns, the development factors used to project actual current losses to ultimate losses for our current exposure require considerable judgment that could be material to consolidated loss and loss expense reserves. Specifically, for our main U.S. Excess/Umbrella portfolios, a five percentage point change in the tail factor (e.g., 1.10 changed to either 1.15 or 1.05) would cause a change of approximately $546 million, either positive or negative, for the projected net loss and loss expense reserves. This represents an impact of about 19.7 percent relative to recorded net loss and loss expense reserves of approximately $2.8 billion for these portfolios.

The reserve portfolio for our Chubb Bermuda operations contains exposure to predominantly high excess liability coverage on an occurrence-first-reported basis (typically with attachment points in excess of $325 million and gross limits of up to $150 million) and D&O and other professional liability coverage on a claims-made basis (typically with attachment points in excess of $125 million and gross limits of up to $75 million). Due to the layer of exposure covered, the expected frequency for this book is very low. As a result of the low frequency/high severity nature of the book, a small difference in the actual vs. expected claim frequency, either positive or negative, could result in a material change to the projected ultimate loss if such change in claim frequency was related to a policy where close to maximum limits were deployed.

North America Personal P&C Insurance
Due to the relatively short-tailed nature of many of the coverages involved (e.g., homeowners property damage), most of the incurred losses in Personal Lines are resolved within a few years of occurrence. As shown in our loss triangle disclosure, the vast majority (approximately 95 percent) of Personal Lines net ultimate losses and allocated loss adjustment expenses are typically paid within five years of the accident date and over 80 percent within two years. Even though there are significant reserves associated with some liability exposures such as personal excess/umbrella liability, our incurred loss triangle also shows a roughly consistent pattern of only relatively minor movements in incurred estimates over time by accident year especially after twenty-four months of maturity. While the liability exposures are subject to additional uncertainties from more protracted resolution times, the main drivers of volatility in the Personal Lines business are relatively short-term in nature and relate to things like natural catastrophes, non-catastrophe weather events, man-made risks, and individual large loss volatility from other fortuitous claim events.

North America Agricultural Insurance
Approximately 59 percent of the reserves for this segment are from the crop related lines, which all have short payout patterns, with the majority of the liabilities expected to be resolved in the ensuing twelve months. Claim reserves for our Multiple Peril Crop Insurance (MPCI) product are set on a case-by-case basis and our aggregate exposure is subject to state level risk sharing formulae as well as third-party reinsurance. The majority of the development risk arises out of the accuracy of case reserve estimates and the time needed for final crop conditions to be assessed. We do not view our Agriculture reserves as substantially influenced by the general assumptions and risks underlying more typical P&C reserve estimates.

Overseas General Insurance
Certain long-tail lines, such as casualty and professional lines, are particularly susceptible to changes in loss trend and claim inflation. Heightened perceptions of tort and settlement awards around the world can increase the demand for these products as well as contributing to the uncertainty in the reserving estimates. Our reserving methods rely on loss development patterns estimated from historical data and while we attempt to adjust such factors for known changes in the current tort environment, it is possible that such factors may not entirely reflect all recent trends in tort environments. For example, when applying the reported loss development method, the lengthening of our selected loss development patterns by six months would increase reserve estimates on long-tail casualty and professional lines for accident years 2018 and prior by approximately $590 million. This represents an impact of 15.4 percent relative to recorded net loss and loss expense reserves of approximately $3.8 billion.

Global Reinsurance
At December 31, 2020, net unpaid losses and loss expenses for the Global Reinsurance segment aggregated to $1.5 billion, consisting of $772 million of case reserves and $740 million of IBNR. In comparison, at December 31, 2019, net unpaid losses and loss expenses for the Global Reinsurance segment aggregated to $1.4 billion, consisting of $769 million of case reserves and $664 million of IBNR.

For our catastrophe business, we principally estimate unpaid losses and loss expenses on an event basis by considering various sources of information, including specific loss estimates reported by our cedants, ceding company and overall industry loss estimates reported by our brokers, and our internal data regarding reinsured exposures related to the geographical location of the

event. Our internal data analysis enables us to establish catastrophe reserves for known events with more certainty at an earlier date than would be the case if we solely relied on reports from third parties to determine carried reserves.

For our casualty reinsurance business, we generally rely on ceding companies to report claims and then use that data as a key input to estimate unpaid losses and loss expenses. Due to the reliance on claims information reported by ceding companies, as well as other factors, the estimation of unpaid losses and loss expenses for assumed reinsurance includes certain risks and uncertainties that are unique relative to our direct insurance business. These include, but are not necessarily limited to, the following:

- The reported claims information could be inaccurate;
- Typically, a lag exists between the reporting of a loss event to a ceding company and its reporting to us as a reinsurance claim. The use of a broker to transmit financial information from a ceding company to us increases the reporting lag. Because most of our reinsurance business is produced by brokers, ceding companies generally first submit claim and other financial information to brokers, who then report the proportionate share of such information to each reinsurer of a particular treaty. The reporting lag generally results in a longer period of time between the date a claim is incurred and the date a claim is reported compared with direct insurance operations. Therefore, the risk of delayed recognition of loss reserve development is higher for assumed reinsurance than for direct insurance lines; and
- The historical claims data for a particular reinsurance contract can be limited relative to our insurance business in that there may be less historical information available. Further, for certain coverages or products, such as excess of loss contracts, there may be relatively few expected claims in a particular year so the actual number of claims may be susceptible to significant variability. In such cases, the actuary often relies on industry data from several recognized sources.

We mitigate the above risks in several ways. In addition to routine analytical reviews of ceding company reports to ensure reported claims information appears reasonable, we perform regular underwriting and claims audits of certain ceding companies to ensure reported claims information is accurate, complete, and timely. As appropriate, audit findings are used to adjust claims in the reserving process. We also use our knowledge of the historical development of losses from individual ceding companies to adjust the level of adequacy we believe exists in the reported ceded losses.

On occasion, there will be differences between our carried loss reserves and unearned premium reserves and the amount of loss reserves and unearned premium reserves reported by the ceding companies. This is due to the fact that we receive consistent and timely information from ceding companies only with respect to case reserves. For IBNR, we use historical experience and other statistical information, depending on the type of business, to estimate the ultimate loss. We estimate our unearned premium reserve by applying estimated earning patterns to net premiums written for each treaty based upon that treaty's coverage basis (i.e., risks attaching or losses occurring). At December 31, 2020, the case reserves, net of retrocessions, reported to us by our ceding companies were $762 million, compared with the $772 million we recorded. Our policy is to post additional case reserves in addition to the amounts reported by our cedants when our evaluation of the ultimate value of a reported claim is different than the evaluation of that claim by our cedant.

Typically, there is inherent uncertainty around the length of paid and reported development patterns, especially for certain casualty lines such as excess workers' compensation or general liability, which may take decades to fully develop. This uncertainty is accentuated by the need to supplement client development patterns with industry development patterns due to the sometimes low statistical credibility of the data. The underlying source and selection of the final development patterns can thus have a significant impact on the selected ultimate net losses and loss expenses. For example, a 20 percent shortening or lengthening of the development patterns used for U.S. long-tail lines would cause the loss reserve estimate derived by the reported Bornhuetter-Ferguson method for these lines to change by approximately $245 million. This represents an impact of 37 percent relative to recorded net loss and loss expense reserves of approximately $655 million.

Corporate

Within Corporate, we also have exposure to certain liability reinsurance lines that have been in run-off since 1994. Unpaid losses and loss expenses relating to this run-off reinsurance business resides within the Brandywine Division reported within Corporate. Most of the remaining unpaid loss and loss expense reserves for the run-off reinsurance business relate to A&E claims.

The A&E liabilities principally relate to claims arising from bodily-injury claims related to asbestos products and remediation costs associated with hazardous waste sites. The estimation of our A&E liabilities is particularly sensitive to future changes in the legal, social, and economic environment. We have not assumed any such future changes in setting the value of our A&E liabilities, which include provisions for both reported and IBNR claims.

There are many complex variables that we consider when estimating the reserves for our inventory of asbestos accounts and these variables may directly impact the predicted outcome. We believe the most significant variables relating to our A&E liabilities include the current legal environment; specific settlements that may be used as precedents to settle future claims; assumptions regarding trends with respect to claim severity and the frequency of higher severity claims; assumptions regarding the ability to allocate liability among defendants (including bankruptcy trusts) and other insurers; the ability of a claimant to bring a claim in a state in which they have no residency or exposure; the ability of a policyholder to claim the right to unaggregated coverage; whether high-level excess policies have the potential to be accessed given the policyholder's claim trends and liability situation; payments to unimpaired claimants; and, the potential liability of peripheral defendants. Based on the policies, the facts, the law, and a careful analysis of the impact that these factors will likely have on any given account, we estimate the potential liability for indemnity, policyholder defense costs, and coverage litigation expense.

The results in asbestos cases announced by other carriers or defendants may well have little or no relevance to us because coverage exposures are highly dependent upon the specific facts of individual coverage and resolution status of disputes among carriers, policyholders, and claimants.

For additional information refer to the "Asbestos and Environmental (A&E)" section and to Note 7 to the Consolidated Financial Statements.

Future policy benefits reserves
We issue contracts in our Overseas General Insurance and Life Insurance segments that are classified as long-duration. These contracts generally include accident and supplemental health products, term and whole life products, endowment products, and annuities. In accordance with GAAP, we establish reserves for contracts determined to be long-duration based on approved actuarial methods that include assumptions related to expenses, mortality, morbidity, persistency and investment yields. For traditional long-duration contracts, these assumptions also include a provision for adverse deviation (PAD), and are "locked in" at the inception of the contract, meaning we use our original assumptions throughout the life of the policy and do not subsequently modify them unless we deem the reserves to be inadequate; while for non-traditional long-duration contracts, the assumptions do not include a PAD and are unlocked at each reporting date. The future policy benefits reserves balance is regularly evaluated for a premium deficiency. If experience is less favorable than assumptions, additional liabilities may be required, resulting in a charge to policyholder benefits and claims.

Valuation of value of business acquired (VOBA), and amortization of deferred policy acquisition costs and VOBA
As part of the acquisition of businesses that sell long-duration contracts, such as life products, we established an intangible asset related to VOBA, which represented the fair value of the future profits of the in-force contracts. The valuation of VOBA at the time of acquisition is derived from similar assumptions to those used to establish the associated future policy benefits reserves. The most significant input in this calculation is the discount rate used to arrive at the present value of the net cash flows. We amortize deferred policy acquisition costs associated with long-duration contracts and VOBA (collectively policy acquisition costs) over the estimated life of the contracts, generally in proportion to premium revenue recognized based upon the same assumptions used in estimating the liability for future policy benefits. For non-traditional long-duration contracts, we amortize policy acquisition costs over the expected life of the contracts in proportion to estimates of expected gross profits. The estimated life is established at the inception of the contracts or upon acquisition and is based on current persistency assumptions. Policy acquisition costs, which consist of commissions, premium taxes, and certain underwriting costs related directly to the successful acquisition of a new or renewal insurance contract, are reviewed to determine if they are recoverable from future income, including investment income. Unrecoverable costs are expensed in the period identified.

Risk transfer
In the ordinary course of business, we both purchase (or cede) and sell (or assume) reinsurance protection. We discontinued the purchase of all finite risk reinsurance contracts, as a matter of policy, in 2002. For both ceded and assumed reinsurance, risk transfer requirements must be met in order to use reinsurance accounting, principally resulting in the recognition of cash flows under the contract as premiums and losses. If risk transfer requirements are not met, a contract is to be accounted for as a deposit, typically resulting in the recognition of cash flows under the contract through a deposit asset or liability and not as revenue or expense. To meet risk transfer requirements, a reinsurance contract must include both insurance risk, consisting of underwriting and timing risk, and a reasonable possibility of a significant loss for the assuming entity. We also apply similar risk transfer requirements to determine whether certain commercial insurance contracts should be accounted for as insurance or a deposit. Contracts that include fixed premium (i.e., premium not subject to adjustment based on loss experience under the contract) for fixed coverage generally transfer risk and do not require judgment.

Reinsurance and insurance contracts that include both significant risk sharing provisions, such as adjustments to premiums or loss coverage based on loss experience, and relatively low policy limits, as evidenced by a high proportion of maximum premium assessments to loss limits, can require considerable judgment to determine whether or not risk transfer requirements are met. For such contracts, often referred to as finite or structured products, we require that risk transfer be specifically assessed for each contract by developing expected cash flow analyses at contract inception. To support risk transfer, the cash flow analyses must demonstrate that a significant loss is reasonably possible, such as a scenario in which the ratio of the net present value of losses divided by the net present value of premiums equals or exceeds 110 percent. For purposes of cash flow analyses, we generally use a risk-free rate of return consistent with the expected average duration of loss payments. In addition, to support insurance risk, we must prove the reinsurer's risk of loss varies with that of the reinsured and/or support various scenarios under which the assuming entity can recognize a significant loss.

To ensure risk transfer requirements are routinely assessed, qualitative and quantitative risk transfer analyses and memoranda supporting risk transfer are developed by underwriters for all structured products. We have established protocols for structured products that include criteria triggering an accounting review of the contract prior to quoting. If any criterion is triggered, a contract must be reviewed by a committee established by each of our segments with reporting oversight, including peer review, from our global Structured Transaction Review Committee.

With respect to ceded reinsurance, we entered into a few multi-year excess of loss retrospectively-rated contracts, principally in 2002. These contracts primarily provided severity protection for specific product divisions. Because traditional one-year reinsurance coverage had become relatively costly, these contracts were generally entered into in order to secure a more cost-effective reinsurance program. All of these contracts transferred risk and were accounted for as reinsurance. In addition, we maintain a few aggregate excess of loss reinsurance contracts that were principally entered into prior to 2003, such as the National Indemnity Company (NICO) contracts referred to in the section entitled, "Asbestos and Environmental (A&E)". We have not purchased any other retroactive ceded reinsurance contracts since 1999.

With respect to assumed reinsurance and insurance contracts, products giving rise to judgments regarding risk transfer were primarily sold by our financial solutions business. Although we have significantly curtailed writing financial solutions business, several contracts remain in-force and principally include multi-year retrospectively-rated contracts and loss portfolio transfers. Because transfer of insurance risk is generally a primary client motivation for purchasing these products, relatively few insurance and reinsurance contracts have historically been written for which we concluded that risk transfer criteria had not been met. For certain insurance contracts that have been reported as deposits, the insured desired to self-insure a risk but was required, legally or otherwise, to purchase insurance so that claimants would be protected by a licensed insurance company in the event of non-payment from the insured.

Reinsurance recoverable

Reinsurance recoverable includes balances due to us from reinsurance companies for paid and unpaid losses and loss expenses and is presented net of a valuation allowance for uncollectible reinsurance. The valuation allowance for uncollectible reinsurance is determined based upon a review of the financial condition of the reinsurers and other factors. Ceded reinsurance contracts do not relieve our primary obligation to our policyholders. Consequently, an exposure exists with respect to reinsurance recoverable to the extent that any reinsurer is unable or unwilling to meet its obligations or disputes the liabilities assumed under the reinsurance contracts. We determine the reinsurance recoverable on unpaid losses and loss expenses using actuarial estimates as well as a determination of our ability to cede unpaid losses and loss expenses under existing reinsurance contracts.

The recognition of a reinsurance recoverable asset requires two key judgments. The first judgment involves our estimation based on the amount of gross reserves and the percentage of that amount which may be ceded to reinsurers. Ceded IBNR, which is a major component of the reinsurance recoverable on unpaid losses and loss expenses, is generally developed as part of our loss reserving process and, consequently, its estimation is subject to similar risks and uncertainties as the estimation of gross IBNR (refer to "Critical Accounting Estimates – Unpaid losses and loss expenses"). The second judgment involves our estimate of the amount of the reinsurance recoverable balance that we may ultimately be unable to recover from reinsurers due to insolvency, contractual dispute, or for other reasons. Estimated uncollectible amounts are reflected in a valuation allowance that reduces the reinsurance recoverable asset and, in turn, shareholders' equity. Changes in the valuation allowance for uncollectible reinsurance are reflected in net income.

Although the obligation of individual reinsurers to pay their reinsurance obligations is based on specific contract provisions, the collectability of such amounts requires estimation by management. The majority of the recoverable balance will not be due for collection until sometime in the future, and the duration of our recoverables may be longer than the duration of our direct exposures. Over this period of time, economic conditions and operational performance of a particular reinsurer may impact their ability to meet these obligations and while they may continue to acknowledge their contractual obligation to do so, they may not have the financial resources or willingness to fully meet their obligation to us.

To estimate the valuation allowance for uncollectible reinsurance, the reinsurance recoverable must first be determined for each reinsurer. This determination is based on a process rather than an estimate, although an element of judgment must be applied. As part of the process, ceded IBNR is allocated to reinsurance contracts because ceded IBNR is not generally calculated on a contract by contract basis. The allocations are generally based on premiums ceded under reinsurance contracts, adjusted for actual loss experience and historical relationships between gross and ceded losses. If actual premium and loss experience vary materially from historical experience, the allocation of reinsurance recoverable by reinsurer will be reviewed and may change. While such change is unlikely to result in a large percentage change in the valuation allowance for uncollectible reinsurance, it could, nevertheless, have a material effect on our net income in the period recorded.

Generally, we use a default analysis to estimate uncollectible reinsurance. The primary components of the default analysis are reinsurance recoverable balances by reinsurer, net of collateral, and forward looking default factors used to estimate the probability that the reinsurer may be unable to meet its future obligations in full. In 2020, we adopted new guidance on the accounting for expected credit losses of reinsurance recoverable. For additional information, refer to Note 1 s) to the Consolidated Financial Statements under Item 8. The definition of collateral for this purpose requires some judgment and is generally limited to assets held in a Chubb-only beneficiary trust, letters of credit, and liabilities held by us with the same legal entity for which we believe there is a right of offset. We do not currently include multi-beneficiary trusts. However, we have several reinsurers that have established multi-beneficiary trusts for which certain of our companies are beneficiaries. The determination of the default factor is principally based on the financial strength rating of the reinsurer and a corresponding default factor applicable to the financial strength rating. Default factors require considerable judgment and are determined using the current financial strength rating, or rating equivalent, of each reinsurer as well as other key considerations and assumptions. Significant considerations and assumptions include, but are not necessarily limited to, the following:

- For reinsurers that maintain a financial strength rating from a major rating agency, and for which recoverable balances are considered representative of the larger population (i.e., default probabilities are consistent with similarly rated reinsurers and payment durations conform to averages), the judgment exercised by management to determine the valuation allowance for uncollectible reinsurance of each reinsurer is typically limited because the financial rating is based on a published source and the default factor we apply is based on a historical default factor of a major rating agency applicable to the particular rating class. Default factors applied for financial ratings of AAA, AA, A, BBB, BB, B, and CCC, are 0.8 percent, 1.2 percent, 1.7 percent, 4.9 percent, 19.6 percent, 34.0 percent, and 62.2 percent, respectively. Because our model is predicated on the historical default factors of a major rating agency, we do not generally consider alternative factors. However, when a recoverable is expected to be paid in a brief period of time by a highly-rated reinsurer, such as certain property catastrophe claims, a default factor may not be applied;
- For balances recoverable from reinsurers that are both unrated by a major rating agency and for which management is unable to determine a credible rating equivalent based on a parent or affiliated company, we may determine a rating equivalent based on our analysis of the reinsurer that considers an assessment of the creditworthiness of the particular entity, industry benchmarks, or other factors as considered appropriate. We then apply the applicable default factor for that rating class. For balances recoverable from unrated reinsurers for which our ceded reserve is below a certain threshold, we generally apply a default factor of 34.0 percent;
- For balances recoverable from reinsurers that are either insolvent or under regulatory supervision, we establish a default factor and resulting valuation allowance for uncollectible reinsurance based on specific facts and circumstances surrounding each company. Upon initial notification of an insolvency, we generally recognize expense for a substantial portion of all balances outstanding, net of collateral, through a combination of write-offs of recoverable balances and increases to the valuation allowance for uncollectible reinsurance. When regulatory action is taken on a reinsurer, we generally recognize a default factor by estimating an expected recovery on all balances outstanding, net of collateral. When sufficient credible information becomes available, we adjust the valuation allowance for uncollectible reinsurance by establishing a default factor pursuant to information received; and
- For captives and other recoverables, management determines the valuation allowance for uncollectible reinsurance based on the specific facts and circumstances.

The following table summarizes reinsurance recoverables and the valuation allowance for uncollectible reinsurance for each type of recoverable balance at December 31, 2020:

(in millions of U.S. dollars)	Gross Reinsurance Recoverables on Losses and Loss Expenses	Recoverables (net of Usable Collateral)	Valuation Allowance for Uncollectible Reinsurance [1]
Type			
Reinsurers with credit ratings	**$ 12,479**	**$ 10,814**	**$ 179**
Reinsurers not rated	**290**	**154**	**57**
Reinsurers under supervision and insolvent reinsurers	**64**	**60**	**35**
Captives	**2,107**	**372**	**11**
Other - structured settlements and pools	**966**	**965**	**32**
Total	**$ 15,906**	**$ 12,365**	**$ 314**

[1] The valuation allowance for uncollectible reinsurance is based on a default analysis applied to gross reinsurance recoverables, net of approximately $3.5 billion of collateral at December 31, 2020.

At December 31, 2020, the use of different assumptions within our approach could have a material effect on the valuation allowance for uncollectible reinsurance. To the extent the creditworthiness of our reinsurers was to deteriorate due to an adverse event affecting the reinsurance industry, such as a large number of major catastrophes, actual uncollectible amounts could be significantly greater than our valuation allowance for uncollectible reinsurance. Such an event could have a material adverse effect on our financial condition, results of operations, and our liquidity. Given the various considerations used to estimate our uncollectible valuation allowance, we cannot precisely quantify the effect a specific industry event may have on the valuation allowance for uncollectible reinsurance. However, based on the composition (particularly the average credit quality) of the reinsurance recoverable balance at December 31, 2020, we estimate that a ratings downgrade of one notch for all rated reinsurers (e.g., from A to A- or A- to BBB+) could increase our valuation allowance for uncollectible reinsurance by approximately $81 million or approximately 0.5 percent of the gross reinsurance recoverable balance, assuming no other changes relevant to the calculation. While a ratings downgrade would result in an increase in our valuation allowance for uncollectible reinsurance and a charge to earnings in that period, a downgrade in and of itself does not imply that we will be unable to collect all of the ceded reinsurance recoverable from the reinsurers in question. Refer to Note 5 to the Consolidated Financial Statements for additional information.

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 and Note 13 to the Consolidated Financial Statements for information on our fair value measurements.

Assessment of investment portfolio credit losses

Each quarter, we evaluate current expected credit losses (CECL) for fixed maturity securities classified as held to maturity and expected credit losses (ECL) for fixed maturity securities classified as available for sale. Because our investment portfolio is the largest component of consolidated assets, CECL and ECL could be material to our financial condition and results of operations. Refer to Notes 1 e) and 3 to the Consolidated Financial Statements for more information.

Deferred income taxes

At December 31, 2020, our net deferred tax liability was $892 million. Our deferred tax assets and liabilities primarily result from temporary differences between the amounts recorded in our Consolidated Financial Statements and the tax basis of our assets and liabilities. We determine deferred tax assets and liabilities separately for each tax-paying component (an individual entity or group of entities that is consolidated for tax purposes) in each tax jurisdiction. The realization of deferred tax assets depends upon the existence of sufficient taxable income within the carryback or carryforward periods under the tax law in the applicable tax jurisdiction. There may be changes in tax laws in a number of countries where we transact business that impact our deferred tax assets and liabilities.

At each balance sheet date, management assesses the need to establish a valuation allowance that reduces deferred tax assets when it is more likely than not that all, or some portion, of the deferred tax assets will not be realized. The determination of the need for a valuation allowance is based on all available information including projections of future taxable income, principally derived from business plans and where appropriate available tax planning strategies. Projections of future taxable income incorporate assumptions of future business and operations that are apt to differ from actual experience. If our assumptions and estimates that resulted in our forecast of future taxable income prove to be incorrect, an additional valuation allowance could become necessary, which could have a material adverse effect on our financial condition, results of operations, and liquidity. At December 31, 2020, the valuation allowance of $83 million reflects management's assessment that it is more likely than not that a portion of the deferred tax assets will not be realized due to the inability of certain subsidiaries to generate sufficient taxable income.

Assumed reinsurance programs involving minimum benefit guarantees under variable annuity contracts
Chubb reinsures various death and living benefit guarantees associated with variable annuities issued primarily in the United States. We ceased writing this business in 2007. Guarantees which are payable on death are referred to as guaranteed minimum death benefits (GMDB). Guarantees on living benefits (GLB) consist mainly of guaranteed minimum income benefits (GMIB). For further description of this product and related accounting treatment, refer to Note 1 j) to the Consolidated Financial Statements.

Guaranteed living benefits (GLB) derivatives
Our GLB reinsurance is classified as a derivative for accounting purposes and therefore carried at fair value. Changes in fair value are reflected in Net realized gains (losses) in the Consolidated statements of operations.

Determination of GLB fair value
The fair value of GLB reinsurance is estimated using an internal valuation model, which includes current market information and estimates of policyholder behavior from the perspective of a theoretical market participant that would assume these liabilities. All of our treaties contain claim limits, which are factored into the valuation model. The fair value depends on a number of factors, including interest rates, equity markets, credit risk, current account value, market volatility, expected annuitization rates and other policyholder behavior, and changes in policyholder mortality. The 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 more timely market information. Due to the inherent uncertainties of the assumptions used in the valuation models to determine the fair value of these derivative products, actual experience may differ materially from the estimates reflected in our Consolidated Financial Statements.

We intend to hold these derivative contracts to maturity (i.e., the expiration of the underlying liabilities through lapse, annuitization, death, or expiration of the reinsurance contract). To partially offset the risk of changes in the fair value of GLB reinsurance contracts, we invest in derivative hedge instruments.

For further information on the estimates and assumptions used in determining the fair value of GLB reinsurance, refer to Note 4 to the Consolidated Financial Statements. For a sensitivity discussion of the effect of changes in interest rates, equity indices, and other assumptions on the fair value of GLBs, and the estimated resulting impact on our net income, refer to Item 7A.

Determination of GMDB benefit reserves
Management established benefit reserves based on a long-term benefit ratio (or loss ratio) calculated using assumptions reflecting management's best estimate of the future performance of the GMDB variable annuity line of business. Despite the long-term nature of the risk, the benefit ratio calculation is impacted by short-term market movements that may be judged by management to be transient. Management regularly examines both qualitative and quantitative analysis, including a review of the differential between the benefit ratio used at the most recent valuation date and the benefit ratio calculated on subsequent dates. Management regularly evaluates its estimates and uses judgment to determine the extent to which assumptions underlying the benefit ratio calculation should be adjusted. For the year ended December 31, 2020, management determined that no change to the benefit ratio was warranted.

Risk Management
We employ a strategy to manage the financial market and policyholder behavior risks embedded in the reinsurance of variable annuity (VA) guarantees. Risk management begins with underwriting a prospective client and guarantee design, with particular focus on protecting our position from policyholder options that, because of anti-selective behavior, could adversely impact our obligation.

A second layer of risk management is the structure of the reinsurance contracts. All VA guarantee reinsurance contracts include some form of annual or aggregate claim limit(s) primarily designed to reduce our exposure to severe equity market and interest rate declines (which would cause an increase in expected claims).

A third layer of risk management is the hedging strategy which looks to mitigate both long-term economic loss over time as well as dampen income statement volatility. We owned financial market instruments as part of the hedging strategy with a fair value liability of $17 million and $13 million at December 31, 2020 and 2019, respectively. The instruments are substantially collateralized on a daily basis.

We also limit the aggregate amount of variable annuity reinsurance guarantee risk we are willing to assume. The last substantive transactions were quoted in late 2007. The aggregate number of policyholders is currently decreasing through policyholder withdrawals, annuitizations, and deaths at a rate of 5 percent to 15 percent per annum.

Note that GLB claims cannot occur for any reinsured policy until it has reached the end of its "waiting period". As of December 31, 2020, 93 percent of the policies we reinsure reached the end of their "waiting periods".

Collateral
Chubb maintains collateral, including letters of credit (LOC), on behalf of most of its clients in the form of qualified assets in trust or letters of credit, typically in an amount sufficient for the client to obtain statutory reserve credit for the reinsurance. The timing of the calculation and amount of the collateral varies by client according to the particulars of the reinsurance treaty and the statutory reserve guidelines of the client's domicile. Refer to "Credit Facilities" for a discussion of the LOC related to our variable annuity program.

Goodwill impairment assessment
Goodwill, which represents the excess of acquisition cost over the estimated fair value of net assets acquired, was $15.4 billion and $15.3 billion at December 31, 2020 and 2019, respectively. Goodwill is assigned to applicable reporting units of acquired entities at the time of acquisition. Our reporting units are the same as our reportable segments. For goodwill balances by reporting units, refer to Note 6 to the Consolidated Financial Statements.

Goodwill is not amortized but is subject to a periodic evaluation for impairment at least annually, or earlier if there are any indications of possible impairment. Impairment is tested at the reporting unit level. The impairment evaluation first uses a qualitative assessment to determine whether it is more likely than not (i.e., more than a 50 percent probability) that the fair value of a reporting unit is greater than its carrying amount. If a reporting unit fails this qualitative assessment, a single quantitative analysis is used to measure and record the amount of the impairment.

In assessing the fair value of a reporting unit, we make assumptions and estimates about the profitability attributable to our reporting units, including:

- short-term and long-term growth rates; and
- estimated cost of equity and changes in long-term risk-free interest rates.

If our assumptions and estimates made in assessing the fair value of acquired entities change, we could be required to write-down the carrying value of goodwill which could be material to our results of operations in the period the charge is taken. Based on our impairment testing for 2020, we determined no impairment was required and none of our reporting units was at risk for impairment.

Consolidated Operating Results – Years Ended December 31, 2020, 2019, and 2018

(in millions of U.S. dollars, except for percentages)	2020	2019	2018	% Change 2020 vs. 2019	% Change 2019 vs. 2018
Net premiums written	**$ 33,820**	$ 32,275	$ 30,579	4.8 %	5.5 %
Net premiums written - constant dollars[1]				5.5 %	7.0 %
Net premiums earned	**33,117**	31,290	30,064	5.8 %	4.1 %
Net investment income	**3,375**	3,426	3,305	(1.5)%	3.6 %
Net realized gains (losses)	**(498)**	(530)	(652)	(6.1)%	(18.8)%
Total revenues	**35,994**	34,186	32,717	5.3 %	4.5 %
Losses and loss expenses	**21,710**	18,730	18,067	15.9 %	3.7 %
Policy benefits	**784**	740	590	5.9 %	25.5 %
Policy acquisition costs	**6,547**	6,153	5,912	6.4 %	4.1 %
Administrative expenses	**2,979**	3,030	2,886	(1.7)%	5.0 %
Interest expense	**516**	552	641	(6.4)%	(13.9)%
Other (income) expense	**(994)**	(596)	(434)	66.8 %	37.2 %
Amortization of purchased intangibles	**290**	305	339	(4.9)%	(10.2)%
Chubb integration expenses	**—**	23	59	NM	(61.7)%
Total expenses	**31,832**	28,937	28,060	10.0 %	3.1 %
Income before income tax	**4,162**	5,249	4,657	(20.7)%	12.7 %
Income tax expense	**629**	795	695	(20.8)%	14.3 %
Net income	**$ 3,533**	$ 4,454	$ 3,962	(20.7)%	12.4 %

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.

Net Premiums Written

(in millions of U.S. dollars, except for percentages)	2020	2019	2018	% Change 2020 vs. 2019	2019 vs. 2018	C$ 2020 vs. 2019
Commercial casualty	**$ 6,177**	$ 5,654	$ 5,204	9.2 %	8.7 %	9.3 %
Workers' compensation	**2,015**	2,098	2,094	(4.0)%	0.1 %	(4.0)%
Professional liability	**4,201**	3,697	3,527	13.6 %	4.8 %	14.0 %
Surety	**531**	639	635	(16.9)%	0.6 %	(14.5)%
Commercial multiple peril [1]	**1,047**	983	910	6.6 %	8.0 %	6.6 %
Property and other short-tail lines	**5,231**	4,468	4,016	17.1 %	11.3 %	18.3 %
Total Commercial P&C	**19,202**	17,539	16,386	9.5 %	7.0 %	10.0 %
Agriculture	**1,846**	1,810	1,577	2.0 %	14.8 %	2.0 %
Personal automobile	**1,550**	1,786	1,695	(13.2)%	5.4 %	(10.0)%
Personal homeowners	**3,627**	3,513	3,391	3.2 %	3.6 %	3.5 %
Personal other	**1,656**	1,514	1,508	9.4 %	0.3 %	9.8 %
Total Personal lines	**6,833**	6,813	6,594	0.3 %	3.3 %	1.5 %
Total Property and Casualty lines	**27,881**	26,162	24,557	6.6 %	6.5 %	7.2 %
Global A&H lines [2]	**3,859**	4,315	4,277	(10.6)%	0.9 %	(9.7)%
Reinsurance lines	**731**	649	671	12.6 %	(3.2)%	12.1 %
Life	**1,349**	1,149	1,074	17.4 %	7.0 %	18.4 %
Total consolidated	**$ 33,820**	$ 32,275	$ 30,579	4.8 %	5.5 %	5.5 %

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 in 2020 principally reflects positive growth in commercial P&C lines globally, partially offset by negative growth in consumer P&C lines primarily from outside North America. The increase in net premiums written principally reflected new business, positive rate increases and higher renewal retention. This growth was tempered by the adverse impact of the economic contraction resulting from the COVID-19 pandemic, principally in consumer P&C lines.

- The growth in commercial casualty was due to new business, positive rate increases and growth in North America, Asia and Europe, partially offset by the adverse impact of the COVID-19 pandemic, including $58 million of exposure adjustments on in-force policies which depressed growth by 1.1 percentage points.
- Workers' compensation was adversely impacted by market conditions and by the adverse impact of the economic contraction resulting from the COVID-19 pandemic. The decrease included $121 million of exposure adjustments on in-force policies which depressed growth by 5.8 percentage points.
- The increase in professional liability was due to new business and positive rate increases primarily in North America, Asia and Europe.
- Surety decreased in North America and Latin America due to market conditions and the adverse impact of the economic contraction resulting from the COVID-19 pandemic.
- Commercial multiple peril increased due to strong renewal retention and positive rate increases in North America. The increase was partially offset by the adverse impact of the economic contraction resulting from the COVID-19 pandemic.
- Property and other short-tail lines increased due to new business and positive rate increases primarily in North America and Europe.
- Personal lines increased primarily due to positive rate increases and strong renewal retention in homeowners business in North America, as well as growth in Europe. In addition, North America benefited from the favorable year-over-year impact of reinstatement premiums. The increase was partially offset by the impact of the COVID-19 pandemic, which caused declines in automobile business in Latin America and North America.
- Global A&H lines decreased in all regions, principally from less travel volume due to the COVID-19 pandemic.
- The increase in Life was primarily driven by growth in Latin America, principally driven by our expanded presence in Chile, and in the Asian international life operations.

For additional information on net premiums written, refer to the segment results discussions.

Net Premiums Earned

Net premiums earned for short-duration contracts, typically P&C contracts, generally reflect the portion of net premiums written that were recorded as revenues for the period as the exposure periods expire. Net premiums earned for long-duration contracts, typically traditional life contracts, generally are recognized as earned when due from policyholders. Net premiums earned increased $1.8 billion, or $2.0 billion on a constant-dollar basis in 2020, comprising 8.9 percent positive growth in commercial P&C lines and 2.5 percent positive growth in consumer lines on a constant-dollar basis.

Catastrophe Losses and Prior Period Development

Catastrophe losses exclude reinstatement premiums which 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. Prior period development is net of related adjustments which typically relate 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.

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. The tables below represent catastrophe loss estimates for events that occurred in the related calendar year only. Changes in catastrophe loss estimates in the current calendar year that relate to loss events that occurred in previous calendar years are considered prior period development and are excluded from the tables below.

	Catastrophe Loss Charge by Event For Full Year 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	Total excluding RIPs	RIPs collected (expensed)	Total including RIPs
Net losses									
COVID-19	**$ 925**	**$ —**	**$ —**	**$ 421**	**$ 10**	**$ 24**	**$ 1,380**	**$ (16)**	**$ 1,396**
U.S. hurricanes/tropical storms	**429**	**132**	**1**	**79**	**86**	**—**	**727**	**7**	**720**
U.S. flooding, hail, tornadoes, and wind events	**295**	**191**	**25**	**9**	**11**	**—**	**531**	**(3)**	**534**
U.S. wildfires	**61**	**162**	**1**	**5**	**1**	**—**	**230**	**—**	**230**
Civil unrest	**111**	**2**	**—**	**17**	**—**	**—**	**130**	**—**	**130**
International weather-related events	**3**	**6**	**—**	**67**	**15**	**—**	**91**	**2**	**89**
Midwest derecho	**37**	**38**	**8**	**—**	**1**	**—**	**84**	**—**	**84**
Australia storms	**—**	**—**	**—**	**66**	**—**	**—**	**66**	**—**	**66**
Other	**7**	**2**	**—**	**26**	**(1)**	**—**	**34**	**—**	**34**
Total	**$ 1,868**	**$ 533**	**$ 35**	**$ 690**	**$ 123**	**$ 24**	**$ 3,273**		
RIPs collected (expensed)	**(3)**	**(1)**	**(1)**	**(15)**	**10**	**—**		**(10)**	
Total before income tax	**$ 1,871**	**$ 534**	**$ 36**	**$ 705**	**$ 113**	**$ 24**			**$ 3,283**
Income tax benefit									**506**
Total after income tax									**$ 2,777**

(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	Total excluding RIPs	RIPs collected (expensed)	Total including RIPs
	Catastrophe Loss Charge by Event For Full Year 2019							
Net losses								
U.S. flooding, hail, tornadoes, and wind events	$ 220	$ 202	$ 7	$ —	$ 9	$ 438	$ —	$ 438
Tornado in Dallas, Texas	55	145	—	—	2	202	(11)	213
Winter-related storms	74	110	1	6	2	193	—	193
Hurricane Dorian	26	30	—	10	8	74	1	73
California wildfires	11	45	—	—	—	56	—	56
Typhoon Hagibis	—	—	—	20	17	37	1	36
Civil unrest in Hong Kong and Chile	—	—	—	33	—	33	(4)	37
International weather-related events	1	2	—	30	—	33	—	33
Other	34	9	—	53	13	109	1	108
Total	$ 421	$ 543	$ 8	$ 152	$ 51	$ 1,175		
RIPs collected (expensed)	—	(11)	—	(4)	3		(12)	
Total before income tax	$ 421	$ 554	$ 8	$ 156	$ 48			$ 1,187
Income tax benefit								221
Total after income tax								$ 966

(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	Total excluding RIPs	RIPs collected (expensed)	Total including RIPs
	Catastrophe Loss Charge by Event For Full Year 2018							
Net losses								
Hurricane Michael	$ 187	$ 16	$ 6	$ 6	$ 85	$ 300	$ 15	$ 285
U.S. flooding, hail, tornadoes, and wind events [1]	162	157	7	—	6	332	—	332
Northeast winter storms	43	117	—	—	5	165	—	165
California wildfires	51	61	1	1	58	172	(23)	195
Hurricane Florence	109	29	7	15	14	174	1	173
California mudslides	4	120	—	1	—	125	—	125
Colorado rain and hail storm	7	65	—	1	—	73	—	73
International weather-related events	—	—	—	182	31	213	2	211
Other	16	46	—	—	6	68	1	67
Total	$ 579	$ 611	$ 21	$ 206	$ 205	$ 1,622		
RIPs collected (expensed)	—	(26)	—	—	22		(4)	
Total before income tax	$ 579	$ 637	$ 21	$ 206	$ 183			$ 1,626
Income tax benefit								272
Total after income tax								$ 1,354

[1] This grouping comprised of 34 separate events, principally impacting the southern and northeastern regions of the U.S.

Prior Period Development

(in millions of U.S. dollars)	2020	2019	2018
Favorable prior period development	**$ 395**	$ 792	$ 896

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 prior period development for the year ended 2020 was $395 million, which included adverse development of $259 million for U.S. child molestation claims, predominately reviver statute-related, and $106 million adverse development related to legacy asbestos and environmental liabilities. The remaining favorable development of $760 million principally comprises 89 percent long-tail lines, principally from accident years 2016 and prior, and 11 percent short-tail lines.

Pre-tax net favorable prior period development for the year ended 2019 was $792 million, which included favorable development of $80 million in our crop insurance business and adverse development of $116 million related to legacy run-off exposures, principally asbestos and environmental liabilities. The remaining favorable development of $828 million comprised 92 percent long-tail lines, principally from accident years 2015 and prior, and 8 percent short-tail lines.

Refer to the Prior Period Development section in Note 7 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, the loss and loss expense ratio, the policy acquisition cost ratio, and the administrative expense ratio. We calculate these ratios by dividing the respective expense amounts by net premiums earned. We do not calculate these ratios for the Life Insurance segment as we do not use these measures to monitor or manage that segment. The P&C combined ratio is determined by adding the loss and loss expense ratio, the policy acquisition cost ratio, and the administrative expense ratio. A P&C combined ratio under 100 percent indicates underwriting income, and a combined ratio exceeding 100 percent indicates underwriting loss.

	2020	2019	2018
Loss and loss expense ratio			
CAY loss ratio excluding catastrophe losses	**59.2 %**	60.8 %	59.6 %
Catastrophe losses	**10.6 %**	4.1 %	5.8 %
Favorable prior period development	**(1.3)%**	(2.8)%	(3.3)%
Loss and loss expense ratio	**68.5 %**	62.1 %	62.1 %
Policy acquisition cost ratio	**18.9 %**	19.1 %	19.2 %
Administrative expense ratio	**8.7 %**	9.4 %	9.3 %
P&C Combined ratio	**96.1 %**	90.6 %	90.6 %

The loss and loss expense ratio increased 6.4 percentage points in 2020 principally due to higher catastrophe losses and lower favorable prior period development.

The CAY loss ratio excluding catastrophe losses decreased 1.6 percentage points in 2020 principally due to a decrease in the underlying loss ratio reflecting earned rate increases exceeding loss cost trends, better underlying claims experience, and a more average crop loss year in 2020.

Policy acquisition costs consist of commissions, premium taxes, and certain underwriting costs directly related to the successful acquisition of a new or renewal insurance contract. The policy acquisition cost ratio decreased 0.2 percentage points in 2020 due to a change in the mix of business, including less premiums earned from A&H lines that have a lower acquisition cost ratio, reflecting the impact of the COVID-19 pandemic.

The administrative expense ratio decreased 0.7 percentage points in 2020 primarily due to lower business expenses from continued expense management control, including during the COVID-19 pandemic, lower employee benefit-related expenses 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.

Policy benefits were $784 million, $740 million and $590 million in 2020, 2019 and 2018, respectively, which included separate account liabilities (gains) losses of $58 million, $44 million and $(38) 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 $726 million in 2020 compared with $696 million, principally from new business from our expanded presence in Chile and growth in Asia.

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 – Years Ended December 31, 2020, 2019, and 2018

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. In addition, the results of our run-off Brandywine business, including all run-off asbestos and environmental (A&E) exposures, and the results of Westchester specialty operations for 1996 and prior years are presented within Corporate.

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).

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$14,474**	$13,375	$12,485	8.2 %	7.1 %
Net premiums earned	**13,964**	12,922	12,402	8.1 %	4.2 %
Losses and loss expenses	**10,129**	8,206	8,000	23.4 %	2.6 %
Policy acquisition costs	**1,942**	1,831	1,829	6.1 %	0.2 %
Administrative expenses	**1,006**	1,028	966	(2.2)%	6.4 %
Underwriting income	**887**	1,857	1,607	(52.2)%	15.5 %
Net investment income	**2,061**	2,109	2,061	(2.3)%	2.3 %
Other (income) expense	**23**	24	3	(4.2)%	NM
Segment income	**$ 2,925**	$ 3,942	$ 3,665	(25.8)%	7.5 %
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**64.2 %**	65.3 %	64.9 %	(1.1) pts	0.4 pts
Catastrophe losses	**13.4 %**	3.3 %	4.7 %	10.1 pts	(1.4) pts
Prior period development	**(5.1)%**	(5.1)%	(5.1)%	— pts	— pts
Loss and loss expense ratio	**72.5 %**	63.5 %	64.5 %	9.0 pts	(1.0) pt
Policy acquisition cost ratio	**14.0 %**	14.2 %	14.7 %	(0.2) pts	(0.5) pts
Administrative expense ratio	**7.2 %**	7.9 %	7.8 %	(0.7) pts	0.1 pts
Combined ratio	**93.7 %**	85.6 %	87.0 %	8.1 pts	(1.4) pts

NM – not meaningful

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	2020	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 1,868**	$ 421	$ 579
Favorable prior period development	**$ 702**	$ 649	$ 610

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

Premiums

Net premiums written increased $1,099 million, or 8.2 percent in 2020, comprising positive growth of 9.6 percent in commercial P&C lines and negative growth of 13.8 percent in consumer lines. The growth in commercial P&C lines reflects positive rate increases, strong renewal retention and new business written across a number of retail and wholesale lines, including property, financial lines, excess casualty, large risk casualty, and commercial multiple peril. Net premiums written in 2020 was depressed by economic contraction resulting from the COVID-19 pandemic including $160 million of exposure adjustments on in-force policies, and lower renewal exposures and new business market limitations that impacted several lines of business, including A&H, surety, entertainment, hospitality, retail, and construction.

Net premiums earned increased $1,042 million, or 8.1 percent in 2020, due to the growth in net premiums written described above. The increase in net premiums earned was adversely impacted by the COVID-19 pandemic, including $154 million of exposure adjustments on in-force policies in 2020.

Combined Ratio

The loss and loss expense ratio increased 9.0 percentage points in 2020 due principally to higher catastrophe losses, including losses related to COVID-19 pandemic claims. The CAY loss ratio excluding catastrophe losses decreased 1.1 percentage points in 2020 primarily due to margin improvements coming from earned rate exceeding loss cost trends.

The administrative expense ratio decreased 0.7 percentage points in 2020 primarily due to lower business expenses from continued expense management control, including during the COVID-19 pandemic, lower employee benefit-related expenses, and the favorable impact of higher net premiums earned.

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)	2020	2019	2018	% Change 2020 vs. 2019	% Change 2019 vs. 2018
Net premiums written	**$4,920**	$4,787	$4,674	2.8 %	2.4 %
Net premiums earned	**4,866**	4,694	4,593	3.7 %	2.2 %
Losses and loss expenses	**3,187**	3,043	3,229	4.7 %	(5.8)%
Policy acquisition costs	**974**	948	939	2.7 %	1.0 %
Administrative expenses	**270**	286	269	(5.4)%	6.0 %
Underwriting income	**435**	417	156	4.6 %	167.2 %
Net investment income	**260**	258	236	0.5 %	9.2 %
Other (income) expense	**5**	3	1	75.8 %	117.1 %
Amortization of purchased intangibles	**11**	12	13	(5.0)%	(11.1)%
Segment income	**$ 679**	$ 660	$ 378	2.8 %	74.7 %
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**53.1 %**	55.1 %	55.8 %	(2.0) pts	(0.7) pts
Catastrophe losses	**11.0 %**	11.6 %	13.6 %	(0.6) pts	(2.0) pts
Prior period development	**1.4 %**	(1.9)%	0.9 %	3.3 pts	(2.8) pts
Loss and loss expense ratio	**65.5 %**	64.8 %	70.3 %	0.7 pts	(5.5) pts
Policy acquisition cost ratio	**20.0 %**	20.2 %	20.4 %	(0.2) pts	(0.2) pts
Administrative expense ratio	**5.6 %**	6.1 %	5.9 %	(0.5) pts	0.2 pts
Combined ratio	**91.1 %**	91.1 %	96.6 %	— pts	(5.5) pts

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	2020	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 533**	$ 543	$ 611
Favorable (unfavorable) prior period development	**$ (63)**	$ 95	$ (41)

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

Premiums

Net premiums written increased $133 million, or 2.8 percent for 2020, primarily due to rate increases and strong account retention across most lines. In addition, net premiums written also increased due to the favorable year-over-year impact of reinstatement premiums of $24 million. Growth was partially offset by $29 million in lower automobile premiums as a result of reduced exposures related to the conditions caused by the COVID-19 pandemic.

Net premiums earned increased $172 million, or 3.7 percent for 2020, reflecting the growth in net premiums written described above.

Combined Ratio
The loss and loss expense ratio increased 0.7 percentage points in 2020, primarily due to unfavorable prior period development in the current year compared to favorable prior period development in the prior year. The CAY loss ratio excluding catastrophe losses decreased 2.0 percentage points in 2020 due to better underlying claims experience reflecting indirect COVID-19 benefits and lower than expected claims frequency of weather and water losses in our homeowners line.

The administrative expense ratio decreased 0.5 percentage points in 2020 primarily due to lower employee benefit-related expenses and lower business expenses from continued expense management control, including during the COVID-19 pandemic, partially offset by normal inflationary increases.

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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$1,846**	$1,810	$1,577	2.0 %	14.8 %
Net premiums earned	**1,822**	1,795	1,569	1.5 %	14.4 %
Losses and loss expenses	**1,544**	1,616	1,114	(4.5)%	45.1 %
Policy acquisition costs	**123**	84	79	45.7 %	6.8 %
Administrative expenses	**9**	6	(9)	67.2 %	NM
Underwriting income	**146**	89	385	65.3 %	(77.0)%
Net investment income	**30**	30	28	—	5.0 %
Other (income) expense	**1**	1	2	—	(33.6)%
Amortization of purchased intangibles	**27**	28	28	(2.1)%	(2.0)%
Segment income	**$ 148**	$ 90	$ 383	65.1 %	(76.6)%
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**83.7 %**	93.5 %	76.7 %	(9.8) pts	16.8 pts
Catastrophe losses	**2.0 %**	0.5 %	1.3 %	1.5 pts	(0.8) pts
Prior period development	**(1.0)%**	(3.9)%	(7.0)%	2.9 pts	3.1 pts
Loss and loss expense ratio	**84.7 %**	90.1 %	71.0 %	(5.4) pts	19.1 pts
Policy acquisition cost ratio	**6.8 %**	4.7 %	5.0 %	2.1 pts	(0.3) pts
Administrative expense ratio	**0.5 %**	0.3 %	(0.5)%	0.2 pts	0.8 pts
Combined ratio	**92.0 %**	95.1 %	75.5 %	(3.1) pts	19.6 pts

NM – not meaningful

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	**2020**	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 35**	$ 8	$ 21
Favorable prior period development	**$ 10**	$ 80	$ 110

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

For 2020, prior period development included $19 million of favorable incurred losses, partially offset by $6 million of higher acquisition costs due to lower than expected MPCI losses for the 2019 crop year and a $3 million decrease in net premiums earned related to the MPCI profit and loss calculation formula. For 2019, prior period development included $103 million of favorable incurred losses and $13 million of lower acquisition costs due to lower than expected MPCI losses for the 2018 crop year, partially offset by a $36 million decrease in net premiums earned related to the MPCI profit and loss calculation formula.

Premiums

Net premiums written increased $36 million, or 2.0 percent in 2020, primarily due to growth in our Chubb Agribusiness unit, principally farm and specialty P&C, partly offset by a decrease in MPCI premiums. Net premiums earned increased $27 million, or 1.5 percent in 2020 reflecting the growth in net premiums written described above.

Combined Ratio

The loss and loss expense ratio decreased 5.4 percentage points in 2020, reflecting a more average crop loss year in 2020. In addition, the current year had lower underlying losses in our Chubb Agribusiness unit, partially offset by lower favorable prior period development. The CAY loss ratio excluding catastrophe losses decreased 9.8 percentage points in 2020 reflecting the factors described above.

The policy acquisition cost ratio increased 2.1 percentage points in 2020, primarily due to higher agent profit sharing commission in the current year as a result of higher underwriting margin.

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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$9,335**	$9,262	$8,902	0.8 %	4.0 %
Net premiums written - constant dollars				2.9 %	8.4 %
Net premiums earned	**9,285**	8,882	8,612	4.5 %	3.1 %
Losses and loss expenses	**5,255**	4,606	4,429	14.1 %	4.0 %
Policy acquisition costs	**2,568**	2,501	2,346	2.7 %	6.6 %
Administrative expenses	**1,034**	1,033	1,014	0.1 %	1.9 %
Underwriting income	**428**	742	823	(42.4)%	(9.8)%
Net investment income	**534**	588	622	(9.2)%	(5.3)%
Other (income) expense	**13**	12	3	4.5 %	NM
Amortization of purchased intangibles	**45**	45	41	—	8.3 %
Segment income	**$ 904**	$1,273	$1,401	(29.0)%	(9.2)%
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**50.7 %**	51.2 %	51.5 %	(0.5) pts	(0.3) pts
Catastrophe losses	**7.5 %**	1.8 %	2.4 %	5.7 pts	(0.6) pts
Prior period development	**(1.6)%**	(1.1)%	(2.5)%	(0.5) pts	1.4 pts
Loss and loss expense ratio	**56.6 %**	51.9 %	51.4 %	4.7 pts	0.5 pts
Policy acquisition cost ratio	**27.7 %**	28.1 %	27.2 %	(0.4) pts	0.9 pts
Administrative expense ratio	**11.1 %**	11.6 %	11.8 %	(0.5) pts	(0.2) pts
Combined ratio	**95.4 %**	91.6 %	90.4 %	3.8 pts	1.2 pts

NM – not meaningful

Catastrophe Losses and Prior Period Development

(in millions of U.S. dollars)	2020	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 690**	$ 152	$ 206
Favorable prior period development	**$ 150**	$ 92	$ 212

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for *detail on prior period development.*

Net Premiums Written by Region

					% Change		
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	C$ 2019	2020 vs. 2019	C$ 2020 vs. 2019	2019 vs. 2018
Region							
Europe	**$ 4,099**	$ 3,631	$ 3,508	$ 3,655	12.9 %	12.1 %	3.5 %
Latin America	**1,928**	2,277	2,181	2,066	(15.3)%	(6.7)%	4.4 %
Asia	**2,965**	3,021	2,884	3,022	(1.9)%	(1.9)%	4.7 %
Other [1]	**343**	333	329	329	3.2 %	4.2 %	1.1 %
Net premiums written	**$ 9,335**	$ 9,262	$ 8,902	$ 9,072	0.8 %	2.9 %	4.0 %

	2020 % of Total	*2019* % of Total	*2018* % of Total
Region			
Europe	**43 %**	38 %	39 %
Latin America	**21 %**	25 %	25 %
Asia	**32 %**	33 %	32 %
Other [1]	**4 %**	4 %	4 %
Net premiums written	**100 %**	100 %	100 %

[1] Comprises Combined International, Eurasia and Africa region, and other international.

Premiums

Net premiums written increased $73 million in 2020, or $263 million on a constant-dollar basis, reflecting growth in commercial P&C lines of 10.8 percent across all regions resulting from new business, retention, and positive rate increases, partially offset by a decline in consumer lines of 6.4 percent. Net premiums written in 2020 were depressed by economic contraction resulting from the COVID-19 pandemic including $24 million of exposure adjustments on in-force policies, and lower premiums in several lines, mainly in consumer lines in Latin America, primarily automobile, and A&H in Asia, resulting from less travel volume and lower exposures.

Net premiums earned increased $403 million in 2020, or $575 million on a constant-dollar basis, reflecting the increase in net premiums written as described above and in 2019.

Combined Ratio

The loss and loss expense ratio increased 4.7 percentage points in 2020 due to higher catastrophe losses, primarily related to the COVID-19 pandemic. The CAY loss ratio excluding catastrophe losses decreased 0.5 percentage points in 2020 primarily due to a decrease in the underlying loss ratio from earned rate changes modestly above loss cost trends and a benefit from lower current accident year losses resulting from a decrease in exposures due to the COVID-19 pandemic, partially offset by lower premiums earned from A&H lines in Latin America and Asia, which have a lower loss ratio.

The policy acquisition cost ratio decreased 0.4 percentage points in 2020 primarily due to a change in the mix of business, including less premiums earned from A&H lines that have a lower acquisition cost ratio, reflecting the impact of the COVID-19 pandemic.

The administrative expense ratio decreased 0.5 percentage points in 2020 primarily due to lower business expenses from continued expense management control, including during the COVID-19 pandemic, and the favorable impact of higher net premiums earned in the current year.

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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$ 731**	$ 649	$ 671	12.6 %	(3.2)%
Net premiums written - constant dollars				12.1 %	(1.7)%
Net premiums earned	**698**	654	670	6.7 %	(2.3)%
Losses and loss expenses	**435**	352	479	23.5 %	(26.5)%
Policy acquisition costs	**174**	169	162	3.0 %	4.2 %
Administrative expenses	**37**	35	41	5.2 %	(12.7)%
Underwriting income (loss)	**52**	98	(12)	(46.8)%	NM
Net investment income	**307**	279	289	10.1 %	(3.7)%
Other (income) expense	**2**	1	—	NM	NM
Segment income	**$ 357**	$ 376	$ 277	(5.0)%	35.7 %
Loss and loss expense ratio:					
CAY loss ratio excluding catastrophe losses	**49.1 %**	50.6 %	50.5 %	(1.5) pts	0.1 pts
Catastrophe losses	**17.0 %**	7.6 %	29.2 %	9.4 pts	(21.6) pts
Prior period development	**(3.8)%**	(4.3)%	(8.1)%	0.5 pts	3.8 pts
Loss and loss expense ratio	**62.3 %**	53.9 %	71.6 %	8.4 pts	(17.7) pts
Policy acquisition cost ratio	**24.9 %**	25.7 %	24.2 %	(0.8) pts	1.5 pts
Administrative expense ratio	**5.3 %**	5.4 %	6.0 %	(0.1) pts	(0.6) pts
Combined ratio	**92.5 %**	85.0 %	101.8 %	7.5 pts	(16.8) pts

NM – not meaningful

Catastrophe Losses and Prior Period Development

(in millions of U.S dollars)	**2020**	2019	2018
Catastrophe losses (excludes reinstatement premiums)	**$ 123**	$ 51	$ 205
Favorable prior period development	**$ 29**	$ 29	$ 50

Refer to the tables on pages 50 - 51 for detail of catastrophe losses and Note 7 to the Consolidated Financial Statements for detail on prior period development.

Premiums
Net premiums written increased $82 million in 2020 primarily from new business in casualty lines, rate increases in property catastrophe lines and favorable premium adjustments. Net premiums earned increased $44 million in 2020 reflecting the increase in net premiums written described above.

Combined Ratio
The loss and loss expense ratio increased 8.4 percentage points in 2020 primarily due to higher catastrophe losses.

The CAY loss ratio excluding catastrophe losses decreased 1.5 percentage points in 2020 primarily from a shift in mix of business towards catastrophe lines which have a lower loss ratio.

The policy acquisition cost ratio decreased 0.8 percentage points in 2020 primarily due to a shift in mix of business towards lines which have lower acquisition costs and favorable expense adjustments on prior period development.

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.

				% Change	
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	2019 vs. 2018
Net premiums written	**$ 2,514**	$ 2,392	$ 2,270	5.1 %	5.3 %
Net premiums written - constant dollars				5.6 %	6.4 %
Net premiums earned	**2,482**	2,343	2,218	5.9 %	5.6 %
Losses and loss expenses	**724**	757	766	(4.4)%	(1.1)%
Policy benefits	**726**	696	628	4.3 %	10.8 %
Policy acquisition costs	**766**	620	557	23.6 %	11.2 %
Administrative expenses	**320**	323	310	(1.0)%	4.5 %
Net investment income	**385**	373	341	3.3 %	9.2 %
Life Insurance underwriting income	**331**	320	298	3.6 %	6.9 %
Other (income) expense	**(74)**	(48)	(12)	53.1 %	NM
Amortization of purchased intangibles	**4**	2	2	100.0 %	—
Segment income	**$ 401**	$ 366	$ 308	9.8 %	18.6 %

NM – not meaningful

Premiums
Net premiums written increased $122 million in 2020, or $134 million on a constant-dollar basis, primarily reflecting growth in our international life operations of 23.4 percent, principally driven by our expanded presence in Chile and growth in Asia, partially offset by a decline in our North America Combined Insurance business of 6.1 percent.

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

				% Change		
(in millions of U.S. dollars, except for percentages)	**2020**	2019	2018	2020 vs. 2019	C$ 2020 vs. 2019	2019 vs. 2018
Deposits collected on universal life and investment contracts	**$ 1,559**	$ 1,463	$ 1,538	6.5 %	3.7 %	(4.9)%

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 $96 million, or $56 million on a constant-dollar basis, in 2020, due to growth in Taiwan that more than offset the declines in other Asian markets, principally Hong Kong and Korea, as a result of competitive market conditions and the impact of the COVID-19 pandemic.

Life Insurance underwriting income and Segment income
Life Insurance underwriting income increased $11 million in 2020, primarily due to a favorable reserve development in the current year which more than offset COVID-19 related losses of $24 million. Segment income increased $35 million primarily due to higher life insurance underwriting income and $26 million of higher other income, principally due to our share of net income from our investment in Huatai Life, our partially-owned life 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)	2020	2019	2018	% Change 2020 vs. 2019	% Change 2019 vs. 2018
Losses and loss expenses	**$ 435**	$ 158	$ 53	176.4 %	203.0 %
Administrative expenses	**303**	319	295	(5.0)%	8.1 %
Underwriting loss	**738**	477	348	54.8 %	36.6 %
Net investment income (loss)	**(87)**	(125)	(209)	(30.8)%	(40.5)%
Interest expense	**516**	552	641	(6.4)%	(13.9)%
Net realized gains (losses)	**(499)**	(522)	(649)	(4.6)%	(19.7)%
Other (income) expense	**(791)**	(459)	(406)	72.7 %	12.6 %
Amortization of purchased intangibles	**203**	218	255	(6.9)%	(14.3)%
Chubb integration expenses	**—**	23	59	NM	(61.7)%
Income tax expense	**629**	795	695	(20.8)%	14.4 %
Net loss	**$ (1,881)**	$ (2,253)	$ (2,450)	(16.5)%	(8.1)%

NM - not meaningful

Losses and loss expenses were primarily from adverse development relating to our Brandywine asbestos and environmental exposures, non-A&E run-off casualty exposure, including workers' compensation, and unallocated loss adjustment expenses of the A&E claims operations. Losses and loss expenses in 2020 included unfavorable prior period development of $254 million for U.S. child molestation claims, predominantly reviver statute-related. Refer to Note 7 of the Consolidated Financial Statements for further information.

Administrative expenses decreased $16 million in 2020, primarily due to lower employee benefit-related expenses, and lower travel-related costs relating to the COVID-19 pandemic.

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. 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):

	Year Ended December 31							
	2020			2019			2018
(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	Net Realized Gains (Losses)
Fixed maturities	**$ (281)**	**$ 2,604**	**$ 2,323**	$ (31)	$ 3,738	$ 3,707	$ (302)
Fixed income and equity derivatives	**81**	**—**	**81**	(435)	—	(435)	(75)
Public equity							
Sales	**455**	**—**	**455**	58	—	58	70
Mark-to-market	**131**	**—**	**131**	46	—	46	(129)
Private equity (less than 3 percent ownership)							
Sales	**—**	**—**	**—**	(5)	—	(5)	121
Mark-to-market	**(32)**	**—**	**(32)**	(15)	—	(15)	(126)
Total investment portfolio	**354**	**2,604**	**2,958**	(382)	3,738	3,356	(441)
Variable annuity reinsurance derivative transactions, net of applicable hedges	**(310)**	**—**	**(310)**	(142)	—	(142)	(252)
Other derivatives	**1**	**—**	**1**	(8)	—	(8)	(3)
Foreign exchange	**(483)**	**306**	**(177)**	7	13	20	131
Other [1]	**(60)**	**(244)**	**(304)**	(5)	(79)	(84)	(87)
Net gains (losses), pre-tax	**$ (498)**	**$ 2,666**	**$ 2,168**	$ (530)	$ 3,672	$ 3,142	$ (652)

[1] Net unrealized gains (losses) includes our postretirement programs of $(232) million, $(76) million, and $(321) million for the years ended December 31, 2020, 2019, and 2018, respectively.

The $2,958 million gain in our investment portfolio was principally a result of narrowing of credit spreads in our corporate bond portfolio and a decline in interest rates, partially offset by $170 million of impairments for securities we intended to sell, and securities written to market entering default.

The realized losses relating to the variable annuity reinsurance derivative transactions in 2020 and 2019 reflected an increase in the fair value of GLB liabilities due to lower interest rates and changes made to our valuation model relating to policyholder behavior, partially offset by higher global equity markets. Included in the realized loss are derivative instruments that decrease in fair value when the S&P 500 index increases. During the years ended December 31, 2020 and 2019, we experienced realized losses of $108 million and $138 million respectively, related to these derivative instruments.

Effective income tax rate

Our effective income tax rate was 15.1 percent in both 2020 and 2019 and 14.9 percent in 2018. 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 income tax rate in 2020 was impacted by the higher level of catastrophe losses, principally COVID-19, and lower realized losses compared to the prior year.

The 2017 Tax Cuts and Jobs Act (2017 Tax Act) included provisions for Global Intangible Low-Taxed Income (GILTI) under which taxes may be imposed on income of U.S.-owned foreign subsidiaries and for a Base Erosion and Anti-Abuse Tax (BEAT) under which our U.S. companies could be subject to additional tax as a result, among other things, of certain payments to affiliated non-U.S. companies. There remain substantial uncertainties in the interpretation of GILTI and BEAT and portions of the formal guidance issued to date are still in part in proposed form. Finalization of the proposed guidance, and changes to the interpretations and assumptions related to these provisions may impact amounts recorded with respect to the international provisions of the 2017 Tax Act, which may be material in the period the adjustment is recorded. Refer to Note 8 to the Consolidated Financial Statements for additional information.

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:

For the Year Ended December 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	$ 10,129	$ 3,187	$ 1,544	$ 5,255	$ 435	$ 435	$ 20,985
Catastrophe losses and related adjustments								
Catastrophe losses, net of related adjustments		(1,871)	(534)	(36)	(705)	(113)	—	(3,259)
Reinstatement premiums collected (expensed) on catastrophe losses		(3)	(1)	(1)	(15)	10	—	(10)
Catastrophe losses, gross of related adjustments		(1,868)	(533)	(35)	(690)	(123)	—	(3,249)
PPD and related adjustments								
PPD, net of related adjustments - favorable (unfavorable)		702	(63)	10	150	29	(433)	395
Net premiums earned adjustments on PPD - unfavorable (favorable)		32	—	3	—	—	—	35
Expense adjustments - unfavorable (favorable)		(1)	—	6	—	(2)	—	3
PPD reinstatement premiums - unfavorable (favorable)		—	(18)	—	—	(1)	—	(19)
PPD, gross of related adjustments - favorable (unfavorable)		733	(81)	19	150	26	(433)	414
CAY loss and loss expense ex CATs	B	$ 8,994	$ 2,573	$ 1,528	$ 4,715	$ 338	$ 2	$ 18,150
Policy acquisition costs and administrative expenses								
Policy acquisition costs and administrative expenses	C	$ 2,948	$ 1,244	$ 132	$ 3,602	$ 211	$ 303	$ 8,440
Expense adjustments - favorable (unfavorable)		1	—	(6)	—	2	—	(3)
Policy acquisition costs and administrative expenses, adjusted	D	$ 2,949	$ 1,244	$ 126	$ 3,602	$ 213	$ 303	$ 8,437
Denominator								
Net premiums earned	E	$ 13,964	$ 4,866	$ 1,822	$ 9,285	$ 698		$ 30,635
Reinstatement premiums (collected) expensed on catastrophe losses		3	1	1	15	(10)		10
Net premiums earned adjustments on PPD - unfavorable (favorable)		32	—	3	—	—		35
PPD reinstatement premiums - unfavorable (favorable)		—	(18)	—	—	(1)		(19)
Net premiums earned excluding adjustments	F	$ 13,999	$ 4,849	$ 1,826	$ 9,300	$ 687		$ 30,661
P&C Combined ratio								
Loss and loss expense ratio	A/E	72.5 %	65.5 %	84.7 %	56.6 %	62.3 %		68.5 %
Policy acquisition cost and administrative expense ratio	C/E	21.2 %	25.6 %	7.3 %	38.8 %	30.2 %		27.6 %
P&C Combined ratio		93.7 %	91.1 %	92.0 %	95.4 %	92.5 %		96.1 %
CAY P&C Combined ratio ex CATs								
Loss and loss expense ratio, adjusted	B/F	64.2 %	53.1 %	83.7 %	50.7 %	49.1 %		59.2 %
Policy acquisition cost and administrative expense ratio, adjusted	D/F	21.1 %	25.6 %	6.8 %	38.7 %	31.0 %		27.5 %
CAY P&C Combined ratio ex CATs		85.3 %	78.7 %	90.5 %	89.4 %	80.1 %		86.7 %
Combined ratio								
Combined ratio								96.1 %
Add: impact of gains and losses on crop derivatives								—
P&C Combined ratio								96.1 %

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.

For the Year Ended December 31, 2019 (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**	$ 8,206	$ 3,043	$ 1,616	$ 4,606	$ 352	$ 158	$ 17,981
Catastrophe losses and related adjustments								
Catastrophe losses, net of related adjustments		(421)	(554)	(8)	(156)	(48)	—	(1,187)
Reinstatement premiums collected (expensed) on catastrophe losses		—	(11)	—	(4)	3	—	(12)
Catastrophe losses, gross of related adjustments		(421)	(543)	(8)	(152)	(51)	—	(1,175)
PPD and related adjustments								
PPD, net of related adjustments - favorable (unfavorable)		649	95	80	92	29	(153)	792
Net premiums earned adjustments on PPD - unfavorable (favorable)		38	—	36	—	1	—	75
Expense adjustments - unfavorable (favorable)		(3)	—	(13)	—	(1)	—	(17)
PPD reinstatement premiums - unfavorable (favorable)		(1)	(4)	—	1	(1)	—	(5)
PPD, gross of related adjustments - favorable (unfavorable)		683	91	103	93	28	(153)	845
CAY loss and loss expense ex CATs	**B**	$ 8,468	$ 2,591	$ 1,711	$ 4,547	$ 329	$ 5	$ 17,651
Policy acquisition costs and administrative expenses								
Policy acquisition costs and administrative expenses	**C**	$ 2,859	$ 1,234	$ 90	$ 3,534	$ 204	$ 319	$ 8,240
Expense adjustments - favorable (unfavorable)		3	—	13	—	1	—	17
Policy acquisition costs and administrative expenses, adjusted	**D**	$ 2,862	$ 1,234	$ 103	$ 3,534	$ 205	$ 319	$ 8,257
Denominator								
Net premiums earned	**E**	$ 12,922	$ 4,694	$ 1,795	$ 8,882	$ 654		$ 28,947
Reinstatement premiums (collected) expensed on catastrophe losses		—	11	—	4	(3)		12
Net premiums earned adjustments on PPD - unfavorable (favorable)		38	—	36	—	1		75
PPD reinstatement premiums - unfavorable (favorable)		(1)	(4)	—	1	(1)		(5)
Net premiums earned excluding adjustments	**F**	$ 12,959	$ 4,701	$ 1,831	$ 8,887	$ 651		$ 29,029
P&C Combined ratio								
Loss and loss expense ratio	**A/E**	63.5 %	64.8 %	90.1 %	51.9 %	53.9 %		62.1 %
Policy acquisition cost and administrative expense ratio	**C/E**	22.1 %	26.3 %	5.0 %	39.7 %	31.1 %		28.5 %
P&C Combined ratio		85.6 %	91.1 %	95.1 %	91.6 %	85.0 %		90.6 %
CAY P&C Combined ratio ex CATs								
Loss and loss expense ratio, adjusted	**B/F**	65.3 %	55.1 %	93.5 %	51.2 %	50.6 %		60.8 %
Policy acquisition cost and administrative expense ratio, adjusted	**D/F**	22.1 %	26.3 %	5.6 %	39.7 %	31.5 %		28.4 %
CAY P&C Combined ratio ex CATs		87.4 %	81.4 %	99.1 %	90.9 %	82.1 %		89.2 %
Combined ratio								
Combined ratio								90.6 %
Add: impact of gains and losses on crop derivatives								—
P&C Combined ratio								90.6 %

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.

For the Year Ended December 31, 2018 (in millions of U.S. dollars except for ratios)		North America Commercial P&C Insurance	North America Personal P&C Insurance	North America Agricultural Insurance	Overseas General Insurance	Global Reinsurance	Corporate	Total P&C
Numerator								
Losses and loss expenses	**A**	$ 8,000	$ 3,229	$ 1,114	$ 4,429	$ 479	$ 53	$ 17,304
Catastrophe losses and related adjustments								
Catastrophe losses, net of related adjustments		(579)	(637)	(21)	(206)	(183)	—	(1,626)
Reinstatement premiums collected (expensed) on catastrophe losses		—	(26)	—	—	22	—	(4)
Catastrophe losses, gross of related adjustments		(579)	(611)	(21)	(206)	(205)	—	(1,622)
PPD and related adjustments								
PPD, net of related adjustments - favorable (unfavorable)		610	(41)	110	212	50	(45)	896
Net premiums earned adjustments on PPD - unfavorable (favorable)		29	—	40	—	8	—	77
Expense adjustments - unfavorable (favorable)		7	—	(10)	—	(1)	—	(4)
PPD reinstatement premiums - unfavorable (favorable)		7	1	—	4	—	—	12
PPD, gross of related adjustments - favorable (unfavorable)		653	(40)	140	216	57	(45)	981
CAY loss and loss expense ex CATs	**B**	$ 8,074	$ 2,578	$ 1,233	$ 4,439	$ 331	$ 8	$ 16,663
Policy acquisition costs and administrative expenses								
Policy acquisition costs and administrative expenses	**C**	$ 2,795	$ 1,208	$ 70	$ 3,360	$ 203	$ 295	$ 7,931
Expense adjustments - favorable (unfavorable)		(7)	—	10	—	1	—	4
Policy acquisition costs and administrative expenses, adjusted	**D**	$ 2,788	$ 1,208	$ 80	$ 3,360	$ 204	$ 295	$ 7,935
Denominator								
Net premiums earned	**E**	$ 12,402	$ 4,593	$ 1,569	$ 8,612	$ 670		$ 27,846
Reinstatement premiums (collected) expensed on catastrophe losses		—	26	—	—	(22)		4
Net premiums earned adjustments on PPD - unfavorable (favorable)		29	—	40	—	8		77
PPD reinstatement premiums - unfavorable (favorable)		7	1	—	4	—		12
Net premiums earned excluding adjustments	**F**	$ 12,438	$ 4,620	$ 1,609	$ 8,616	$ 656		$ 27,939
P&C Combined ratio								
Loss and loss expense ratio	**A/E**	64.5 %	70.3 %	71.0 %	51.4 %	71.6 %		62.1 %
Policy acquisition cost and administrative expense ratio	**C/E**	22.5 %	26.3 %	4.5 %	39.0 %	30.2 %		28.5 %
P&C Combined ratio		87.0 %	96.6 %	75.5 %	90.4 %	101.8 %		90.6 %
CAY P&C Combined ratio ex CATs								
Loss and loss expense ratio, adjusted	**B/F**	64.9 %	55.8 %	76.7 %	51.5 %	50.5 %		59.6 %
Policy acquisition cost and administrative expense ratio, adjusted	**D/F**	22.4 %	26.1 %	4.9 %	39.0 %	31.1 %		28.4 %
CAY P&C Combined ratio ex CATs		87.3 %	81.9 %	81.6 %	90.5 %	81.6 %		88.0 %
Combined ratio								
Combined ratio								90.6 %
Add: impact of gains and losses on crop derivatives								—
P&C Combined ratio								*90.6 %*

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.

Net Investment Income

(in millions of U.S. dollars, except for percentages)	2020	2019	2018
Average invested assets	**$ 109,766**	$ 104,074	$ 101,453
Net investment income [1]	**$ 3,375**	$ 3,426	$ 3,305
Yield on average invested assets	**3.1 %**	3.3 %	3.3 %
Market yield on fixed maturities	**1.7 %**	2.7 %	3.7 %

[1] Includes $116 million, $161 million and $248 million of amortization expense related to the fair value adjustment of acquired invested assets related to the Chubb Corp acquisition in 2020, 2019 and 2018, respectively.

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 decreased 1.5 percent in 2020 compared with 2019, primarily due to lower reinvestment rates on new and reinvested assets, partially offset by higher average invested assets, higher dividends on public equities, and an increase in income from corporate bonds called before maturity. Refer to Note 1 e) to the Consolidated Financial Statements for additional information.

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)	2020	2019	2018
Total mark-to-market gain on private equity, pre-tax	**$ 714**	$ 449	$ 298

Amortization of Purchased Intangibles and Other Amortization

Amortization expense related to purchased intangibles was $290 million, $305 million, and $339 million for the years ended December 31, 2020, 2019, and 2018, respectively, and principally relates to the Chubb Corp acquisition. The amortization of purchased intangibles expense in 2021 is expected to be $286 million, or approximately $72 million each quarter. Refer to Note 6 to the Consolidated Financial Statements under Item 8 for more information.

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 December 31, 2020, the deferred tax liability associated with the Other intangible assets (excluding the fair value adjustment on Unpaid losses and loss expenses) was $1,295 million.

The following table presents at December 31, 2020, the expected reduction to 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 next five years:

For the Years Ending December 31 (in millions of U.S. dollars)	Reduction to deferred tax liability associated with intangible assets
2021	$ 68
2022	67
2023	61
2024	56
2025	52
Total	$ 304

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

The following table presents at December 31, 2020, 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 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]
2021	$ (110)	$ 21
2022	(103)	21
2023	—	21
2024	—	21
2025	—	21
Total	$ (213)	$ 105

[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.

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 4.0 years and 3.8 years at December 31, 2020 and 2019, respectively. We estimate that a 100 basis point (bps) increase in interest rates would reduce the valuation of our fixed income portfolio by approximately $4.3 billion at December 31, 2020.

We established credit loss valuation allowances as a result of our adoption of guidance on Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments (CECL) on January 1, 2020. The COVID-19 global pandemic and related economic conditions adversely impacted our investment portfolio in the first half of the year. This adverse impact was mitigated by the overall high credit quality of the portfolio and the stabilization of the valuation of securities due to measures announced by the U.S. Federal Reserve, including programs to support corporate and asset backed securities. Overall, the valuation allowance decreased in 2020. Refer to Notes 1 and 3 to the Consolidated Financial Statements for additional information on expected credit losses.

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)	December 31, 2020 Fair Value	December 31, 2020 Cost/ Amortized Cost, Net	December 31, 2019 Fair Value	December 31, 2019 Cost/ Amortized Cost
Fixed maturities available for sale	**$ 90,699**	**$ 85,168**	$ 85,488	$ 82,580
Fixed maturities held to maturity	**12,510**	**11,653**	13,005	12,581
Short-term investments	**4,345**	**4,349**	4,291	4,291
	107,554	**101,170**	102,784	99,452
Equity securities	**4,027**	**4,027**	812	812
Other investments	**7,945**	**7,945**	6,062	6,062
Total investments	**$ 119,526**	**$ 113,142**	$ 109,658	$ 106,326

The fair value of our total investments increased $9.9 billion during the year ended December 31, 2020, primarily due to the investing of operating cash flow and unrealized appreciation. This increase was partially offset by the payment of $1.6 billion, including collateralized deposits, to acquire additional ownership interest in Huatai Group, the payments 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 December 31, 2020 and 2019. The first table lists investments according to type and the second according to S&P credit rating:

(in millions of U.S. dollars, except for percentages)	December 31, 2020 Fair Value	December 31, 2020 % of Total	December 31, 2019 Fair Value	December 31, 2019 % of Total
U.S. Treasury / Agency	**$ 4,122**	**4 %**	$ 4,630	5 %
Corporate and asset-backed securities	**38,769**	**36 %**	34,259	33 %
Mortgage-backed securities	**20,616**	**19 %**	21,588	21 %
Municipal	**11,943**	**11 %**	12,824	12 %
Non-U.S.	**27,759**	**26 %**	25,192	25 %
Short-term investments	**4,345**	**4 %**	4,291	4 %
Total	**$ 107,554**	**100 %**	$ 102,784	100 %
AAA	**$ 15,622**	**15 %**	$ 15,714	15 %
AA	**36,125**	**33 %**	37,504	37 %
A	**19,712**	**18 %**	19,236	19 %
BBB	**17,542**	**16 %**	13,650	13 %
BB	**9,699**	**9 %**	9,474	9 %
B	**8,267**	**8 %**	6,897	7 %
Other	**587**	**1 %**	309	—
Total	**$ 107,554**	**100 %**	$ 102,784	100 %

Corporate and asset-backed securities

The following table presents our 10 largest global exposures to corporate bonds by fair value at December 31, 2020:

(in millions of U.S. dollars)	Fair Value
Wells Fargo & Co	$ 764
Bank of America Corp	689
JP Morgan Chase & Co	646
Comcast Corp	528
Morgan Stanley	466
Citigroup Inc	443
Verizon Communications Inc	418
AT&T Inc	415
Goldman Sachs Group Inc	405
HSBC Holdings Plc	387

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
December 31, 2020 (in millions of U.S. dollars)	AAA	AA	A	BBB	BB and below	Total	Total
Agency residential mortgage-backed (RMBS)	$ 126	$ 16,886	$ —	$ —	$ —	$ 17,012	$ 16,032
Non-agency RMBS	123	39	84	20	10	276	272
Commercial mortgage-backed securities	2,878	284	151	12	3	3,328	3,151
Total mortgage-backed securities	$ 3,127	$ 17,209	$ 235	$ 32	$ 13	$ 20,616	$ 19,455

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 December 31, 2020:

(in millions of U.S. dollars)	Fair Value	Amortized Cost, Net
Republic of Korea	$ 1,085	$ 976
Canada	992	950
United Kingdom	907	870
Province of Ontario	728	686
Kingdom of Thailand	637	544
United Mexican States	558	534
Province of Quebec	530	493
Federative Republic of Brazil	509	496
Commonwealth of Australia	471	423
Socialist Republic of Vietnam	394	267
Other Non-U.S. Government Securities	5,744	5,335
Total	$ 12,555	$ 11,574

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 December 31, 2020:

(in millions of U.S. dollars)	Fair Value	Amortized Cost, Net
United Kingdom	$ 2,422	$ 2,274
Canada	1,834	1,723
United States [1]	1,240	1,172
France	1,183	1,109
Australia	916	857
Netherlands	634	593
Germany	625	589
Japan	602	576
Switzerland	560	514
China	459	435
Other Non-U.S. Corporate Securities	4,729	4,460
Total	$ 15,204	$ 14,302

[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 December 31, 2020, 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 1,400 issuers, with the greatest single exposure being $176 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.

Asbestos and Environmental (A&E)

Asbestos and environmental (A&E) reserving considerations
For asbestos, Chubb faces claims relating to policies issued to manufacturers, distributors, installers, and other parties in the chain of commerce for asbestos and products containing asbestos. Claimants will generally allege damages across an extended time period which may coincide with multiple policies covering a wide range of time periods for a single insured.

Environmental claims present exposure for remediation and defense costs associated with the contamination of property as a result of pollution.

The following table presents count information for asbestos claims by causative agent and environmental claims by account, for direct policies only:

	Asbestos (by causative agent)		Environmental (by account)	
	2020	2019	**2020**	2019
Open at beginning of year	**1,724**	1,838	**1,217**	1,361
Newly reported/reopened	**192**	173	**130**	140
Closed or otherwise disposed	**193**	287	**113**	284
Open at end of year	**1,723**	1,724	**1,234**	1,217

Survival ratios are calculated by dividing the asbestos or environmental loss and allocated loss adjustment expense (ALAE) reserves by the average asbestos or environmental loss and ALAE payments for the three most recent calendar years (3-year survival ratio). The 3-year survival ratios for gross and net Asbestos loss and ALAE reserves were 5.9 years and 6.3 years, respectively. The 3-year survival ratios for gross and net Environmental loss and ALAE reserves were 4.9 years and 25.5 years, respectively. The net 3-year survival ratios were impacted by favorable reinsurance settlements in 2018. Excluding the settlements, the 3-year survival ratio for net Asbestos loss and ALAE reserves and net Environmental loss and ALAE reserves were 6.0 years and 5.2 years, respectively. The survival ratios provide only a very rough depiction of reserves and are significantly impacted by a number of factors such as aggressive settlement practices, variations in gross to ceded relationships within the asbestos or environmental claims, and levels of coverage provided. Therefore, we urge caution in using these very simplistic ratios to gauge reserve adequacy.

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 December 31, 2020, for Worldwide, U.S. hurricane and California earthquake events, based on our in-force portfolio at October 1, 2020 and reflecting the April 1, 2020 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 $2,725 million (or 4.6 percent of our total shareholders' equity at December 31, 2020). These estimates assume that reinsurance recoverable is fully collectible.

	Modeled Net Probable Maximum Loss (PML) Pre-tax					
	Worldwide [1]		U.S. Hurricane [2]		California Earthquake [3]	
	Annual Aggregate		Annual Aggregate		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	$ 1,880	3.2 %	$ 1,099	1.8 %	$ 142	0.2 %
1-in-100	$ 3,982	6.7 %	$ 2,725	4.6 %	$ 1,302	2.2 %
1-in-250	$ 6,604	11.1 %	$ 4,918	8.3 %	$ 1,475	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 excludes 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, 2020 through March 31, 2021, with no material changes in coverage from 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, 2020 through March 31, 2021 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 – $2.15 billion	All natural perils and terrorism	(c)
United States (excluding Alaska and Hawaii)	$2.15 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 – $1.175 billion	All natural perils and terrorism	(c)
Alaska, Hawaii, and Canada	$1.175 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.

Political Risk and Credit Insurance

Political risk insurance is a specialized coverage that provides clients with protection against unexpected, catastrophic political or macroeconomic events, primarily in emerging markets. We participate in this market through our Bermuda based wholly-owned subsidiary Sovereign Risk Insurance Ltd. (Sovereign), and through a unit of our London-based CGM operation. Chubb is one of the world's leading underwriters of political risk and credit insurance, has a global portfolio spread across more than 150 countries and is also a member of The Berne Union. Our clients include financial institutions, national export credit agencies, leading multilateral agencies, private equity firms and multinational corporations. CGM writes political risk and credit insurance business out of underwriting offices in London, United Kingdom; Hamburg, Germany; Sao Paulo, Brazil; Singapore; Tokyo, Japan; and in the U.S. in the following locations: Chicago, New York, Los Angeles and Washington, D.C.

Our political risk insurance products provide protection to commercial lenders against defaults on cross border loans, covers investors against equity losses, and protects exporters against defaults on contracts. Commercial lenders, our largest client segment, are covered for missed scheduled loan repayments due to acts of confiscation, expropriation or nationalization by the host government, currency inconvertibility or exchange transfer restrictions, or war or other acts of political violence. In addition, in the case of loans to government-owned entities or loans that have a government guarantee, political risk policies cover scheduled payments against risks of non-payment or non-honoring of government guarantees. Private equity investors and corporations cover their equity investments against financial losses, such as expropriatory events, inability to repatriate dividends, and physical damage to their operations caused by covered political risk events. Our export contracts product provides coverage for both exporters and their financing banks against the risk of contract frustration due to government actions, including non-payment by governmental entities.

CGM's credit insurance businesses cover losses due to insolvency, protracted default, and political risk perils including export and license cancellation. Our credit insurance product provides coverage to larger companies that have sophisticated credit risk management systems, with exposure to multiple customers and that have the ability to self-insure losses up to a certain level through excess of loss coverage. It also provides coverage to trade finance banks, exporters, and trading companies, with exposure to trade-related financing instruments. CGM also has limited capacity for Specialist Credit insurance products which provide coverage for project finance and working capital loans for large corporations and banks.

We have implemented structural features in our policies in order to control potential losses within the political risk and credit insurance businesses. These include basic loss sharing features such as co-insurance and deductibles, and in the case of trade credit, the use of non-qualifying losses that drop smaller exposures deemed too difficult to assess. Ultimate loss severity is also limited by using waiting periods to enable the insurer and insured to mitigate losses and to agree on recovery strategies if a claim does materialize. We have the option to pay claims over the original loan repayment schedule, rather than in a lump sum, in order to provide insureds and the insurer additional time to remedy problems and work towards full recoveries. It is important to note that political risk and credit policies are named peril conditional insurance contracts, not financial guarantees, and claims are only paid after conditions and warranties are fulfilled. Political risk and credit insurance policies do not cover currency devaluations, bond defaults, movements in overseas equity markets, transactions deemed illegal, situations where corruption or misrepresentation has occurred, or debt that is not legally enforceable. In addition to assessing and mitigating potential exposure on a policy-by-policy basis, we also have specific risk management measures in place to manage overall exposure and risk. These measures include placing country, credit, and individual transaction limits based on country risk and credit ratings, combined single loss limits on multi-country policies, the use of quota share and excess of loss reinsurance protection as well as quarterly modeling and stress-testing of the portfolio. We have a dedicated Country and Credit Risk management team that are responsible for the portfolio.

Crop Insurance

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

The MPCI program, offered in conjunction with the U.S. Department of Agriculture's Risk Management Agency (RMA), is a federal subsidized insurance program that covers revenue shortfalls or production losses due to natural causes such as drought, excessive moisture, hail, wind, freeze, insects, and disease. These revenue products are defined as providing both commodity price and yield coverages. Policies are available for various crops in different areas of the U.S. and generally have deductibles generally ranging from 10 percent to 50 percent of the insured's risk. The USDA's Risk Management Agency (RMA) sets the policy terms and conditions, rates and forms, and is also responsible for setting compliance standards. As a participant in the MPCI program, we report all details of policies to the RMA and are party to a Standard Reinsurance Agreement (SRA). The SRA sets out the relationship between private insurance companies and the Federal Crop Insurance Corporation (FCIC) concerning the terms and conditions regarding the risks each will bear including the pro-rata and state stop-loss provisions, which allows companies to limit the exposure of any one state or group of states on their underwriting results. In addition to the pro-rata and excess of loss reinsurance protections inherent in the SRA, we also purchase third-party proportional and stop-loss reinsurance

for our MPCI business to reduce our exposure. We may also enter into crop derivative contracts to further manage our risk exposure.

Each year the RMA issues a final SRA for the subsequent reinsurance year (i.e., the 2021 SRA covers the 2021 reinsurance year from July 1, 2020 through June 30, 2021). There were no significant changes in the terms and conditions from the 2020 SRA and therefore, the new SRA does not impact Chubb's outlook on the crop program relative to 2021.

We recognize net premiums written as soon as estimable on our MPCI business, which is generally when we receive acreage reports from the policyholders on the various crops throughout the U.S. This allows us to best determine the premium associated with the liability that is being planted. The MPCI program has specific timeframes as to when producers must report acreage to us and in certain cases, the reporting occurs after the close of the respective reinsurance year. Once the net premium written has been recorded, the premium is then earned over the growing season for the crops. A majority of the crops that are covered in the program are typically subject to the SRA in effect at the beginning of the year. Given the major crops covered in the program, we typically see a substantial written and earned premium impact in the second and third quarters.

The pricing of MPCI premium is determined using a number of factors including commodity prices and related volatility (i.e., both impact the amount of premium we can charge to the policyholder). For example, in most states, the pricing for the MPCI revenue product for corn (i.e., insurance coverage for lower than expected crop revenue in a given season) includes a factor based on the average commodity price in February. If corn commodity prices are higher in February, compared to the February price in the prior year, and all other factors are the same, the increase in price will increase the corn premium year-over-year. Pricing is also impacted by volatility factors, which measure the likelihood commodity prices will fluctuate over the crop year. For example, if volatility is set at a higher rate compared to the prior year, and all other factors are the same, the premium charged to the policyholder will be higher year-over-year for the same level of coverage.

Losses incurred on the MPCI business are determined using both commodity price and crop yield. With respect to commodity price, there are two important periods on a large portion of the business: The month of February when the initial premium base is set, and the month of October when the final harvest price is set. If the price declines from February to October, with yield remaining at normal levels, the policyholder may be eligible to recover on the policy. However, in most cases there are deductibles on these policies, therefore, the impact of a decline in price would have to exceed the deductible before a policyholder would be eligible to recover.

We evaluate our MPCI business at an aggregate level and the combination of all of our insured crops (both winter and summer) go into our underwriting gain or loss estimate in any given year. Typically, we do not have enough information on the harvest prices or crop yield outputs to quantify the preliminary estimated impact to our underwriting results until the fourth quarter.

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

Liquidity

Liquidity is a measure of a company's ability to generate cash flows sufficient to meet short-term and long-term cash requirements. As a holding company, Chubb Limited possesses assets that consist primarily of the stock of its subsidiaries and other investments. In addition to net investment income, Chubb Limited's cash flows depend primarily on dividends and other statutorily permissible payments. Historically, dividends and other statutorily permitted payments have come primarily from Chubb's Bermuda-based operating subsidiaries, which we refer to as our Bermuda subsidiaries. Our consolidated sources of funds consist primarily of net premiums written, fees, net investment income, and proceeds from sales and maturities of investments. Funds are used at our various companies primarily to pay claims, operating expenses, and dividends; to service debt; to purchase investments; and to fund acquisitions.

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. Should the need arise, we generally have access to capital

markets and available credit facilities. Refer to "Credit Facilities" below for additional information. Our access to funds under the existing credit facility is dependent on the ability of the bank that is a party to the facility to meet its funding commitments. Should our existing credit provider experience financial difficulty, we may be required to replace credit sources, possibly in a difficult market. If we cannot obtain adequate capital or sources of credit on favorable terms, on a timely basis, or at all, our business, operating results, and financial condition could be adversely affected. To date, we have not experienced difficulty accessing our credit facility.

To further ensure the sufficiency of funds to settle unforeseen claims, we hold certain invested assets in cash and short-term investments. In addition, for certain insurance, reinsurance, or deposit contracts that tend to have relatively large and reasonably predictable cash outflows, we attempt to establish dedicated portfolios of assets that are duration-matched with the related liabilities. With respect to the duration of our overall investment portfolio, we manage asset durations to both maximize return given current market conditions and provide sufficient liquidity to cover future loss payments. At December 31, 2020, the average duration of our fixed maturities (4.0 years) is less than the average expected duration of our insurance liabilities (4.7 years).

Despite our safeguards, if paid losses accelerate beyond our ability to fund such paid losses from current operating cash flows, we might need to either liquidate a portion of our investment portfolio or arrange for financing. Potential events causing such a liquidity strain could include several significant catastrophes occurring in a relatively short period of time, large uncollectible reinsurance recoverables on paid losses (as a result of coverage disputes, reinsurers' credit problems, or decreases in the value of collateral supporting reinsurance recoverables) or increases in collateral postings under our variable annuity reinsurance business. Because each subsidiary focuses on a more limited number of specific product lines than is collectively available from the Chubb Group of Companies, the mix of business tends to be less diverse at the subsidiary level. As a result, the probability of a liquidity strain, as described above, may be greater for individual subsidiaries than when liquidity is assessed on a consolidated basis. If such a liquidity strain were to occur in a subsidiary, we could be required to liquidate a portion of our investments, potentially at distressed prices, as well as be required to contribute capital to the particular subsidiary and/or curtail dividends from the subsidiary to support holding company operations.

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 2020, 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 $1.9 billion and $200 million from its Bermuda subsidiaries in 2020 and 2019, respectively. Chubb Limited also received cash dividends of $110 million and non-cash dividends of $734 million from a Swiss subsidiary in 2020. There were no dividends received in 2019.

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. Chubb Limited received no dividends from CGM in 2020 and 2019.

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 Chubb INA in 2020 and 2019. Debt issued by Chubb INA is serviced by statutorily permissible distributions by Chubb INA's insurance subsidiaries to Chubb INA as well as other group resources. Chubb INA received dividends of $1.2 billion and $3.7 billion from its subsidiaries in 2020 and 2019, respectively. At December 31, 2020, the amount of dividends available to be paid to Chubb INA in 2021 from its subsidiaries without prior approval of insurance regulatory authorities totals $2.7 billion.

Cash Flows

Our insurance and reinsurance operations provide liquidity in that premiums are received in advance, sometimes substantially in advance, of the time claims are paid. Generally, cash flows are affected by claim payments that, due to the nature of our operations, may comprise large loss payments on a limited number of claims and which can fluctuate significantly from period to period. The irregular timing of these loss payments can create significant variations in cash flows from operations between periods. Refer to "Contractual Obligations and Commitments" for our estimate of future claim payments by period. Sources of liquidity include cash from operations, routine sales of investments, and financing arrangements. The following is a discussion of our cash flows for 2020, 2019, and 2018.

Operating cash flows reflect Net income for each period, adjusted for non-cash items and changes in working capital.

Operating cash flows were $9.8 billion in 2020, compared to $6.3 billion and $5.5 billion in 2019 and 2018, respectively. Operating cash flow increased $3.5 billion in 2020 compared to 2019, principally reflecting higher premiums collected and reduced payment activity due to the economic slowdown related to COVID-19 pandemic.

Cash used for investing was $7.5 billion in 2020, compared to $5.9 billion and $2.9 billion in 2019 and 2018, respectively. The current year included payment, including a deposit, of $1.6 billion for the purchase of an additional 16.2 percent ownership in Huatai Group. This compares to the prior year purchase of an additional 10.9 percent ownership interest in Huatai Group for $580 million. Refer to Note 2 to the Consolidated Financial Statements for additional information. In addition, the current year included higher private equity contributions, net of distributions received, of $1.1 billion.

Cash used for financing was $2.1 billion in 2020, compared to $151 million and $2.0 billion in 2019 and 2018, respectively. Cash used for financing was higher by $1.9 billion in 2020 compared to 2019 primarily due to lower net proceeds from the issuance of long-term debt (net of repayments) of $2.6 billion, partially offset by fewer shares repurchased in the current year. Refer to Note 11 to the Consolidated Financial Statements for additional information on share repurchases.

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 December 31, 2020, there were $1.4 billion in repurchase agreements outstanding with various maturities over the next eight months.

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. In each program, participating Chubb entities establish deposit accounts in different currencies with the bank provider. Each day the credit or debit balances in every account are notionally translated into a single currency (U.S. dollars) and then notionally pooled. The bank extends overdraft credit to all participating Chubb entities as needed, provided that the overall notionally pooled balance of all accounts in each pool at the end of each day is at least zero. Actual cash balances are not physically converted and are not commingled between legal entities. Chubb entities may incur overdraft balances as a means to address short-term liquidity needs. Any overdraft balances incurred under this program by a Chubb entity would be guaranteed by Chubb Limited (up to $300 million in the aggregate). Our syndicated letter of credit facility allows for same day drawings to fund a net pool overdraft should participating Chubb entities withdraw contributed funds from the pool.

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 percentages)	December 31 2020	December 31 2019
Short-term debt	$ —	$ 1,299
Long-term debt	**14,948**	13,559
Total financial debt	**14,948**	14,858
Trust preferred securities	**308**	308
Total shareholders' equity	**59,441**	55,331
Total capitalization	**$ 74,697**	$ 70,497
Ratio of financial debt to total capitalization	**20.0 %**	21.1 %
Ratio of financial debt plus trust preferred securities to total capitalization	**20.4 %**	21.5 %

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.

On September 17, 2020, Chubb INA issued $1.0 billion of 1.375 percent senior notes due September 2030. Chubb INA's $1.3 billion of 2.3 percent senior notes due November 2020 was paid upon maturity. Refer to Note 9 to the Consolidated Financial Statements for details about the debt issued and debt redeemed.

We believe our financial strength provides us with the flexibility and capacity to obtain available funds externally through debt or equity financing on both a short-term and long-term basis. Our ability to access the capital markets is dependent on, among other things, market conditions and our perceived financial strength. We have accessed both the debt and equity markets from time to time. 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. In October 2018, we filed an unlimited shelf registration which allows us to issue certain classes of debt and equity. This shelf registration expires in October 2021.

Securities Repurchases

From time to time, we repurchase shares as part of our capital management program. The Board of Directors (Board) has authorized share repurchase programs as follows:

- $1.0 billion of Chubb Common Shares from January 1, 2018 through December 31, 2018
- $1.5 billion of Chubb Common Shares from December 1, 2018 through December 31, 2019
- $1.5 billion of Chubb Common Shares from November 21, 2019 through December 31, 2020
- $1.5 billion of Chubb Common Shares from November 19, 2020 through December 31, 2021

Subsequently, 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.

Share repurchases may be made in the open market, in privately negotiated transactions, block trades, accelerated repurchases and/or through option or other forward transactions. In 2020, 2019, and 2018 we repurchased $516 million, $1.53 billion, and $1.02 billion, respectively, of Common Shares in a series of open market transactions under the Board share repurchase authorizations. On April 22, 2020, we suspended share repurchases, given the economic environment and to preserve capital for both risk and opportunity. Subsequently we announced and then resumed share repurchases on October 29, 2020. The $1.5 billion November 2019 authorization remained effective through December 31, 2020. Repurchases through December 31, 2020 were made under this authorization. For the period January 1 through February 24, 2021, we repurchased 1,971,000 Common Shares for a total of $327 million in a series of open market transactions under the share repurchase program authorized in November 2020. At February 24, 2021, $2.17 billion in share repurchase authorization remained through December 31, 2021.

Common Shares

Our Common Shares had a par value of CHF 24.15 each at December 31, 2020.

As of December 31, 2020, there were 26,872,639 Common Shares in treasury with a weighted average cost of $135.58 per share.

Under Swiss law, dividends must be stated in Swiss francs though dividend payments are made by Chubb in U.S. dollars.

At our May 2019 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.00 per share, which was paid in four quarterly installments of $0.75 per share at dates determined by the Board after the annual general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment.

At our May 2020 annual general meeting, our shareholders approved an annual dividend for the following year of up to $3.12 per share, expected to be paid in four quarterly installments of $0.78 per share after the annual general meeting by way of distribution from capital contribution reserves, transferred to free reserves for payment. The Board will determine the record and payment dates at which the annual dividend may be paid until the date of the 2021 annual general meeting, and is authorized to abstain from distributing a dividend at its discretion. The first three quarterly installments each of $0.78 per share, have been distributed by the Board as expected.

Dividend distributions on Common Shares amounted to CHF 2.89 ($3.09) per share for the year ended December 31, 2020. Refer to Note 11 to the Consolidated Financial Statements for additional information on our dividends.

Contractual Obligations and Commitments

The following table presents our future payments due by period under contractual obligations at December 31, 2020:

		Payments Due By Period			
(in millions of U.S. dollars)	Total	2021	2022 and 2023	2024 and 2025	Thereafter
Payment amounts determinable from the respective contracts					
Deposit liabilities [1]	$ 2,323	$ 34	$ 104	$ 148	$ 2,037
Purchase obligations [2]	470	240	230	—	—
Investments, including Limited Partnerships [3]	3,805	1,429	1,713	459	204
Operating leases	550	150	219	106	75
Repurchase agreements	1,405	1,405	—	—	—
Long-term debt [4]	14,705	—	1,475	2,346	10,884
Trust preferred securities	309	—	—	—	309
Interest on debt obligations [4]	5,925	468	902	804	3,751
Total obligations in which payment amounts are determinable from the respective contracts	29,492	3,726	4,643	3,863	17,260
Payment amounts not determinable from the respective contracts					
Estimated gross loss payments under insurance and reinsurance contracts	67,851	19,587	18,599	9,439	20,226
Estimated payments for future policy benefits and GLB	22,006	1,034	2,183	1,653	17,136
Total contractual obligations and commitments	$ 119,349	$ 24,347	$ 25,425	$ 14,955	$ 54,622

[1] Refer to Note 1 k) to the Consolidated Financial Statements.

[2] Primarily comprises agreements with vendors to purchase system software administration and maintenance services, and audit fees.

[3] Funding commitment primarily related to limited partnerships. The timing of the payments of these commitments is uncertain and may differ from the estimated timing in the table.

[4] Subject to foreign exchange fluctuations on interest expense and principal.

The contractual obligations and commitments table excludes the following items:

- Pension obligations: Minimum funding requirements for our pension obligations are immaterial. Subsequent funding commitments are apt to vary due to many factors and are difficult to estimate at this time. Refer to Note 13 to the Consolidated Financial Statements for additional information.
- Liabilities for unrecognized tax benefits: The liability for unrecognized tax benefits, excluding interest and offsetting tax credits, was $76 million at December 31, 2020. At December 31, 2020, we had accrued $16 million in liabilities for income tax-related interest and penalties in our Consolidated balance sheet. Other than settlement of a liability in January 2021 for $23 million, including interest, we are unable to make a reliable estimate for the timing of cash settlement of these liabilities. Refer to Note 8 to the Consolidated Financial Statements for additional information.

We have no other significant contractual obligations or commitments not reflected in the table above. We do not have any off-balance sheet arrangements that are reasonably likely to have a material effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources.

Estimated gross loss payments under insurance and reinsurance contracts
We are obligated to pay claims under insurance and reinsurance contracts for specified loss events covered under those contracts. Such loss payments represent our most significant future payment obligation as a P&C insurance and reinsurance company. In contrast to other contractual obligations, cash payments are not determinable from the terms specified within the contract. For example, we do not ultimately make a payment to our counterparty for many insurance and reinsurance contracts (i.e., when a loss event has not occurred) and if a payment is to be made, the amount and timing cannot be determined from the contract. In the table above, we estimate payments by period relating to our gross liability for unpaid losses and loss expenses included in the Consolidated balance sheet at December 31, 2020, and do not take into account reinsurance recoverable. These estimated loss payments are inherently uncertain and the amount and timing of actual loss payments are likely to differ from these estimates and the differences could be material. Given the numerous factors and assumptions involved in both estimates of loss and loss expense reserves and related estimates as to the timing of future loss and loss expense payments in the table above, differences between actual and estimated loss payments will not necessarily indicate a commensurate change in ultimate loss estimates. The liability for Unpaid losses and loss expenses presented in our balance sheet is discounted for 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. Accordingly, the estimated amounts in the table exceed the liability for Unpaid losses and loss expenses presented in our balance sheet. Refer to Note 1 h) to the Consolidated Financial Statements for additional information.

Estimated payments for future policy benefits
We establish reserves for future policy benefits for life, long-term health, and annuity contracts. The amounts in the table are gross of fees or premiums due from the underlying contracts. The liability for Future policy benefits for life, long-term health, and annuity contracts presented in our balance sheet is discounted and reflected net of fees or premiums due from the underlying contracts. Accordingly, the estimated amounts in the table exceed the liability for Future policy benefits presented in our balance sheet. Payment amounts related to these reserves must be estimated and are not determinable from the contract. Due to the uncertainty with respect to the timing and amount of these payments, actual results could materially differ from the estimates in the table.

Credit Facilities

As our Bermuda subsidiaries are non-admitted insurers and reinsurers in the U.S., the terms of certain U.S. insurance and reinsurance contracts require them to provide collateral, which can be in the form of letters of credit (LOCs). LOCs may also be used for general corporate purposes.

Should the need arise, we generally have access to capital markets and to credit facilities with letter of credit capacity of $4.0 billion with a sub-limit of $1.9 billion for revolving credit. At December 31, 2020, our usage under these facilities was $1.7 billion in LOCs, of which $1.1 billion related to our variable annuity reinsurance program. 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. 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 or establishing additional facilities when needed.

In the event we are required to provide alternative security to clients, the security could take the form of additional insurance trusts supported by our investment portfolio or funds withheld using our cash resources. The value of LOCs required is driven by, among other things, statutory liabilities reported by variable annuity guarantee reinsurance clients, loss development of existing reserves, the payment pattern of such reserves, the expansion of business, and loss experience of such business.

The facilities noted above require that we maintain certain financial covenants, all of which have been met at December 31, 2020. These covenants include:

(i) a minimum consolidated net worth of not less than $34.985 billion; and
(ii) a ratio of consolidated debt to total capitalization of not greater than 0.35 to 1.

At December 31, 2020, (a) the minimum consolidated net worth requirement under the covenant described in (i) above was $34.985 billion and our actual consolidated net worth as calculated under that covenant was $56.6 billion and (b) our ratio of debt to total capitalization, as calculated under the covenant which excludes the fair value adjustment of debt acquired through the Chubb Corp acquisition, was 0.20 to 1, which is below the maximum debt to total capitalization ratio of 0.35 to 1 as described in (ii) above.

Our failure to comply with the covenants under any credit facility would, subject to grace periods in the case of certain covenants, result in an event of default. This could require us to repay any outstanding borrowings or to cash collateralize LOCs under such facility. Our failure to repay material financial obligations, as well as our failure with respect to certain other events expressly identified, would result in an event of default under the facility.

Ratings

Chubb Limited and its subsidiaries are assigned credit and financial strength (insurance) ratings from internationally recognized rating agencies, including S&P, A.M. Best, Moody's, and Fitch. The ratings issued on our companies by these agencies are announced publicly and are available directly from the agencies. Our Internet site (investors.chubb.com, under Shareholder Resources/Rating Agency Ratings) also contains some information about our ratings, but such information on our website is not incorporated by reference into this report.

Financial strength ratings reflect the rating agencies' opinions of a company's claims paying ability. Independent ratings are one of the important factors that establish our competitive position in the insurance markets. The rating agencies consider many factors in determining the financial strength rating of an insurance company, including the relative level of statutory surplus necessary to support the business operations of the company. These ratings are based upon factors relevant to policyholders, agents, and intermediaries and are not directed toward the protection of investors. Such ratings are not recommendations to buy, sell, or hold securities.

Credit ratings assess a company's ability to make timely payments of principal and interest on its debt. It is possible that, in the future, one or more of the rating agencies may reduce our existing ratings. If one or more of our ratings were downgraded, we could incur higher borrowing costs, and our ability to access the capital markets could be impacted. In addition, our insurance and reinsurance operations could be adversely impacted by a downgrade in our financial strength ratings, including a possible reduction in demand for our products in certain markets. Also, we have insurance and reinsurance contracts which contain rating triggers. In the event the S&P or A.M. Best financial strength ratings of Chubb fall, we may be faced with the cancellation of premium or be required to post collateral on our underlying obligation associated with this premium. We estimate that at December 31, 2020, a one-notch downgrade of our S&P or A.M. Best financial strength ratings would result in an immaterial loss of premium or requirement for collateral to be posted.

ITEM 7A. Quantitative and Qualitative Disclosures about Market Risk

Market Sensitive Instruments and Risk Management

Market risk represents the potential for loss due to adverse changes in the fair value of financial instruments. We are exposed to potential losses from various market risks including changes in interest rates, equity prices, and foreign currency exchange rates. Further, through writing the GLB and GMDB products, we are exposed to volatility in the equity and credit markets, as well as interest rates. Our investment portfolio consists primarily of fixed income securities, denominated in both U.S. dollars and foreign currencies, which are sensitive to changes in interest rates and foreign currency exchange rates. The majority of our fixed income portfolio is classified as available for sale. 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 allowance for expected credit losses Changes in interest rates and foreign currency exchange rates will have an immediate effect on Shareholders' equity and Comprehensive income and in certain instances, Net income. From time to time, we also use derivative instruments such as futures, options, swaps, and foreign currency forward contracts to manage the duration of our investment portfolio and foreign currency exposures and also to obtain exposure to a particular financial market. At December 31, 2020 and 2019, our notional exposure to derivative instruments was $5.3 billion and $4.9 billion, respectively. These instruments are recognized as assets or liabilities in our Consolidated Financial Statements and are sensitive to changes in interest rates, foreign currency exchange rates, and equity security prices. As part of our investing activities, from time to time we purchase to be announced mortgage backed securities (TBAs). Changes in the fair value of TBAs are included in Net realized gains (losses) and therefore, have an immediate effect on both our Net income and Shareholders' equity.

We seek to mitigate market risk using a number of techniques, including maintaining and managing the assets and liabilities of our international operations consistent with the foreign currencies of the underlying insurance and reinsurance businesses, thereby limiting exchange rate risk to net assets denominated in foreign currencies.

The following is a discussion of our primary market risk exposures at December 31, 2020. Our policies to address these risks in 2020 were not materially different from 2019. We do not currently anticipate significant changes in our primary market risk exposures or in how those exposures are managed in future reporting periods based upon what is known or expected to be in effect in future reporting periods.

Interest rate risk – fixed income portfolio and debt obligations

Our fixed income portfolio and debt obligations have exposure to interest rate risk. Changes in investment values attributable to interest rate changes are mitigated by corresponding and partially offsetting changes in the economic value of our insurance reserves and debt obligations. We monitor this exposure through periodic reviews of our asset and liability positions.

The following table presents the impact at December 31, 2020 and 2019, on the fair value of our fixed income portfolio of a hypothetical increase in interest rates of 100 bps applied instantly across the U.S. yield curve (an immediate time horizon was used as this presents the worst case scenario):

(in billions of U.S. dollars, except for percentages)	2020	2019
Fair value of fixed income portfolio	**$ 107.6**	$ 102.8
Pre-tax impact of 100 bps increase in interest rates:		
Decrease in dollars	**$ 4.3**	$ 3.9
As a percentage of total fixed income portfolio at fair value	**4.0 %**	3.8 %

Changes in interest rates will have an immediate effect on Comprehensive income and Shareholders' equity but will not ordinarily have an immediate effect on Net income. Variations in market interest rates could produce significant changes in the timing of prepayments due to available prepayment options. For these reasons, actual results could differ from those reflected in the tables.

Although our debt and trust preferred securities (collectively referred to as debt obligations) are reported at amortized cost and not adjusted for fair value changes, changes in interest rates could have a material impact on their fair value, albeit there would be no impact on our Consolidated Financial Statements.

The following table presents the impact at December 31, 2020 and 2019, on the fair value of our debt obligations of a hypothetical decrease in interest rates of 100 bps applied instantly across the U.S. yield curve (an immediate time horizon was used as this presents the worst case scenario):

(in millions of U.S. dollars, except for percentages)	2020	2019
Fair value of debt obligations, including repurchase agreements	**$ 19,365**	$ 18,238
Pre-tax impact of 100 bps decrease in interest rates:		
Increase in dollars	**$ 1,673**	$ 1,570
As a percentage of total debt obligations at fair value	**8.6 %**	8.6 %

Foreign currency management

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

The following table summarizes the net assets (liabilities) in non-U.S. currencies at December 31, 2020 and 2019:

	2020		2019		2020 vs. 2019
(in millions of U.S. dollars, except for percentages)	**Value of net assets (liabilities)**	**Exchange rate per USD**	Value of net assets (liabilities)	Exchange rate per USD	% change in exchange rate per USD
Chinese yuan renminbi (CNY)	**$ 2,853**	**0.1532**	$ 1,539	0.1436	6.7 %
Canadian dollar (CAD)	**2,613**	**0.7858**	2,220	0.7698	2.1 %
British pound sterling (GBP)	**2,492**	**1.3670**	2,024	1.3257	3.1 %
Australian dollar (AUD)	**1,347**	**0.7694**	1,100	0.7021	9.6 %
Mexican peso (MXN)	**877**	**0.0502**	942	0.0528	(5.0)%
Korean won (KRW) (x100)	**781**	**0.0920**	788	0.0865	6.4 %
Brazilian real (BRL)	**747**	**0.1926**	990	0.2485	(22.5)%
Japanese yen (JPY)	**617**	**0.0097**	432	0.0092	5.2 %
Thai baht (THB)	**565**	**0.0334**	606	0.0337	(0.8)%
Euro (EUR) [1]	**(3,162)**	**1.2216**	(3,129)	1.1213	8.9 %
Other foreign currencies	**3,016**	**various**	2,845	various	NM
Value of net assets denominated in foreign currencies [2]	**$ 12,746**		$ 10,357		
As a percentage of total net assets	**21.4 %**		18.7 %		
Pre-tax decrease to Shareholders' equity of a hypothetical 10 percent strengthening of the USD	**$ 1,159**		$ 942		

NM – not meaningful

[1] Comprised Euro denominated debt of $5.2 billion, partially offset by net assets of $2.1 billion at December 31, 2020 and Euro denominated debt of $4.8 billion, partially offset by net assets of $1.7 billion at December 31, 2019.

[2] At December 31, 2020, net assets denominated in foreign currencies comprised approximately 46 percent goodwill and other intangible assets.

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 December 31, 2020 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: 75 percent—85 percent U.S. equity, and 15 percent—25 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 December 31, 2020 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 first quarter 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	$ 416	$ 277	$ 113	$ (81)	$ (315)	$ (603)
	Increase/(decrease) in hedge value	(73)	—	73	145	218	290
	Increase/(decrease) in net income	$ 343	$ 277	$ 186	$ 64	$ (97)	$ (313)
Flat	(Increase)/decrease in FVL	$ 160	$ —	$ (188)	$ (408)	$ (672)	$ (995)
	Increase/(decrease) in hedge value	(73)	—	73	145	218	290
	Increase/(decrease) in net income	$ 87	$ —	$ (115)	$ (263)	$ (454)	$ (705)
-100 bps	(Increase)/decrease in FVL	$ (111)	$ (291)	$ (501)	$ (749)	$(1,050)	$ (1,412)
	Increase/(decrease) in hedge value	(73)	—	73	145	218	290
	Increase/(decrease) in net income	$ (184)	$ (291)	$ (428)	$ (604)	$ (832)	$ (1,122)

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	$ 86	$ (97)	$ —	$ —	$ (13)	$ 13
Increase/(decrease) in net income	$ 86	$ (97)	$ —	$ —	$ (13)	$ 13

Sensitivities to Actuarial Assumptions	Mortality			
(in millions of U.S. dollars)	+20 %	+10 %	-10 %	-20%
(Increase)/decrease in FVL	$ 24	$ 12	$ (12)	$ (25)
Increase/(decrease) in net income	$ 24	$ 12	$ (12)	$ (25)

	Lapses			
(in millions of U.S. dollars)	+50 %	+25 %	-25 %	-50%
(Increase)/decrease in FVL	$ 139	$ 73	$ (81)	$ (170)
Increase/(decrease) in net income	$ 139	$ 73	$ (81)	$ (170)

	Annuitization			
(in millions of U.S. dollars)	+50 %	+25 %	-25 %	-50%
(Increase)/decrease in FVL	$ (492)	$ (263)	$ 302	$ 636
Increase/(decrease) in net income	$ (492)	$ (263)	$ 302	$ 636

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 December 31, 2020 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	$ 272	$ 257	$ 328	$ 699	$ 815	$ 703
Claims at 100% immediate mortality	157	166	179	166	147	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	$ 871	$ 1,249	$ 1,811	$ 2,415	$ 2,906	$ 3,266

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	$ 37	$ 45	$ 55	$ 67	$ 79	$ 89
GLB net amount at risk	309	409	542	704	873	982
Claims at 100% immediate mortality	36	35	35	35	35	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 8. Financial Statements and Supplementary Data

The financial statements and supplementary data are included in this Form 10-K commencing on page F-1.

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

ITEM 9A. 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 December 31, 2020. 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 December 31, 2020 that have materially affected, or are reasonably likely to materially affect, Chubb's internal controls over financial reporting. Chubb's management report on internal control over financial reporting is included on page F-3 and PricewaterhouseCoopers LLP's audit report is included on pages F-4, F-5, and F-6.

ITEM 9B. Other Information

Item not applicable.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

Information pertaining to this item is incorporated by reference to the sections entitled "Agenda Item 5 - Election of the Board of Directors", "Corporate Governance - The Board of Directors - Director Nomination Process", and "Corporate Governance - The Committees of the Board - Audit Committee" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A. Also incorporated herein by reference is the text under the caption "Information about our Executive Officers" appearing at the end of Part I Item 1 of the Annual Report on Form 10-K.

Code of Ethics

Chubb has adopted a Code of Conduct, which sets forth standards by which all Chubb employees, officers, and directors must abide as they work for Chubb. Chubb has posted this Code of Conduct on its Internet site (investors.chubb.com, under Corporate Governance/Highlights and Governance Documents/The Chubb Code of Conduct). Chubb intends to disclose on its Internet site any amendments to, or waivers from, its Code of Conduct that are required to be publicly disclosed pursuant to the rules of the SEC or the New York Stock Exchange.

ITEM 11. Executive Compensation

This item is incorporated by reference to the sections entitled "Executive Compensation", "Compensation Committee Report" and "Director Compensation" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

This item is incorporated by reference to the sections entitled "Information About Our Share Ownership" and "Agenda Item 9 - Approval of the Chubb Limited 2016 Long-Term Incentive Plan, as Amended and Restated - Explanation - Authorized Securities under Equity Compensation Plans" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders, which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A.

ITEM 13. Certain Relationships and Related Transactions and Director Independence

This item is incorporated by reference to the sections entitled "Corporate Governance - What Is Our Related Party Transactions Approval Policy And What Procedures Do We Use To Implement It?", "Corporate Governance - What Related Party Transactions Do We Have?", and "Corporate Governance - The Board of Directors - Director Independence" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A.

ITEM 14. Principal Accounting Fees and Services

This item is incorporated by reference to the section entitled "Agenda Item 4 – Election of Auditors – 4.2 – Ratification of appointment of PricewaterhouseCoopers LLP (United States) as independent registered public accounting firm for purposes of U.S. securities law reporting" of the definitive proxy statement for the 2021 Annual General Meeting of Shareholders which will be filed with the SEC not later than 120 days after the close of the fiscal year pursuant to Regulation 14A.

PART IV

ITEM 15. Exhibits, Financial Statement Schedules

(a) Financial Statements, Schedules, and Exhibits

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Other schedules have been omitted as they are not applicable to Chubb, or the required information has been included in the Consolidated Financial Statements and related notes.

3. Exhibits

		Incorporated by Reference			
Exhibit Number	Exhibit Description	Form	Original Number	Date Filed	Filed Herewith
3.1	Articles of Association of the Company, as amended and restated	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 and restated	8-K	4.1	August 4, 2020	
4.2	Organizational Regulations of the Company as amended	8-K	3.1	November 21, 2016	
4.3	Specimen share certificate representing Common Shares	8-K	4.3	July 18, 2008	
4.4	Indenture, dated March 15, 2002, between ACE Limited and Bank One Trust Company, N.A.	8-K	4.1	March 22, 2002	
4.5	Senior Indenture, dated August 1, 1999, among ACE INA Holdings, Inc., ACE Limited and Bank of New York Mellon Trust Company, N.A. (as successor), as trustee	S-3 ASR	4.4	December 10, 2014	
4.6	Indenture, dated November 30, 1999, among ACE INA Holdings, Inc. and Bank One Trust Company, N.A., as trustee	10-K	10.38	March 29, 2000	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
4.7	Indenture, dated December 1, 1999, among ACE INA Holdings, Inc., ACE Limited and Bank One Trust Company, National Association, as trustee	10-K	10.41	March 29, 2000	
4.8	Amended and Restated Trust Agreement, dated March 31, 2000, among ACE INA Holdings, Inc., Bank One Trust Company, National Association, as property trustee, Bank One Delaware Inc., as Delaware trustee and the administrative trustees named therein	10-K	4.17	March 16, 2006	
4.9	Common Securities Guarantee Agreement, dated March 31, 2000	10-K	4.18	March 16, 2006	
4.10	Capital Securities Guarantee Agreement, dated March 31, 2000	10-K	4.19	March 16, 2006	
4.11	Form of 2.70 percent Senior Notes due 2023	8-K	4.1	March 13, 2013	
4.12	Form of 4.15 percent Senior Notes due 2043	8-K	4.2	March 13, 2013	
4.13	First Supplemental Indenture dated as of March 13, 2013 to the Indenture dated as of August 1, 1999 among ACE INA Holdings, Inc., as Issuer, ACE Limited, as Guarantor, and The Bank of New York Mellon Trust Company, N.A., as Successor Trustee	8-K	4.3	March 13, 2013	
4.14	Form of 3.35 percent Senior Notes due 2024	8-K	4.1	May 27, 2014	
4.15	Form of 3.150 percent Senior Notes due 2025	8-K	4.1	March 16, 2015	
4.16	Form of 2.875 percent Senior Notes due 2022	8-K	4.2	November 3, 2015	
4.17	Form of 3.35 percent Senior Notes due 2026	8-K	4.3	November 3, 2015	
4.18	Form of 4.35 percent Senior Notes due 2045	8-K	4.4	November 3, 2015	
4.19	First Supplemental Indenture to the Chubb Corp Senior Indenture dated as of January 15, 2016 to the Indenture dated as of October 25, 1989 among ACE INA Holdings, Inc., as Successor Issuer, ACE Limited, as Guarantor, and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.1	January 15, 2016	
4.20	Second Supplemental Indenture to the Chubb Corp Junior Subordinated Indenture dated as of January 15, 2016 to the Indenture dated as of March 29, 2007 among ACE INA Holdings, Inc., as Successor Issuer, ACE Limited, as Guarantor, and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.2	January 15, 2016	
4.21	Chubb Corp Senior Indenture (incorporated by reference to Exhibit 4(a) to Chubb Corp's Registration Statement on Form S-3 filed on October 27, 1989) (File No. 33-31796)	S-3	4(a)	October 27, 1989	
4.22	Chubb Corp Junior Subordinated Indenture (incorporated by reference to Exhibit 4.1 to Chubb Corp's Current Report on Form 8-K filed on March 30, 2007) (File No. 001-08661)	8-K	4.1	March 30, 2007	
4.23	First Supplemental Indenture to the Chubb Corp Junior Subordinated Indenture dated as of March 29, 2007 between the Chubb Corporation and The Bank of New York Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.2 to Chubb Corp's Current Report on Form 8-K filed on March 30, 2007) (File No. 001-08661)	8-K	4.2	March 30, 2007	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
4.24	Form of 6.80 percent Chubb Corp Debentures due 2031 (incorporated by reference to Exhibit 4(a) to Chubb Corp's Registration Statement on Form S-3 filed on October 27, 1989) (File No. 33-31796)	S-3	4(a)	October 27, 1989	
4.25	Form of 6.00 percent Chubb Corp Senior Notes due 2037 (incorporated by reference to Exhibit 4.1 to Chubb Corp's Current Report on Form 8-K filed on May 11, 2007) (File No. 001-08661)	8-K	4.1	May 11, 2007	
4.26	Form of 6.50 percent Chubb Corp Senior Notes due 2038 (incorporated by reference to Exhibit 4.2 to Chubb Corp's Current Report on Form 8-K filed on May 6, 2008) (File No. 001-08661)	8-K	4.2	May 6, 2008	
4.27	Form of debenture for the 6.375 percent Chubb Corp DISCs (incorporated by reference to Exhibit 4.3 to Chubb Corp's Current Report on Form 8-K filed on March 30, 2007) (File No. 001-08661)	8-K	4.3	March 30, 2007	
4.28	Procedures regarding the registration of shareholders in the share register of Chubb Limited	10-K	4.32	February 28, 2017	
4.29	Form of Officer's Certificate related to the 1.550% Senior Notes due 2028 and 2.500% Senior Notes due 2038	8-K	4.1	March 6, 2018	
4.30	Form of Global Note for the 1.550% Senior Notes due 2028	8-K	4.2	March 6, 2018	
4.31	Form of Global Note for the 2.500% Senior Notes due 2038	8-K	4.3	March 6, 2018	
4.32	Form of Officer's Certificate related to the 0.875% Senior Notes due 2027 and 1.400% Senior Notes due 2031	8-K	4.1	June 17, 2019	
4.33	Form of Global Note for the 0.875% Senior Notes due 2027	8-K	4.2	June 17, 2019	
4.34	Form of Global Note for the 1.400% Senior Notes due 2031	8-K	4.3	June 17, 2019	
4.35	Form of Officer's Certificate related to the 0.300% Senior Notes due 2024 and 0.875% Senior Notes due 2029	8-K	4.1	December 5, 2019	
4.36	Form of Global Note for the 0.300% Senior Notes due 2024	8-K	4.2	December 5, 2019	
4.37	Form of Global Note for the 0.875% Senior Notes due 2029	8-K	4.3	December 5, 2019	
4.38	Form of Officer's Certificate related to the 1.375% Senior Notes due 2030	8-K	4.1	September 17, 2020	
4.39	Form of Global Note for the 1.375% Senior Notes due 2030	8-K	4.2	September 17, 2020	
4.40	Description of the Registrant's Securities				X
10.1*	Form of Indemnification Agreement between the Company and the directors of the Company, dated August 13, 2015	10-K	10.1	February 26, 2016	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.2	Credit Agreement for $1,000,000,000 Senior Unsecured Letter of Credit Facility, dated as of November 6, 2012, among ACE Limited, and certain subsidiaries and Wells Fargo Bank, National Association as Administrative Agent, the Swingline Bank and an Issuing Bank	10-K	10.13	February 28, 2013	
10.3*	Employment Terms dated October 29, 2001, between ACE Limited and Evan Greenberg	10-K	10.64	March 27, 2003	
10.4*	Employment Terms dated November 2, 2001, between ACE Limited and Philip V. Bancroft	10-K	10.65	March 27, 2003	
10.5*	Executive Severance Agreement between ACE Limited and Philip Bancroft, effective January 2, 2002	10-Q	10.1	May 10, 2004	
10.6*	Letter Regarding Executive Severance between ACE Limited and Philip V. Bancroft	10-K	10.17	February 25, 2011	
10.7*	Employment Terms dated April 10, 2006, between ACE and John Keogh	10-K	10.29	February 29, 2008	
10.8*	Executive Severance Agreement between ACE and John Keogh	10-K	10.30	February 29, 2008	
10.9*	ACE Limited Executive Severance Plan as amended effective May 18, 2011	10-K	10.21	February 24, 2012	
10.10*	Form of employment agreement between the Company (or subsidiaries of the Company) and executive officers of the Company to allocate a percentage of aggregate salary to the Company (or subsidiaries of the Company)	8-K	10.1	July 16, 2008	
10.11*	Outside Directors Compensation Parameters	10-K	10.11	February 27, 2020	
10.12*	ACE Limited Elective Deferred Compensation Plan (as amended and restated effective January 1, 2005)	10-K	10.24	March 16, 2006	
10.13*	ACE USA Officer Deferred Compensation Plan (as amended through January 1, 2001)	10-K	10.25	March 16, 2006	
10.14*	ACE USA Officer Deferred Compensation Plan (as amended and restated effective January 1, 2011)	10-Q	10.7	October 30, 2013	
10.15*	ACE USA Officer Deferred Compensation Plan (as amended and restated effective January 1, 2009)	10-K	10.36	February 27, 2009	
10.16*	First Amendment to the Amended and Restated ACE USA Officers Deferred Compensation Plan	10-K	10.28	February 25, 2010	
10.17*	Form of Swiss Mandatory Retirement Benefit Agreement (for Swiss-employed named executive officers)	10-Q	10.2	May 7, 2010	
10.18*	ACE Limited Supplemental Retirement Plan (as amended and restated effective July 1, 2001)	10-Q	10.1	November 14, 2001	
10.19*	ACE Limited Supplemental Retirement Plan (as amended and restated effective January 1, 2011)	10-Q	10.6	October 30, 2013	
10.20*	Amendments to the ACE Limited Supplemental Retirement Plan and the ACE Limited Elective Deferred Compensation Plan	10-K	10.38	February 29, 2008	
10.21*	ACE Limited Elective Deferred Compensation Plan (as amended and restated effective January 1, 2009)	10-K	10.39	February 27, 2009	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.22*	ACE Limited Elective Deferred Compensation Plan (as amended and restated effective January 1, 2011)	10-Q	10.5	October 30, 2013	
10.23*	Deferred Compensation Plan amendments, effective January 1, 2009	10-K	10.40	February 27, 2009	
10.24*	Amendment to the ACE Limited Supplemental Retirement Plan	10-K	10.39	February 29, 2008	
10.25*	Amendment and restated ACE Limited Supplemental Retirement Plan, effective January 1, 2009	10-K	10.42	February 27, 2009	
10.26*	ACE USA Supplemental Employee Retirement Savings Plan (see exhibit 10.6 to Form 10-Q filed with the SEC on May 15, 2000)	10-Q	10.6	May 15, 2000	
10.27*	ACE USA Supplemental Employee Retirement Savings Plan (as amended through the Second Amendment)	10-K	10.30	March 1, 2007	
10.28*	ACE USA Supplemental Employee Retirement Savings Plan (as amended through the Third Amendment)	10-K	10.31	March 1, 2007	
10.29*	ACE USA Supplemental Employee Retirement Savings Plan (as amended and restated)	10-K	10.46	February 27, 2009	
10.30*	First Amendment to the Amended and Restated ACE USA Supplemental Employee Retirement Savings Plan	10-K	10.39	February 25, 2010	
10.31*	The ACE Limited 1995 Outside Directors Plan (as amended through the Seventh Amendment)	10-Q	10.1	August 14, 2003	
10.32*	ACE Limited 2004 Long-Term Incentive Plan (as amended through the Fifth Amendment)	8-K	10	May 21, 2010	
10.33*	ACE Limited 2004 Long-Term Incentive Plan (as amended through the Sixth Amendment)	8-K	10.1	May 20, 2013	
10.34*	ACE Limited Rules of the Approved U.K. Stock Option Program (see exhibit 10.2 to Form 10-Q filed with the SEC on February 13, 1998)	10-Q	10.2	February 13, 1998	
10.35*	Director Restricted Stock Award Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.1	November 9, 2009	
10.36*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	8-K	10.4	September 13, 2004	
10.37*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.4	May 8, 2008	
10.38*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-K	10.63	February 27, 2009	
10.39*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.3	October 30, 2013	
10.40*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	8-K	10.5	September 13, 2004	
10.41*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.3	May 8, 2008	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.42*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.4	October 30, 2013	
10.43*	Form of Restricted Stock Unit Award Terms (for outside directors) under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.2	November 7, 2007	
10.44*	Form of Restricted Stock Unit Award Terms (for outside directors) under the ACE Limited 2004 Long-Term Incentive Plan	10-Q	10.2	August 7, 2009	
10.45*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan for Messrs. Greenberg and Cusumano	10-Q	10.1	August 4, 2011	
10.46*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan for Messrs. Greenberg and Cusumano	10-Q	10.2	August 4, 2011	
10.47*	ACE Limited Employee Stock Purchase Plan, as amended	8-K	10.1	May 22, 2012	
10.48*	Form of Incentive Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.71	February 27, 2015	
10.49*	Form of Non-Qualified Stock Option Terms under the ACE Limited 2004 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.72	February 27, 2015	
10.50*	Form of Executive Management Non-Competition Agreement	8-K	10.1	May 22, 2015	
10.51	Commitment Increase Agreement to increase the credit capacity under the Credit Agreement originally entered into on November 6, 2012 to $1,500,000,000 under the Senior Unsecured Letter of Credit Facility, dated as of December 11, 2015, among ACE Limited, and certain subsidiaries, and Wells Fargo Bank, National Association as Administrative Agent, the Swingline Bank and an Issuing Bank	10-K	10.72	February 26, 2016	
10.52*	Chubb Limited 2016 Long-Term Incentive Plan	S-8	4.4	May 26, 2016	
10.53*	Form of Incentive Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.2	August 5, 2016	
10.54*	Form of Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.3	August 5, 2016	
10.55*	Form of Restricted Stock Unit Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.4	August 5, 2016	
10.56*	Form of Non-Qualified Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.5	August 5, 2016	
10.57*	Form of Incentive Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-Q	10.6	August 5, 2016	
10.58*	Form of Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-Q	10.7	August 5, 2016	
10.59*	Form of Restricted Stock Unit Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-Q	10.8	August 5, 2016	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.60*	Form of Non-Qualified Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-Q	10.9	August 5, 2016	
10.61*	Chubb Limited Employee Stock Purchase Plan, as amended and restated	S-8	4.4	May 25, 2017	
10.62*	Director Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan	10-Q	10.1	August 3, 2017	
10.63	Amended and Restated Credit Agreement for $1,000,000 Senior Unsecured Letter of Credit Facility, dated as of October 25, 2017, among Chubb Limited, and certain subsidiaries and Wells Fargo Bank, National Association as Administrative Agent, the Swingline Bank and an Issuing Bank	10-K	10.88	February 23, 2018	
10.64*	Form of Incentive Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers	10-K	10.89	February 23, 2018	
10.65*	Form of Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers	10-K	10.90	February 23, 2018	
10.66*	Form of Non-Qualified Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers	10-K	10.92	February 23, 2018	
10.67*	Form of Restricted Stock Unit Award Terms under the Chubb Limited 2016 Long-Term Plan for Executive Officers	10-K	10.93	February 23, 2018	
10.68*	Form of Incentive Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.94	February 23, 2018	
10.69*	Form of Non-Qualified Stock Option Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.95	February 23, 2018	
10.70*	Form of Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.96	February 23, 2018	
10.71*	Form of Restricted Stock Unit Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management	10-K	10.97	February 23, 2018	
10.72*	Chubb Limited Clawback Policy	10-K	10.99	February 23, 2018	
10.73*	The Chubb Corporation Key Employee Deferred Compensation Plan (2005)	8-K	10.9	March 9, 2005	
10.74*	Amendment One to The Chubb Corporation Key Employee Deferred Compensation Plan (2005)	8-K	10.1	September 12, 2005	
10.75*	Amendment No. 2 to The Chubb Corporation Key Employee Deferred Compensation Plan (2005)	10-K	10.20	March 2, 2009	
10.76*	Amendment No. 3 to The Chubb Corporation Key Employee Deferred Compensation Plan (2005)	10-K	10.32	February 28, 2013	
10.77*	Pension Excess Benefit Plan of The Chubb Corporation				X
10.78*	Amendment No. 2 to the Pension Excess Benefit Plan of The Chubb Corporation				X
10.79*	Amendment No. 3 to the Pension Excess Benefit Plan of The Chubb Corporation				X

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Original Number	Date Filed	
10.80*	Amendment No. 4 to the Pension Excess Benefit Plan of The Chubb Corporation				X
10.81*	Amendments to the Chubb U.S. Supplemental Employee Retirement Plan, the Chubb U.S. Deferred Compensation Plan, and Pension Excess Benefit Plan of The Chubb Corporation				X
10.82*	Form of Performance Based Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Swiss Executive Management				X
10.83*	Form of Performance Based Restricted Stock Award Terms under the Chubb Limited 2016 Long-Term Incentive Plan for Executive Officers				X
21.1	Subsidiaries of the Company				X
22.1	Guaranteed Securities				X
23.1	Consent of Independent Registered Public Accounting Firm				X
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	The following financial information from Chubb Limited's Annual Report on Form 10-K for the year ended December 31, 2020, formatted in Inline XBRL: (i) Consolidated Balance Sheets at December 31, 2020 and 2019; (ii) Consolidated Statements of Operations and Comprehensive Income for the years ended December 31, 2020, 2019, and 2018; (iii) Consolidated Statements of Shareholders' Equity for the years ended December 31, 2020, 2019, and 2018; (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2020, 2019, and 2018; and (v) Notes to the Consolidated Financial Statements				X
104	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)				

* Management contract, compensatory plan or arrangement

ITEM 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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

By: /s/ Philip V. Bancroft
Philip V. Bancroft
Executive Vice President and Chief Financial Officer

February 25, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Evan G. Greenberg **Evan G. Greenberg**	Chairman, Chief Executive Officer, and Director	February 25, 2021
/s/ Philip V. Bancroft **Philip V. Bancroft**	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 25, 2021
/s/ Annmarie T. Hagan **Annmarie T. Hagan**	Chief Accounting Officer (Principal Accounting Officer)	February 25, 2021
/s/ Michael G. Atieh **Michael G. Atieh**	Director	February 25, 2021
/s/ Sheila P. Burke **Sheila P. Burke**	Director	February 25, 2021
/s/ James I. Cash **James I. Cash**	Director	February 25, 2021
/s/ Mary A. Cirillo **Mary A. Cirillo**	Director	February 25, 2021
/s/ Michael P. Connors **Michael P. Connors**	Director	February 25, 2021

Signature	Title	Date
/s/ John A. Edwardson **John A. Edwardson**	Director	February 25, 2021
/s/ Robert J. Hugin **Robert J. Hugin**	Director	February 25, 2021
/s/ Robert W. Scully **Robert W. Scully**	Director	February 25, 2021
/s/ Eugene B. Shanks, Jr. **Eugene B. Shanks, Jr.**	Director	February 25, 2021
/s/ Theodore E. Shasta **Theodore E. Shasta**	Director	February 25, 2021
/s/ David H. Sidwell **David H. Sidwell**	Director	February 25, 2021
/s/ Olivier Steimer **Olivier Steimer**	Director	February 25, 2021
/s/ Frances F. Townsend **Frances F. Townsend**	Director	February 25, 2021

Chubb Limited
Annual Report
2020

ACCOUNTS FORM
PART OF THE ACCOUNTS
OF COMPANY
No. 5073085
COMPANIES HOUSE

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Form 10-K

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Swiss Statutory Compensation Report

Environmental Statement

Financial Summary

In millions of U.S. dollars except per share data and ratios	Year Ended Dec. 31, 2020	Year Ended Dec. 31, 2019	Percentage Change	Percentage Change Constant Dollars
Gross premiums written	$41,261	$40,124	2.8%	3.4%
Net premiums written	33,820	32,275	4.8%	5.5%
Net premiums earned	33,117	31,290	5.8%	6.5%
P&C combined ratio	96.1%	90.6%	NM	
Current accident year P&C combined ratio excluding catastrophe losses	86.7%	89.2%	NM	
Net income	3,533	4,454	-20.7%	
Core operating income	3,313	4,641	-28.6%	
Diluted earnings per share – net income	7.79	9.71	-19.8%	
Diluted earnings per share – core operating income	7.31	10.11	-27.7%	
Total investments	118,669	109,234	8.6%	
Total assets	190,774	176,943	7.8%	
Shareholders' equity	59,441	55,331	7.4%	
Book value per share	131.88	122.42	7.7%	
Tangible book value per share	87.69	78.14	12.2%	
Return on equity	6.2%	8.4%	NM	
Core operating return on equity	6.2%	9.0%	NM	
Core operating return on tangible equity	9.8%	14.6%	NM	

This document contains non-GAAP financial measures. Refer to pages 40-42 for reconciliations to the most directly comparable GAAP measures.

NM–not meaningful

Evan G. Greenberg
Chairman and Chief Executive Officer
Chubb Group

To My Fellow Shareholders

This was an unprecedented year. Over the last 12 months, Chubb withstood a global pandemic, a recession and a record run of natural catastrophes. Our 31,000-strong workforce in 54 countries performed substantially as normal despite working from home for much of the year. We never stopped writing insurance contracts, paying claims, offering risk engineering and protection services, and marketing our capabilities. I am proud of my colleagues: because of their efforts we concluded the year stronger than we started, with momentum, earning power and optimism for the future.

COVID-19 impacted us financially and operationally. We kept moving forward though, even as others pulled back. Our fundamentals are very strong, and we continued to invest and advance our strategy. Our digital transformation accelerated, both because of the substantial investments we have made over the years and the way shelter-in-place orders forced our employees to work digitally from home. We capitalized on improved market conditions in our commercial insurance businesses, propelling revenue growth and expanding margins. Our global footprint expanded, notably in Asia. We ended the year with a stronger balance sheet than we began. And we distinguished ourselves as industry leaders, both in our response to commercial insurance market conditions and on the issues impacting our industry caused by the pandemic.

I want to use this year's shareholder letter to explain why 2020 renewed my optimism about Chubb's future, despite the challenges of COVID. I also want to reflect on the many other challenges we faced that remain across the commercial, social and geopolitical landscape. The last year has been difficult in all parts of the world. The United States has faced particular upheavals having mishandled the healthcare response to the pandemic. We have watched widespread protests on our streets, drawing attention to problems of racial justice. Most shocking was the display of demagoguery in our nation's capital in January, scenes the likes of which we have not witnessed in our 240-year history. They left our country shaken and our international image tarnished. Make no mistake: I remain optimistic about the future of our country. But nothing is guaranteed if the U.S. does not step up its game.

We will continue to feel the health, economic and social impact of the pandemic – perhaps endemic is now a better description – despite vaccines and therapeutics. COVID is accelerating many global trends, from our reliance on new technologies to rising income inequality and political populism. Inside and outside our borders, support for economic globalization remained under pressure, with trade facing multiple headwinds. Relations between the U.S. and China sank to their lowest ebb in decades. And extreme weather showed the climate crisis looming more urgently than ever. The environment faced by a global company like Chubb is ever-more complex, and there are important lessons to draw from the last 12 months, both for our business and our country, as we move forward confidently into a new period of shareholder wealth creation.

Strong financial performance in the face of adversity

Chubb is a leading global insurance company and the world's largest publicly traded property and casualty (P&C) insurer, providing a wide range of products and services to individuals, families and businesses of all sizes. This year's pandemic hit our industry hard. Our company's published results were impacted both by the pandemic and how we chose prudently to recognize our ultimate exposures to it, as well as natural catastrophes. But Chubb's underlying financial results were very strong. I would draw your attention to four points in particular.

First, we produced core operating income of $3.3 billion, or $7.31 per share, down 28%, a noteworthy performance in the context of a quarter of earnings lost due to COVID. Our total net catastrophe losses for the year, which included our sizable COVID charge, were $6.12 per share, compared to $2.11 in the prior year and our five-year average of $3.51. But no handwringing: We are in the risk business, and we are paid to accept volatility.

Second, we delivered an underwriting profit, despite the year's events. Our published P&C combined ratio was 96.1%, a result that for many insurers would represent a normal or even good year. But hardly for us – our combined ratio has averaged 91.2% over the last 10 years, outperforming our competitors by nearly 7.7 percentage points. Our underlying combined ratio last year, which excludes CAT losses, told a very positive story that speaks to our earning power – more on that later.

Third, considering global economic conditions, Chubb produced strong top-line premium revenue growth. P&C net premiums written were $31.3 billion, up 5.4% in constant dollars. Within that our commercial lines grew over 9%, benefiting from improved underwriting conditions, while our consumer lines were down 2.5%, impacted by the pandemic's effects on economic activity. I'll go into more detail on that later, too.

Finally, Chubb is a balance sheet business. Our book and tangible book value grew, respectively, by 7.7% and 12.2% on a per share basis. At the same time, the strength of our loss reserves, the most important part of the balance sheet, improved throughout the year.

Growth and underlying profitability improved in most of our commercial P&C insurance businesses as a result of hardening markets globally. Chubb has long shown underwriting discipline and a willingness to trade market share for underwriting profitability. With nearly 70% of our portfolio in commercial lines, these favorable conditions represent a major opportunity for further growth. Our geographic presence, broad product portfolio, disciplined underwriting and expense management, consistency of risk appetite and strong financial position are all helping us push forward, despite the pandemic – increasing premium revenues and margins across our commercial businesses.

COVID-19 meant our consumer businesses faced more challenging times, particularly our sizable global personal accident and supplemental health (A&H) business and our international personal lines business that insures, for example, autos and household contents. Shutdowns reduced demand for personal insurance, though we expect these businesses to bounce back as the pandemic begins to recede and economies recover.

Due to pandemic-related exposures, we took a sizable charge in the second quarter. We estimated that our ultimate COVID-related losses would approximate $1.4 billion. Our decision to reserve as closely as we could to ultimate means we have now accounted for emerging pandemic-related losses, rather than taking the pay- or recognize-as-you-go approach many seem to be adopting – a mark of confidence in our risk management. On the other side of the coin, we have also been extremely cautious in recognizing the reduction in frequency of losses because of the economic shutdown.

We ended the year with a strong capital and liquidity position as measured by some $75 billion in total capital, $59 billion in equity, and record cash flow of $9.8 billion. Our AA ratings by S&P and A++ by AM Best are solid. We continue to maintain capital flexibility and we will keep investing in critical areas like our digital transformation and international expansion. We entered '21 in a stronger position financially, operationally and strategically, and this gives me confidence about our ability to manage the future.

Understanding the pandemic and our response

The ongoing pandemic is a unique catastrophe for insurers. Unlike a wildfire or a hurricane, which occurs in a specific place and then stops, the pandemic has no geographic boundary and no time limit. The COVID health crisis was exacerbated by shelter-in-place and travel restrictions, and consequent broad economic shutdowns. Simply to illustrate the magnitude, my guess is that, taken together, this combined health and economic crisis is likely over time to produce an industry insured loss in the region of $80 billion globally.

Our and the industry's COVID-related claims come from a broad range of exposures, principally in four areas. The first occurred as people suffered from ill health or death, from front-line workers to ordinary employees, affecting everything from life and health insurance to workers compensation. The second source of exposures come from liability-related insurance, including employment practices, directors and officers (D&O) and medical malpractice. Next are business interruption losses, from businesses that had coverage and were shut down during the pandemic. And finally, there are credit-related exposures, such as surety and trade credit.

Each year Chubb undertakes a catastrophe-type risk scenario planning exercise related to our risk management practices. To help us assess possible future claims, we modeled a global pandemic using the 1918 Spanish Flu as our template. We got the scale of financial impact on our business about right. But we missed two important points. First, we got wrong where the impact would be felt. We assumed most claims would come from health and loss-of-life exposures. In reality, more will come from the other exposures. Second, our operational disaster management process contemplated single geographic events with local or regional impacts, like an earthquake

or a hurricane. In the future such exercises will be conducted on a global basis as well.

Chubb's revenues were also impacted. Reduced business activity and closures decreased the premiums our insureds pay us, restrictions on travel meant less need for travel insurance, while recessions lead to fewer consumer purchases of everything from homes to cars.

Our initial COVID response focused on continuing to operate and keeping our people safe. We learned from our operations in China and around Asia, helping us prepare for when COVID arrived in the Western hemisphere. Our investments in technology paid dividends, allowing us to function almost normally when our global staff shifted to working at home – and we didn't miss a beat. We endeavored to help relieve our customers' suffering, providing premium discounts and extending payment terms, especially for many smaller businesses that needed breathing space. We took care of our workers, instituting a no-layoff policy during the acute phase of the lockdown. We also committed millions to pandemic relief efforts globally, in particular to feed people who have been going hungry in the tens of millions.

We moved quickly from playing defense to playing offense. We kept investing in digital innovations and foundational technologies, in people and in our businesses. We pushed ahead globally. Finally, we introduced important management changes, creating new leadership roles that reflected organizational priorities and recognized excellent performance.

In short, the pandemic did little to hinder our current performance as well as transformations underway in our company that will prove beneficial for years to come.

Industry conditions: a hard market

Property and casualty insurance is a cyclical business driven by supply and demand. Many of our competitors chase volume at the expense of good underwriting, underpricing risks and providing overly broad coverage to win business. Many also do not have good data, or do not use their data well, so they lack insight into a changing risk environment. Eventually those who undercharge get found out, paying the price in rising losses and disappearing margins. They become more risk averse or simply exit markets altogether. After years of underpricing, conditions began to improve two or three years ago, and accelerated in '20 – meaning the rates we are paid are rising and terms of cover are becoming more sensible.

At the same time, insurers face a more hostile loss environment. The average amount paid for a given claim in most classes of insurance is rising each year. The frequency of claims, meaning the number of claims per unit of exposure, is also rising in many classes of insurance, driven in part by rising costs from natural catastrophes and excessive litigation – trends that are likely to endure. This means loss costs have been rising while prices, until recently, have not kept pace. These rising costs also mean more insurers have been pulling back from risk. Chubb, with our culture of excellent underwriting and risk management, has not. And then to complete the picture, record low interest rates limit the ability of insurers to earn income from our invested assets.

"We moved quickly from playing defense to playing offense. We kept investing in digital innovations and foundational technologies, in people and in our businesses. We pushed ahead globally."

This is our kind of underwriting market. Chubb is increasing risk exposure because we can earn an improved risk-adjusted return. We are growing revenue and expanding our underwriting margins. You can see this emerging in our results. The current accident year combined ratio excluding catastrophes is a measure preferred by industry investors because it is a gauge of the underlying health of an insurer's current business, without the volatility of catastrophe losses. Last year, ours was 86.7%, compared with 89.2% prior year, an improvement of 2.5 points; 1.6 points of the margin improvement were loss ratio-related, with the balance expense ratio-related. If we were to include anticipated or expected CAT losses, which I believe is a still better measure, our combined ratio last year was 90.3% compared with 92.6% prior year. All things being equal – and we are in the risk business – I expect underwriting margins will continue to expand while our growth improves.

Chubb's growth priorities

We are a company of builders and we are relentless, even while in work-from-home mode. Let me highlight the growth engines of our company as well as the investments and innovations we are making to build on our capabilities.

Our commercial P&C businesses globally benefited from what I would describe as a flight to capability, predictability, consistency and professionalism that altogether equals quality. We offer clients our broad range of products and services, predictability in terms of capacity and underwriting approach, and rational and transparent pricing, terms and conditions. We have been consistent in our strategy. In previous soft market years, we shrank major businesses to maintain underwriting discipline. Now, as conditions allow for a reasonable return, we are increasing our exposure and winning market share. The result of this strategy is plain to see across our company's $21.8 billion global commercial lines, which grew 9.3% last year and had strong performance in a number of our multibillion-dollar commercial P&C divisions.

Our $21.2 billion North America Insurance franchise is Chubb's largest division with substantial presence in the United States, Canada and Bermuda. Its portfolio balance is 74% commercial lines, which grew 9.6% excluding agriculture, and 26% consumer lines, which grew 0.4%.

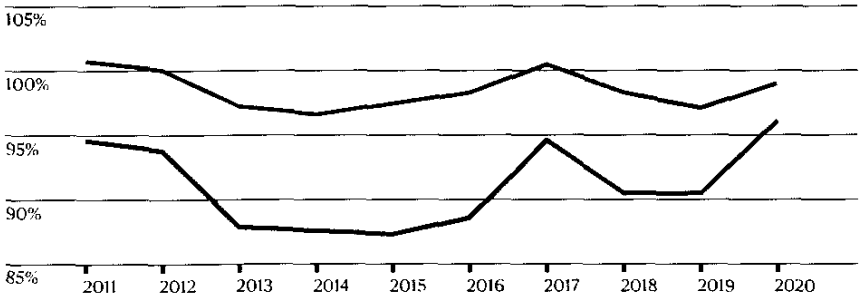
Chubb is the leading commercial P&C insurer in the United States, focused on large, medium and smaller business clients. Our $8.7 billion Major Accounts and Specialty division grew commercial lines premiums by 12%. In the U.S., Chubb serves 94% of the Fortune 1000 – an impressive market penetration. Yet, we have plenty of room for growth with those blue-chip clients, many of which place only a fraction of their insurance with us. We have two excess and surplus lines (E&S) businesses in North America: Westchester, our

P&C Combined Ratio versus Peers

The company's underwriting results have outperformed the average of its peers over the last 10 years.

[1] Includes AIG, Allianz, AXA, CNA, HIG, QBE, RSA, TRV, Zurich.

Source: SNL and company disclosures



Averages:	1 year	3 year	5 year	10 year
Peers[1]	98.9%	98.0%	98.5%	98.4%
Chubb	96.1%	92.4%	92.1%	91.2%

U.S. wholesale business, and Chubb Bermuda, which specializes in high excess, low frequency coverage for casualty, property, financial lines and political risks. Growth began to accelerate in 2019, and really took off last year – propelling Chubb to become the fourth largest E&S writer in the market, when Westchester and Chubb Bermuda are combined. Net premiums grew nearly 18% last year.

Our $5.7 billion North America middle-market and small commercial division also prospered in '20 as market conditions improved, but also because of the deep strength of our distribution network, with nearly 50 branches serving over 4,500 independent agents, making us the number three middle-market insurer. Net premiums written for commercial coverages grew 6.6%, the fastest since the ACE-Chubb merger in 2016. Against the backdrop of the pandemic, performance was boosted in particular by the breadth of our product range and industry specialization. While some sectors we serve struggled – entertainment and aerospace, for instance – demand in others was stronger, such as pharmaceuticals and healthcare.

Outside North America, our $9.3 billion Overseas General Insurance division operates in 51 global markets split into five international regions: Europe, Middle East & Africa, Asia Pacific, Latin America and Far East (Japan). Our portfolio balance is about 60% commercial lines, which grew 10.8% last year, and 40% consumer lines, which shrank 6.4%.

Last year, our $2 billion retail commercial P&C business in the United Kingdom, Ireland and Continental Europe, collectively called the Chubb European Group, experienced its best growth in years, with net premiums written up over 12%. Driven by the hard market, as well as the same business strengths I mentioned earlier, our European group is serving businesses of all sizes, from large domestic and multinational corporations to mid-size and small commercial businesses. I expect the current favorable market conditions to continue to benefit this large part of our company.

Elsewhere, some of our best commercial P&C results in 2020 came from international territories like Australia and a number of emerging markets. Our international retail commercial P&C business is benefiting from the same insurance market trends that boosted our North American performance. Even better were the results of our $940 million London market-based E&S wholesale business, which has a presence on the Lloyd's trading floor. Called Chubb Global Markets, this unit produced the single-fastest growth in the company last year with net premiums up 22%.

Our $9.5 billion global consumer P&C operations, which represents about 30% of the company, were heavily affected by the pandemic, shrinking 2.5% during the year. Our consumer franchise includes our $4.9 billion U.S. high net worth division, where we are the clear market leader; our $2.7 billion global A&H business; and our $1.9 billion international personal lines division.

As I have explained, the pandemic limited the kind of consumer activities that lead to insurance purchases. For example, sales activity in our North America-based Combined Insurance agency business, which specializes in face-to-face selling, slowed to a crawl, as did our worksite marketing business, where insurance is sold to employees at their place of work. Our travel insurance business outside the U.S. was

"Our commercial P&C businesses globally benefited from what I would describe as a flight to capability, predictability, consistency and professionalism that altogether equals quality."

grounded, while our automobile and cell-phone insurance lines also slowed. Response rates in our direct marketing operations in Asia and Latin America, such as telemarketing personal accident and health insurance to financial institutions' customers, were severely curtailed. Many consumer purchases simply declined so our consumer businesses everywhere – in Asia, Latin America, Europe and the United States – suffered.

Our North America high net worth business, Chubb Personal Risk Services, which serves the insurance needs of affluent individuals and families in the U.S. and Canada, was one notable exception. High net worth consumers were relatively less affected by the pandemic, and they were more likely to turn to a provider with a trusted, quality reputation. As a result, our business continued to expand. True high net worth clients, whom we call our Premier and Signature clients, are a major focus because they appreciate the coverages and services we provide. These segments grew 7.7%, whereas our mass affluent segment, which is more influenced by price, shrank 5.2%.

Our Asia-focused life insurance business was another exception. Operating in eight Asian countries, the business grew net premiums and deposits 11.4% to $2.8 billion. Segment income was up almost 10% year-on-year, triple what it was just three years ago. We also have life insurance operations in various South American countries led by Chile, where we recently completed the acquisition of Banco de Chile's life operations. Our life business continues to grow steadily, helped in part by Asia's relatively stronger recovery from the pandemic, and its earnings contribution to the company is becoming meaningful.

While their growth may have been subdued last year, our international consumer P&C businesses have been and remain critical engines of our growth, where they are well placed to serve the rising middle classes of developing Asia and Latin America. We continued to invest last year in

Long-Term Operational & Financial Outperformance (10 Years)

Chubb has delivered on its financial goals and outperformed its peers across most metrics

	Premium & Earnings Growth		Under-writing Profit	Book Value Growth		Average Return on Equity & Return on Tangible Equity		Valuation
	Net Premiums Written ('10-'20)	Operating Earnings ('10 '20)[1]	P&C Combined Ratio ('11-'20 Avg.)	Book Value per Share (12/10-12/20)[2]	Tangible Book Value per Share (12/10-12/20)[2]	Average Return on Equity ('11-'20)	Average Return on Tangible Equity ('11-'20)	Market Cap Growth (12/10-12/20)[3]
Chubb	147%	25%	91.2%	93%	62%	10.0%	13.9%	233%
Avg Peers[4]	6%	11%	98.9%	50%	62%	9.0%	11.3%	58%

[1] AIG excluded due to negative earnings in 2010
[2] AIG adjusted for U.S. Treasury Equity Investment
[3] AIG excluded due to impact from government intervention
[4] Peers include AIG, Allianz, AXA, CNA, Hartford, Travelers, Zurich
Annual metrics through full year 2020 actuals: Net Premiums Written, Operating Earnings, P&C Combined Ratio, Average Return on Equity and Average Return on Tangible Equity; Point-in-time metrics through December 2020 actuals: Book Value per Share, Tangible Book Value per Share and Market Cap

expanding their capabilities in terms of products, technology and, most importantly, distribution partnerships. We will see them return to growth once the pandemic subsides.

Chubb signed an impressive 21 new distribution partnerships last year with a range of partners, including airlines, consumer finance companies and digital platforms. Digital channels are yielding exciting results as we sell simple personal accident, life, supplemental health and personal lines insurance products via e-commerce companies, digital banks and digitally native players seeking to add insurance to their services, as well as through traditional channels like banks and agents as they digitize. These new products and partnerships only serve to enhance our growth capabilities when demand returns. They are the seeds we plant for future growth.

The changing specter of risk

Our industry is managing two powerful forces that are changing the nature of risk – climate change and the legal environment. Again, both are enduring trends. Sizable weather-related loss events are more common, from a record U.S. hurricane season to wildfires in California, Australia and Greece, as well as flooding in areas like China's Yangtze River. The industry's global insured natural catastrophe losses came in at $76 billion, up from $54 billion prior year and one of the costliest on record.

As a result, Chubb posted pre-tax net losses of $1.7 billion last year from natural catastrophes, compared to $1.2 billion in 2019. This was $648 million more than we planned when calculating our expected CAT losses at the start of the year. With every year that passes, the amount we expect to pay out from a given set of exposures increases, a reality of climate change.

Given our business of assuming risk, it is our job to better understand evolving exposures that emanate from climate change. Flood models and evaluation tools are improving to consider factors like elevation and flood defense. Wildfire modeling now includes factors like topography, vegetation, drought conditions and wind patterns – allowing us to assess more accurately the risks faced by an individual or a business, as well as aggregations of risk in a given geography. These tools are far from perfect – they don't represent absolute truth – but they continue to advance and provide us with greater insight. Chubb is investing a lot of time and money to improve our risk-based analytics, not just in climate but in many areas of risk.

The worsening legal environment is systemic and, for clarity, coming from two principal sources. The first is litigation as a business, in which lawyers drive up insurance costs with excessive or abusive claims. Litigation that should provide fair redress has metastasized into a huge money-making system. This abuse of late is partially fueled by increased litigation funding, a speculative new asset class that is more akin to horse racing. Rising legal costs are unnecessarily costly for society and a tax on business.

The Boy Scouts of America litigation is a case in point. When the group filed for bankruptcy in 2020, it faced about 1,700 claims alleging sexual abuse by scout leaders. That number grew 55 fold to 95,000 claims, driven by what *The Wall Street Journal* described as "a sophisticated new tort machine" that raises investment to fund speculative litigation and push

"Our industry is managing two powerful forces that are changing the nature of risk – climate change and the legal environment. Both are enduring trends."

new claims on a massive scale, often by recruiting claimants via misleading mass advertising and social media campaigns. Tens of thousands of the claims upon preliminary inspection appear to be invalid or fraudulent. We deeply sympathize with the victims of sexual abuse, but justice is not served by the filing of specious claims.

The second force behind our worsening legal environment is "social inflation," meaning the populist notion that if something goes wrong in modern society, someone must also be at fault. Set against a backdrop of rising anti-corporate sentiment, this phenomenon has been driven by a range of factors, from changing definitions of legal liability to more costly jury awards.

The overall result has been a severe and ultimately unsustainable inflation in legal awards and legal costs that translates to higher costs of insurance. To highlight the problem, the total expense of legal costs and compensation paid in the U.S. tort system in 2019 amounted to $510 billion, or 2.3 percent of GDP. The U.S. needs litigation reform at both the state and federal level to combat the abusive power of the trial bar and address out-of-control awards. Working with the wider industry, this remains a Chubb priority.

The challenging environment was exemplified writ large during the pandemic over the issue of business interruption. Our industry first came under attack from some in the political establishment, who considered federal and state legislation to force insurers retroactively to pay out on risks not covered in our policies. Chubb became involved early on, assuming a public profile and helping to lead an industrywide effort to defend the sanctity of our contracts. We argued that these measures were unconstitutional, not to mention that they would bankrupt the industry and do huge damage to the financial system as a whole. The industry, supported by regulators, managed to blunt this threat – although attempts to enact legislation continue at the state level.

Then came the trial bar, which initiated a spree of litigation that attempts to twist the intent of contracts and reinterpret insurance contract language to force pay-outs in situations that in most cases insurers never intended to cover, and in which no premium was charged for the risk, specifically when city and state governments mandated pandemic-related business closures. This litigation relied on implausible arguments that COVID causes direct physical loss or damage to a business's property, in the same way as a fire. The industry has been pushing back successfully in the courts, for now at least. But there are still some 1,500 lawsuits in the U.S. against insurance companies on this business interruption issue.

Investing in a "lower for longer" world

Chubb's earnings come from both sides of the balance sheet: on the liability side we generate underwriting income from the exposures we take for customers; on the asset side we generate income from our investment portfolio, which is mostly investment-grade bonds. We invest conservatively because we have a fiduciary responsibility: those funds represent policyholder claim reserves and shareholder capital. The pandemic has affected our investment returns, driven substantially by the emergency fiscal and monetary responses to the pandemic.

Governments around the world were right to support individuals and business. Fiscal responses in large economies like the U.S. have been sizable and successful. Without additional stimulus, the U.S. was likely to grow in the range of 5% to 6% during 2021, with unemployment hovering below 5%. With the additional $1.9 trillion stimulus passed by Congress in early '21, which in my judgment is excessive and not well directed, there is a risk of overheating with a rising specter of inflation. U.S. debt levels have already ballooned above 100% of GDP, with over 80% of government tax revenue going to debt service and entitlement programs. The federal budget deficit topped more than $3 trillion during 2020, or 15% of GDP – the highest since World War II – and that is before the additional $1.9 trillion. Our deficits have the potential to crowd out future private sector and real public investments. Respectable economists now often say "deficits don't matter," mostly because borrowing costs are so low. But this won't last. Rates will rise, pressuring our fiscal position and potentially the dollar's status as the reserve currency, as history shows.

As the pandemic struck, central banks throughout developed economies launched massive asset purchases, which pushed up money supplies and drove global yields to zero. These actions were historic. While these policies were justified to bridge a potential economic and financial market chasm, the Fed, in my opinion, has overstayed its "easy money" mandate. These policies distort markets, push investors into riskier assets and inflate financial valuations, as witnessed by the recent extraordinary rise in global equity markets. Excessive monetary

easing also exacerbates inequality, benefiting the wealthy who have exposure to financial markets while the unemployment rate remains elevated.

In my judgment, the Fed's zero-rate policy does little to sustain economic activity. In fact, higher short-term rates and phasing out asset purchases would alleviate market distortions, discourage speculative investor behavior and have little impact on investment in the real economic sector.

With all that said, for the next several years investors face the prospect of a "lower for longer" yield environment and will be challenged to earn reasonable rates of return. In response, Chubb has systematically diversified a greater percentage of its portfolio out of traditional fixed income into asset classes that offer higher prospective total returns. Similar to our underwriting discipline, we only invest where we can earn adequate risk-adjusted returns. This strategy is difficult to deploy given the current lack of investor discipline and excessive liquidity that has flooded global financial markets, but we are patient. While our strong operating cash flow helped to mitigate the impact of low rates, in 2020 we earned pre-tax adjusted net investment income of $3.6 billion, down 1.8% from the prior year. Our invested assets stood at $119 billion as of December 31 and generated a book yield of 3.4% versus average new money rates of 2.3%.

Delivering for shareholders

Tangible book value growth is our ultimate measure of shareholder wealth creation. Chubb is a growth company, measured as growth in book and tangible book value over time. The difference between these two measures is goodwill, which is an income-producing asset when an investor buys wisely. We have grown shareholder wealth consistently over the years, and faster than our competitors (see chart on page 8). Last year, book value grew 7.4%, while tangible book value grew 11.9%, both supported by our results as well as by Fed actions that have created significant asset inflation. Excluding unrealized appreciation, our tangible book value grew 6.3%.

Our 2020 core operating ROE was 6.2%, again impacted by the COVID and other CAT losses. Our 10-year average core operating ROE, for comparison, is 10.0%. As a growth company in the risk business, we retain surplus capital and this dilutes our ROE by about 200 basis points. This policy has been consistent and has served shareholders well by growing tangible book and book value per share, predominantly by growing the company. As I have explained on other occasions, at current interest rate levels, we expect to achieve a 12% to 15% ROE on deployed capital, which excludes surplus capital, over the medium term. It is worth noting that when interest rates rise, every hundred basis points of additional yield in our investment portfolio produces about 150 basis points of ROE.

Beyond what we need for risk and growth, we return surplus capital to shareholders. For more than two decades, we have raised our dividend, earning us a place in the "dividend aristocrats" club. We aim for a target dividend pay-out ratio over time of approximately 30%, which will vary depending on our earnings in a given year. In total, we returned $1.9 billion this year, comprising $1.4 billion in dividends and $516 million in repurchases, for a total pay-out of 58% of our earnings. We repurchased our shares at an average price of $144, which equals a price-to-book of 1.1 – a

"Respectable economists now often say 'deficits don't matter,' mostly because borrowing costs are so low. But this won't last."

price that is an absolute bargain. Our share price ended the year at $153.92, down 1.1% for the year with a positive total return of 1.4%.

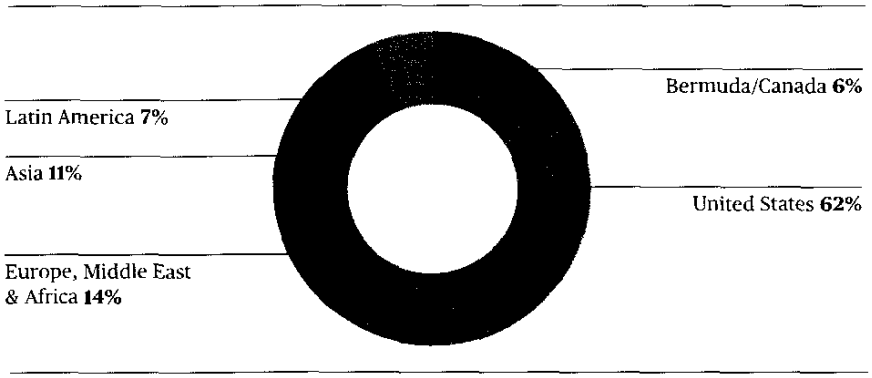
A big shove for our digital transformation

Chubb is building a company to thrive in the digital age. For a number of years, we have invested in technology and talent, building new tools, developing new skillsets and ways of doing business – and we continue to do so with considerable progress and momentum. Last year shelter-in-place gave a big shove to this transition. When we went into lockdown, our ways of working changed as we leveraged capabilities already in place. But our organizational consciousness and habits changed too, as employees and customers embraced digital technologies. To give one simple example, our teams held 2.3 million Webex meetings last year, adding up to nearly half a billion minutes.

Chubb's historic investments mean modern foundational technologies are now in place in many areas. From this base we are developing further innovations and scaling them across the company. Robotics and straight-through processing are fully automating transactions. Deep learning augments underwriting insights. Internet of things (IoT) applications prevent losses from happening to our insureds. Machine learning and sophisticated algorithms

Geographic Sources of Premium

2020 gross premiums written



Premium Growth by Geography

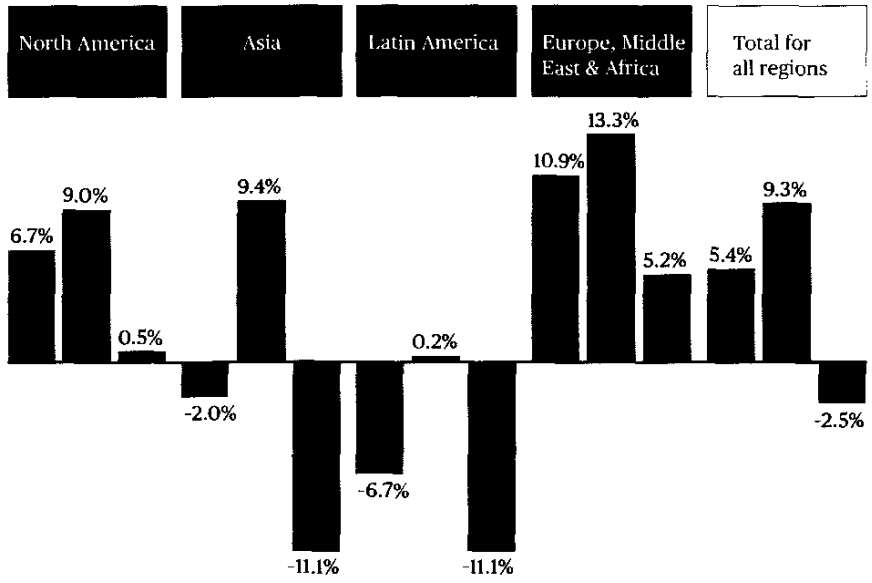
Percentage change in P&C net premiums written in 2020 versus 2019 in constant dollars

Overall growth

Commercial businesses

Consumer businesses

Data includes all sources of insurance and reinsurance P&C net premiums written by geography



automate everything from risk analysis to fraud detection and more. Analytics and lots of internal and external data are improving underwriting, claims and customer insights. New tools are improving the experience of customers and distribution partners, particularly consumers and small businesses in Asia, Latin America and the U.S. For example, Chubb Studio℠, our global "insurance in a box" platform, streamlines our connectivity to partners' digital channels and embeds what we do into what they do.

In sum, we are changing the way insurance operates enterprisewide at Chubb – from the customer experience, to underwriting and pricing risk, to servicing and paying claims, to innovating new products.

Digital then offers the chance to simplify products and the process of buying insurance. Last year in our North American small commercial business, we launched a powerful capability that streamlines the customer experience, using external data, web scraping and other AI capabilities to fill out insurance details for a customer or their agent – reducing the average time spent completing an application by 65%. Similarly, digital helps us to pay claims more quickly. Using automated decision rules and AI capabilities for simple accident and health claims in both Mexico and Singapore, we are learning how to reach the goal of near-instant payments. This will spread to more coverages and geographies in the future.

Technology innovations help our clients in other ways. IoT-enabled sensors monitor, detect and prevent losses in both commercial and consumer environments. Adoption of IoT services accelerated in several commercial and consumer sectors in 2020. By remotely monitoring hospitals, college campuses and even private wine collections, Chubb technology prevented costly water or temperature damage through early detection, saving clients millions in potential losses.

Our ultimate aim remains to use digital technology to modernize and reinvent the business of insurance. Some view insurtech start-ups as pioneers in this area. While these companies mix good customer experiences with clever marketing, most are not picking off better insurance risks and selecting against traditional insurers. Nor are they reinventing insurance and risk-taking. By contrast, digitization enabled us to process over $3.4 billion in business last year without human interaction between the agent and Chubb. In 2021, more than $200 million of premium will be delivered through direct digital channels, representing 40% compound annual growth from 2018, with an estimated 10 million policies sold. The results: a better customer experience, considerable efficiency savings for the company and, importantly, an underwriting profit from the actual business – something many high-flying insurtechs will not achieve for years, if ever.

Chubb's investment journey in China

Our investment in China's Huatai Insurance Group is one further example of Chubb's long-term approach to global growth. China is the world's second-largest and fastest-growing major economy, whose growth paused only briefly as it managed to avoid a crunching post-COVID recession. Its financial

"We are changing the way insurance operates enterprisewide at Chubb – from the customer experience, to underwriting and pricing risk, to servicing and paying claims, to innovating new products."

services industry, including insurance, is evolving and developing – just like its economy as a whole. China has opened its door wider to investment by proven foreign financial services companies to aid in the development of the sector. Our investment is not without its risks, given both the evolving geopolitical relationship between the U.S. and China, and the realities of the local environment that must be managed by any major foreign investors in the Chinese market. But in our judgment these risks are worth taking.

I have been doing business in China for 30 years, while for two decades our company has been a long-term, patient investor in Huatai, a medium-sized financial services holding company with P&C, life insurance and asset management subsidiaries, as well as more than 17 million customers and 600 offices. We now stand at an important threshold. In 2019 we were given the green light to increase our ownership, which meant Huatai became the first domestic financial services holding company to convert to a Sino-foreign joint venture. We currently own 47%, which makes Chubb the controlling shareholder under Chinese law.

We have plans to increase our stake further to achieve full majority ownership, subject to Chinese regulatory and shareholder approvals. Our Chinese growth plans embody the mix of patience in strategy and impatience in execution that stands as a hallmark of our company. For Chubb's shareholders, the upsides in the coming years are significant, as they can be for China's economic development as a whole.

Running our global race better

For decades, the U.S. held an unchallenged position of global leadership, which benefited our nation economically, socially and politically. It achieved peace and prosperity for our people. This position was not free, but its benefits clearly outweighed the costs. Today the U.S. is in a new leadership contest with China – and we clearly need to run our own race better and with confidence.

China is a rising regional and global power seeking greater economic, geopolitical and security influence. We are destined to compete in many areas. At the same time, we want to co-exist productively and cooperate where it serves our mutual interests, for instance on climate, terrorism, the pandemic and economic recovery. A new U.S. administration provides a chance to move past the emotions that dominated the last few years.

One need not admire China's autocratic system to recognize their competence and determination. As a nation, we have long failed to address perennial problems. We focus huge attention, and rightly so in many instances, on domestic social issues, but we too often do so without relating back to our competitive profile. And while important, it leads us too often to look inward and lose perspective of ourselves and our place in the world – a world we depend on. Meanwhile, a competitor like China focuses on nation-building and economic prosperity with discipline and a sense of individual sacrifice.

The U.S. has great advantages, and I would never bet against us. We are bordered by two friendly neighbors and protected by two oceans. Our natural resources are abundant. We have a huge private sector and an innovation culture with world-leading technology. Our government institutions have underlying strengths, despite the challenges of the last year. Our civil society, rule of law and system of market capitalism foster great economic dynamism while attracting talented people from all around the world. We are at our core inclusive: to be an American is an idea; you don't have to be born here to be one of us. All of this gives me confidence in America's future – but only if we act now to protect what is good in our system, address our weaknesses and reassert our position of leadership.

Running a better race starts at home. Two decades of globalization produced great prosperity but left too many facing inequalities of wealth and opportunity. Too many workers lack the education and skills required to compete in our digital economy. Too few Americans feel globalization's benefits in their income, turning instead to protectionism in an attempt to look after their own. With so many of our fellow citizens unable to succeed in our free market system, is it any wonder they turn to those who say the system is rigged?

We should lead a new phase of globalization, recognizing that we are doing too little to democratize its benefits, and focus urgently on renewing our national competitive profile. Rebuilding domestic competitiveness requires investments in people and infrastructure as well as dependability of supply chains for critical and strategic items. For example, we can raise workforce skills at scale by retooling community colleges that deliver practical training. R&D and physical infrastructure can be improved with investment in 5G networks and cutting-edge artificial

intelligence systems, as well as by repairing and upgrading rail networks, ports and highways. Investment in modernizing our military and security is a major priority. Foundational technologies matter, from quantum computing and biotechnology to advanced manufacturing and smart batteries. Finally, we should open our borders with a large-scale migration strategy for both skilled and non-skilled working age people. After all, if we want to grow our economy faster, grow the labor force.

Reasserting U.S. global leadership requires us to work harder abroad, too, and especially in Asia. We should be working with friends and allies to enhance the liberal rules-based trading system. We can still call out problems when we see them, as with the World Trade Organization, an organization that borders on irrelevance and is in need of reform. But we should also take back our leading role rewriting the rules of global commerce and trade. The U.S. was the architect of the Asia-focused Comprehensive and Progressive Agreement for Trans-Pacific Partnership agreement. We should rejoin that agreement. Just as important is that we begin to develop more ambitious next-generation digital and data technology agreements, bringing together the advanced industrial democracies of Asia, Europe and North America.

China lacks America's strong innovation culture but it has advantages in the new digital and data economy with its huge population and limited data privacy rules. Countries like the U.S. have fewer people and stronger privacy protections, limiting the flows of data that fuel AI-driven industries. To maintain leadership requires working together with our allies with the aim of developing new rules of the road for exchanging, investing, protecting and standard-setting in the areas of technology and data, from IP protection to the governance of advanced technologies like AI – allowing us to compete at scale.

We can and should defend U.S. interests against predatory behavior while advancing our view of a renewed liberal world order based on our values, while leaving the door open for China to participate. As an objective, we cannot and should not want to hold China down. Nor should we assume we can pressure Beijing to change its behavior. Let China decide what is best for them.

Chubb is a global company. We have benefited from economic globalization over recent decades, a system built on the bedrock of Western leadership. If that leadership is not renewed, our world risks sliding into an era marked by rising protectionism and divided by geopolitical conflict. But if the U.S. steps up once again to reinvigorate our competitive profile and wealth-creating capability, there is no reason why our country and our global system should not continue to prosper in the future.

Renewing American democracy

In the short-term, the U.S. is suffering three interlinked crises. We are enduring a health crisis, a pandemic-driven economic recession, and a political and social crisis made worse by COVID. The crisis of democracy, whose severity was made more clear since our election, culminating in what happened in our Capitol building in January, is not going away. It should act as a wake-up call to all of us who love our country.

"If the U.S. steps up once again to reinvigorate our competitive profile and wealth-creating capability, there is no reason why our country and our global system should not continue to prosper in the future."

The roots of this crisis have long been clear in the rise of populist extremes on both the right and left, driven by leaders who promote conspiracy theories, division and polarization. January's events follow logically from a situation in which a third or more of our fellow citizens still believe voter fraud swayed our election. The sight of members of Congress attempting to subvert the will of the people and stand in the way of what is largely a ceremonial affirmation of the electoral college vote was unacceptable. So were the displays of symbols of hate, bigotry, violence and anti-Semitism in our Capitol building.

At the end of the day, the facts are the facts – there was no widespread election fraud. Just because you don't like the political outcome doesn't give you the right to subvert our democracy and the rule of law. But the private sector shares responsibility here, too, given the way social media has left many citizens in parallel realities, in which falsehoods spread and truth is discarded. Rebutting these lies and reeducating those who have come to believe them will be a complex task – but they are crucial to rebuilding the foundations of our democratic system.

Here a sense of balance and perspective is needed. There is much to be proud of in our nation. The 2020 election was among the safest and fairest in our history. More than two thirds of eligible Americans voted, more than in any election for a century. Those polls were well managed, county by county and town by town, by public-spirited fellow citizens. Our legal and government institutions – the bedrock of our democratic system – did their jobs and continued to enforce the rule of law. But we also should be in no doubt of the deep damage polarization on the right and the left has and is doing to our political system, our image in the world, and our ability to get our own house in order and address our perennial problems. We look to elected leaders from both parties to set an example by their respect for our democratic norms and processes. And we require leaders of good character to put self-interest aside, govern in the interest of the nation and address the many pressing problems we face.

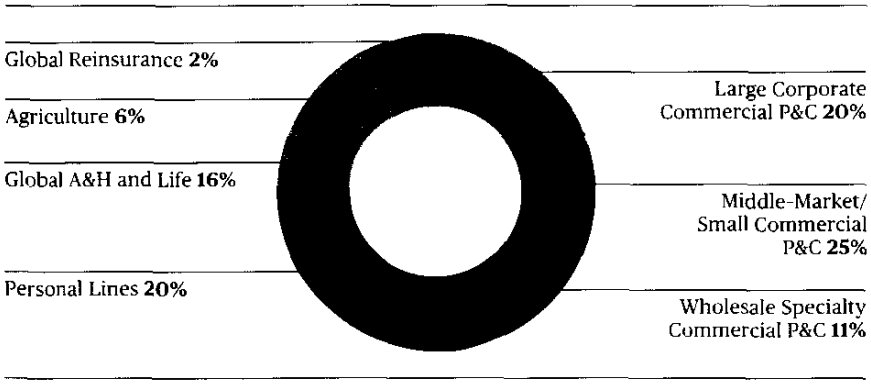
Combating COVID and future pandemics

Many nations were ill-prepared for COVID-19. But we should now focus on managing the coming stages of this pandemic and preparing for the next. Our country struggled to manage COVID but deserves great credit for our scientific and technology prowess that enabled the development of multiple vaccines at record pace. This virus is going to be with us for a long time, and COVID-19 will not be our last pandemic. We live in a globalized world. Throughout history pandemics have been tied to trade and people movement. We require better preparations to manage future outbreaks when they arrive.

For starters this means improved pandemic management, beginning with new global healthcare intelligence that allows data to be shared before pathogens cross borders. This is an area where the U.S. and China could cooperate more closely, no matter how difficult that process is. Those that tackled the pandemic well, most of which are in Asia, can act as models for others. Countries like Taiwan and South Korea reacted quickly, from closing borders to introducing social distancing rules. Masks were widely worn while policymakers developed rapid testing and digital contact tracing systems.

Premium Distribution by Product

2020 net premiums written



Similar measures in the U.S. could help ensure future outbreaks are controlled and widespread lockdowns avoided or minimized, while also avoiding situations in which businesses are forced to stay fully or partially closed for prolonged periods. And let's face it: We also need to find ways to reconcile our commitments to privacy and the demands of a public health emergency. Well-meaning rules designed to protect personal data limit our ability to manage a future pandemic. Severe moments of crisis often require temporary sacrifice of individual freedoms for the greater good, be that to ensure face masks are widely worn or contact tracing data is easily but securely shared.

On pandemic costs, we at Chubb proposed a public-private partnership to manage the expense of business interruption. Under this proposal the Federal Government would cover "tail risk," meaning the financial risk of an infrequent event of catastrophic size. Our industry is limited in our wherewithal to take risk by our capital and surplus. U.S. insurers hold around $800 billion, which we use to meet not just COVID claims but also everything else. We cannot meet trillions in costs for pandemic-related shutdowns. But by providing a backstop against potentially huge losses, the government would enable insurers to provide business interruption coverage for pandemics.

There is precedent for this model in the reforms that insure against catastrophic terrorism after 9/11. Under Chubb's model, the government would mostly cover losses from smaller businesses. Medium and larger businesses would buy commercial insurance at actuarially sound rates. The government gets paid for the use of its balance sheet – we seek no handouts. This model also need not be overly expensive, if we improve pandemic management to contain future outbreaks, reducing the need for widespread and prolonged shutdowns. If the Federal Government doesn't work with insurers, the next pandemic will remain uninsurable for business interruption coverage. But if a new partnership is possible, in combination with other pandemic measures, we can greatly limit both its damage and cost.

Our journey toward racial equity

The past year has been marked by further social upheavals centered on the historical injustices of racism. The causes of these events are complex, dating back to our nation's imperfect birth. But far more must be done to tackle bigotry and racism in the U.S., particularly as faced by Black people. We are focused on what we can do at Chubb, and we are dead serious about playing our part.

We started by striving to enhance our understanding of racism and that journey continues. Internally we have been conducting an ongoing listening program and we completed a professional assessment to help us learn about the Black employee experience in America, as well as the impact our existing policies, practices and behaviors have on our workforce. We are now turning these insights into a practical plan to improve racial equity in recruitment and career development. We aim to promote a greater sense of belonging for Black colleagues, by improving communication and support.

We will do more over the coming years. We recognize the role of leaders and are mobilizing the commitment of all employees in building a more

"Far more must be done to tackle bigotry and racism in the U.S., particularly as faced by Black people. We are focused on what we can do at Chubb, and we are dead serious about playing our part."

inclusive culture, where all feel equally equipped to contribute and succeed, as well as recognized and promoted. We aim to increase the racial mix of our workforce, in part by requiring racial diversity on candidate slates and including more Black talent on interview panels. We have set targets to improve rates of hiring and promotion. We are building a racially diverse pipeline of early career talent in the industry. And we are setting up new processes to identify and mitigate unconscious bias in hiring, promotions and performance assessments. All of this won't be easy, and it will take time.

Our philanthropy and external citizenship programs can help advance these goals, too. The Chubb Charitable Foundation is investing in education and skills-based training, with emphasis on Black people. This includes funding scholarships supporting people of color from underrepresented communities, providing internships to help recipients gain experience with Chubb and potentially enter our talent pipeline. The Chubb Rule of Law Fund is addressing issues of racial justice, for instance, via support for Equal Justice USA, an organization working to reform the justice system with programs that increase empathy and understanding between community residents and police officers.

Ultimately Chubb aspires to create a culture of anti-racism, moving beyond simply not being racist. It means no innocent bystanders. It is not enough to say that you yourself are not racist. We all need to act to stop racist behavior. Chubb's success relies on our ability to attract, develop and retain the most talented people. We believe there is rarely a contradiction between pursuing profit and supporting society in areas like racial justice. My role as chief executive is to build and sustain a thriving enterprise that provides a valuable service to society. And it is only by serving society that we maximize returns over the long term for our shareholders. The community is where we operate. If my customers and employees aren't happy, then we will not be able to provide the service society needs. All of this is part of what we call good corporate citizenship.

A critical year for climate change

Chubb recognizes the reality of climate change and the substantial impact of human activity on our planet. As insurers we have a front row seat to the catastrophes climate change brings. Our first responsibility is to use our risk management expertise to provide products and services that protect individuals, businesses and communities. But we have a further role to play through price signals.

Insurers transmit what we know about climate risks to clients. We charge higher prices if data tells us an area is likely to be hit by hurricanes, flooding or wildfire. This helps contribute to decisions as to where to live or where to invest as a business. We also use data and knowledge to promote new coverages and take risk, or demonstrate new ways to mitigate exposures. For example, this year we launched a demonstration project working with The Nature Conservancy and the city of Miami to restore a historic waterfront park that will use nature-based solutions such as mangroves to reduce storm surge, and hence flooding.

Climate change also creates opportunities to serve new markets and develop new products. We are already a leader in providing insurance to renewable energy and clean tech companies. Last year we appointed a new climate sustainability manager to identify and implement climate-related products including more mitigation services. In the end, only governments and the private sector together can create the kind of wholesale change that will hold warming to 1.5°C above preindustrial levels. Chubb can and will play our part.

The risks of a cyber catastrophe

After the last year we should all think anew about global and national-level catastrophic risks, especially the risk of a catastrophic cyber-attack. Chubb is a major insurer of cyber risks. As the world digitizes, we see that the frequency, severity and sophistication of cyber-attacks are growing, both from government and non-government actors. Our vulnerability is increasing because of greater interconnectedness, creating systemic risks that are large, growing and not easy to detect and control.

The risk to our economy and critical national infrastructure is grave, as we saw in late 2020 when state-sponsored hackers penetrated a number of major U.S. government and corporate institutions. There have been myriad further major data breaches over the recent years. The U.S. and its industrial world allies are investing heavily in cybersecurity capabilities, but our systems are not superior to those that seek to attack us. In fact, recent events show we are continuously playing catch-up. Cyber-attacks and cyber-terrorism should concern us in particular because they share many characteristics with pandemics, given they can cause catastrophes that are limited neither by time nor

geography. Hackers can cripple digital infrastructure, from power grids to telecoms systems. Such attacks could end up costing many trillions of dollars and exceed the balance sheet wherewithal of insurers in the process.

Much as with the pandemic, this requires the government and private sector to work together, backed by clearer legal frameworks nationally and internationally. We need new tools, new safeguards and new ways of sharing information. For example, the government should outlaw ransomware payments to remove the financial incentive of this criminal activity. The U.S. and like-minded nations need to work together quickly to develop new forms of collective cybersecurity, including deterrence and joint punishments against cyber criminals and malign state actors.

Conclusion: Chubb's coming year of opportunity

I want to end by thanking so many of our people for their resilience and leadership. Our employees responded magnificently to the challenges they faced. This was not without sacrifice: the pandemic took a tragic toll on Chubb in human terms, leading to the untimely deaths of a number of our valued colleagues, alongside hundreds of others who fell ill and thankfully recovered. I want to commend all those who worked to help our clients and partners with urgency and care. Our technology group rose to the challenge of rapid virtual operations. Our operations and IT teams helped us work normally, keeping our people safe while moving forward with business priorities. Our underwriting organization delivered extraordinary performance. In a record year for natural catastrophes, our claims professionals and engineering groups helped us deliver on the promises we make to everyone we insure. Finally, I would like to thank our knowledgeable and committed board of directors: their support helped give all of us the confidence to do our jobs well over the last year.

I want to pay particular credit to three senior colleagues who took new roles this past year. In December I appointed John Keogh as President and Chief Operating Officer – a title that reflects his achievements and importance to our company, and his substantial leadership over his 14 years as my colleague. A few months earlier I appointed two other trusted partners: John Lupica as Vice Chairman and President of our North America Insurance operations, and Paul Krump to the position of Vice Chairman, Global Underwriting and Claims. All three are great leaders and managers. They are highly knowledgeable, hands-on and execution-oriented. They are citizens of our culture, and their behaviors exemplify it. They are all builders – and I can pay no higher tribute than that.

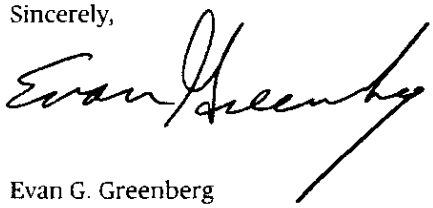
Our company will return to a more normal style of working during '21. We know our future workplace will not look like the past. There will be more opportunities to work from home, and we expect travel to be lower, too. That said, Chubb remains a "work from office" company. I believe you can't build a corporate culture remotely, nor can you plan, innovate and train effectively, and generate sustained energy and vitality, if your workers are not in one place much of the time. As the pandemic recedes, Chubb is coming back to the workplace – and we will stay back at work.

Many of you will remember this year because of COVID-19. But to me what mattered was not simply how quickly Chubb came to grips with the pandemic, but how we then began pushing forward to seize strategic opportunities. We got back onto the front foot quickly. Indeed, we barely came off the front foot. We started the year in good shape, and by the end we were in even better condition, with strong growth and earnings generation possibilities and a reinforced balance sheet, with capital ready to be deployed. Given the difficulties we encountered last year, that was a huge achievement.

We have the capabilities to deliver sustainable profitable growth. We will take further advantage of hardening commercial markets and press on toward the moment when our consumer operations bounce back. We have the best people in the business, as well as the culture, leadership, command and control structures, and technology we need to prosper. We are a disciplined culture of builders and risk-takers. We pride ourselves on execution excellence. All of this adds up to capitalizing on opportunity globally.

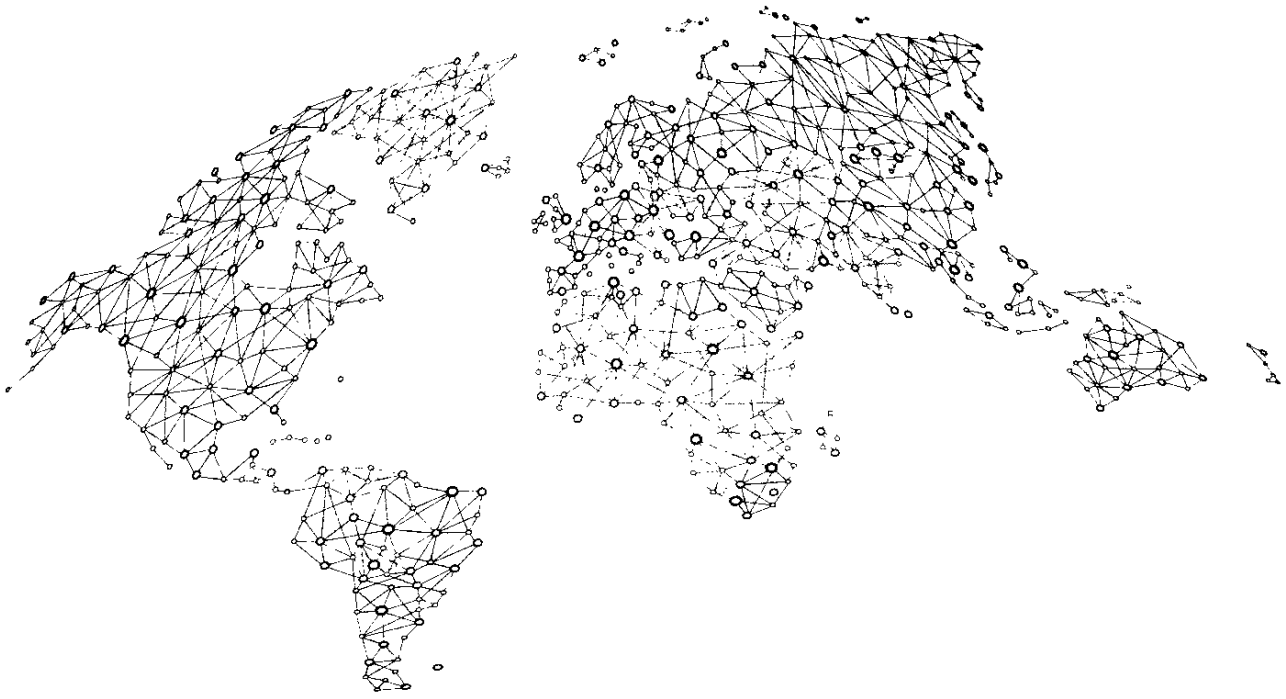
This is the underlying story of our resilience over the last year, and the basis of my future optimism. We have entered a new period of wealth creation for our company. I have never been more optimistic about the future, or about the benefits that you, our shareholders, will continue to receive.

Sincerely,



Evan G. Greenberg
Chairman and Chief Executive Officer

A Global Leader in Property and Casualty Insurance



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Australia
Austria
Belgium
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Brazil
Canada
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Poland
Portugal
Puerto Rico
Russia
Saudi Arabia
Singapore
South Africa
Spain
Sweden
Switzerland
Taiwan
Thailand
Tunisia
Turkey
United Arab Emirates
United Kingdom
United States
Vietnam

A local presence in 54 countries and territories around the world

Chubb has operations in the countries and territories listed here and can help clients manage their risks anywhere in the world.

Chubb Senior Operating Leaders

Juan Luis Ortega

Executive Vice President,
Chubb Group;
President,
Overseas General
Insurance

Paul J. Krump

Vice Chairman,
Chubb Group;
Global Underwriting
and Claims

John Keogh

President and
Chief Operating Officer,
Chubb Group

John Lupica

Vice Chairman,
Chubb Group;
President,
North America
Insurance

Chubb's senior operating leadership includes the company's President and Chief Operating Officer, the presidents of North America and Overseas General insurance operations, and the leader for global underwriting and claims.

North America Insurance

Key Financial Results

Dollars in millions

Total North America P&C Insurance

2020	
Gross premiums written	$26,321
Net premiums written	$21,240
Combined ratio	92.9%
Current accident year combined ratio excluding catastrophe losses	84.2%

North America Commercial P&C Insurance

2020	
Gross premiums written	$18,233
Net premiums written	$14,474
Combined ratio	93.7%
Current accident year combined ratio excluding catastrophe losses	85.3%
Segment income	$2,925

North America Personal P&C Insurance

2020	
Gross premiums written	$5,572
Net premiums written	$4,920
Combined ratio	91.1%
Current accident year combined ratio excluding catastrophe losses	78.7%
Segment income	$679

North America Agricultural Insurance

2020	
Gross premiums written	$2,516
Net premiums written	$1,846
Combined ratio	92.0%
Current accident year combined ratio excluding catastrophe losses	90.5%
Segment income	$148

Chubb's insurance businesses in North America serve clients ranging from the largest multinationals, middle-market companies and small businesses to successful individuals and families, and the agriculture community.

For property and casualty insurers operating in North America, 2020 was anything but a typical year, with the unprecedented number of natural catastrophes, civil unrest claims and activity related to the COVID-19 pandemic. At the same time, the commercial P&C market continued to firm, creating opportunity for Chubb to bring its capabilities to more clients at more reasonable terms, conditions and rates.

"In 2020, we traded in one of the best insurance markets we've seen in two decades. But we also faced the challenges of the pandemic and the large number of catastrophes. How Chubb performed in this market was exceptional," said John Lupica, Vice Chairman, Chubb Group and President, North America Insurance. "Insurance was classified as an essential service, and Chubb was on the job 24/7. We consistently served our customers and delivered our products and services in extraordinary situations without missing a beat."

Paul Krump, Vice Chairman, Chubb Group, Global Underwriting and Claims, spoke about how the company's strengths in underwriting and claims create opportunities in this kind of a market. "In a firm market, we have to be on our front foot. When pricing moves, there inevitably is a flight to quality. With our strong balance sheet, global reach, underwriting expertise and stable presence in the market, it has been a great time to build or deepen a relationship with Chubb. Interwoven with the quality of our brand is our claims reputation. We're problem solvers, we're empathetic and we see claims as delivering on our promise."

"The hurdles of 2020 were a true test of every part of our company in every part of the world, including our businesses in North America," said John Keogh, President and Chief Operating Officer of Chubb Group. "We often use words like resilience, nimbleness and adaptability to describe Chubb. In large part, we demonstrated those to be true in this challenging year. By many measures, the efforts of our team distinguished Chubb and burnished our leadership position in the industry."

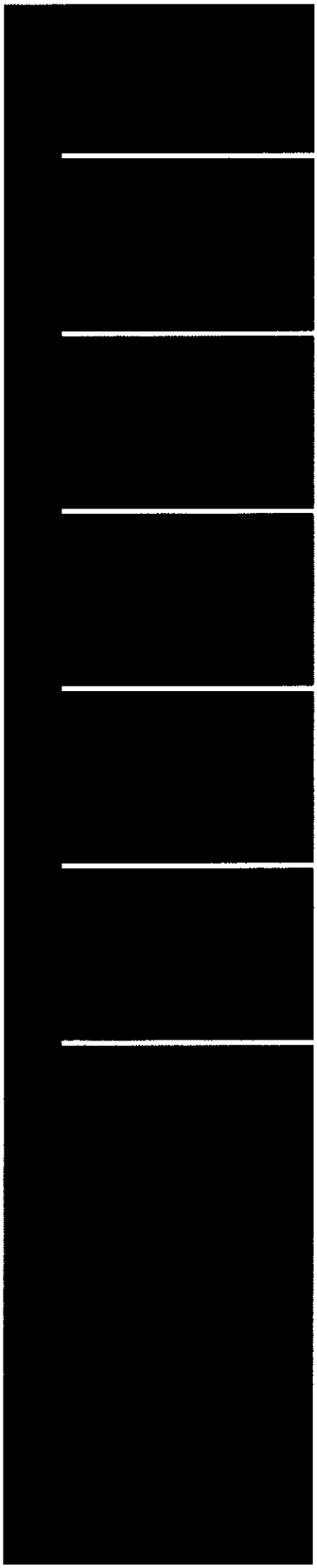
Total net premiums written for the company's North America P&C insurance businesses were $21.2 billion, up 6.4% from 2019. Chubb reported a combined ratio of 92.9% for its North American P&C insurance operations. Excluding catastrophe losses, the current accident year combined ratio was 84.2%.

North America Commercial P&C Insurance

Chubb is the largest commercial lines insurer in the U.S., offering a full range of traditional and specialty products for businesses of all sizes. Net premiums written for North America Commercial P&C Insurance increased 8.2% from 2019. The combined ratio for the segment was 93.7%. The current accident year combined ratio excluding catastrophe losses was 85.3%. Underwriting income was $887 million, and segment income was $2.9 billion.

Major Accounts, Chubb's P&C business unit that serves large corporations, is recognized for the breadth and depth of its product and service offerings, technical underwriting experience, superior client service, and global platform built

Chubb's North America Insurance Business Units



Commercial P&C insurance products for the large corporate market sold by retail brokers

Commercial P&C insurance products for middle-market and small businesses sold by independent agents and retail brokers

Personal lines coverage, including home, auto, valuables, umbrella and recreational marine insurance, for successful individuals and families sold by independent agents and brokers

Commercial P&C excess and surplus lines sold through wholesale brokers

Excess liability, financial lines, property and political risk coverages sold by large international brokers

Crop insurance from Rain and Hail and farm and other P&C coverages sold by agents and brokers

to service complex, bespoke insurance programs in many countries around the world. It's a high-touch business where Chubb, with its strong client- and broker-centric culture, has developed long-term, enduring relationships.

In 2020, the division's retention rate was nearly 90%, all while achieving more adequate rates, terms and conditions. Chubb was also distinguished by its proactive approach to engaging virtually with brokers and clients during the pandemic.

"We stayed in constant communication with our distribution partners and our clients during the work-from-home conditions of the pandemic and converted all of our traditional marketing programs to virtual, from our participation in industry events such as RIMS and CIAB to Chubb's own Client Advisory Boards," said Mr. Lupica. "Listening and staying connected were more important than ever."

In the excess and surplus (E&S) lines market, **Westchester** specializes in hard-to-place casualty, property and specialty lines for middle-market and small businesses. Westchester serves wholesale brokers who distribute these products, including specialty classes such as financial lines, product recall and cyber. Traditional brokerage accounts for about 60% of Westchester's premiums, with the balance from its small business and programs divisions.

For several years, Westchester had shrunk net premiums written in the face of a soft market. The market dynamic shifted in 2019, a trend that accelerated in 2020. Westchester's broad product set and investments in talent and digital technology positioned it to seize opportunities in this changing market. For the year, the business grew 13.4%. "Conditions in

"Insurance was classified as an essential service, and Chubb was on the job 24/7. We consistently served our customers and delivered our products and services in extraordinary situations without missing a beat."

– John Lupica

the E&S market became much more favorable and Westchester responded," said Mr. Lupica.

A similar story played out in **Chubb Bermuda**, which provides excess coverage in four product lines: casualty, property, financial lines and political risk. Chubb Bermuda operates with a high severity/low frequency business model and offers broad coverage and sizable capacity to clients and brokers around the world.

"We had watched this business shrink as it became less needed through the softest part of the cycle. But we retained our people and our operations," said Mr. Lupica. "In 2020, Chubb Bermuda reasserted its relevance in a major way, becoming a go-to market for clients looking for excess capacity."

Commercial Insurance is Chubb's division that provides P&C coverage to small and medium-sized companies with revenues up to $1 billion. In 2020, net premiums written in the division grew 6.4%.

In the middle-market segment, Chubb is distinguished by its more than 25 industry practices, each handled by teams of experienced underwriting, claims and risk engineering professionals who understand the particular exposures of that industry. The business's core package product is complemented by the industry's largest offering of standard and specialty coverages, including auto, workers compensation, marine, cyber, environmental, multinational, directors and officers (D&O) and errors and omissions (E&O) coverages.

Pandemic-related lockdowns and other restrictions created opportunities for Chubb to stand out. Chubb risk engineers, who bring technical expertise to help clients anticipate and minimize costly exposures, quickly shifted from conducting in-person site visits and ergonomic surveys to offering these services virtually. As manufacturing clients retooled their operations to produce ventilators, personal protective equipment (PPE) and other essential products to fight the pandemic, Chubb supported them by re-underwriting in-force policies. With its large life sciences industry practice, the company played a meaningful role in providing insurance coverage for companies racing to develop vaccines and therapeutics to fight COVID-19.

The pandemic, which left many commercial buildings vacant or underutilized, also brought new urgency to embrace loss prevention solutions that can detect and prevent property damage. During 2020, Chubb ramped up its program to install Internet of Things (IoT) devices that can detect water leaks, changes in temperature or humidity, and vibrations that cause damage to critical infrastructure and valuable assets. Through this innovative initiative, Chubb is helping commercial property managers monitor and identify threats to property before damage occurs. With IoT devices, Chubb has already helped hospitals, research labs, universities, libraries and other commercial property clients avoid millions of dollars of damages and disruptive, time-consuming repairs.

In the small business segment, which Chubb entered only five years ago, the company earned the highest customer satisfaction rating in the J.D. Power 2020 U.S. Small Commercial Insurance Study, which profiles the experiences of small business insurance customers with 50 or fewer employees. Chubb was recognized for its performance in five customer satisfaction factors: claims, interaction, billing and payment, policy offerings and pricing.

Throughout 2020, Chubb continued to invest in digital technology and data and analytics capabilities that make it easier for customers and agents to do business with the company while driving superior risk selection across the portfolio. New products, including personal accident and supplemental health coverage, were added to Chubb's award-winning digital platform, Marketplace, which enables agents to quote, issue and service their small and middle-market business accounts. Chubb cut average quote times and reduced the number of underwriting questions. In 2020, two-question underwriting went live for select classes of business, proving our ability to sufficiently underwrite select risks utilizing web-scraping technology to obtain answers to other important questions. Two-question underwriting will be expanded in 2021.

When the pandemic hit, small businesses faced extraordinary financial burdens. To provide support to its clients, Chubb suspended cancellation and non-renewal of coverage for non-payment and offered

discounts and credits for reduced exposures for commercial policies. Chubb also purchased $1 million in gift cards from small business clients around the country, which were donated to healthcare workers and other first responders on the front lines of the pandemic in their communities.

North America Agricultural Insurance

Chubb's Rain and Hail subsidiary is the leading crop insurer in North America. The business serves approximately 125,000 farmers, insuring more than 100 different crops on 80 million acres. Chubb's North America agriculture segment includes Chubb Agribusiness, which is focused on P&C offerings that provide commercial agricultural coverages for manufacturers, processors and distributors. Chubb also offers property insurance for farms and ranches, including hobby farms, complex corporate farms and equine services.

Crop insurance is a public-private partnership that operates with a proven model. While the results of the business are not typically correlated with the P&C insurance market cycle, crop insurance is a business with CAT-like risks, such as the severe derecho that damaged crops in the Midwest in August. Despite the storm's magnitude, it was on balance a nearly average year for crop insurance, with improved growing conditions over the prior year. In 2020, Chubb increased its policy count and continued to distinguish itself by delivering superior service and getting claims payments into the hands of farmers quickly. During the year, Chubb also acquired the renewal rights to the farm and agriculture business of Allianz Global Corporate & Specialty North America. For the year, the segment produced a combined ratio of 92.0%. Segment income was $148 million. Net premiums written were $1.8 billion.

North America Personal P&C Insurance

Chubb is the leading provider of personal lines insurance for affluent and high net worth individuals and families in the U.S. and Canada. Chubb Personal Risk Services is known for its broad product offering, superior claims and risk consulting services, and access to Chubb's extensive branch network in the U.S. and Canada. Chubb clients also benefit from the company's global presence, which offers protection for their assets around the world.

While personal lines results globally were negatively impacted by the pandemic, Chubb's business was an exception given the customer segment it serves, with net premiums written for the North America Personal P&C Insurance segment up 2.8% to $4.9 billion. The combined ratio was 91.1%. The current accident year combined ratio excluding catastrophe losses was 78.7%. Segment income was $679 million.

Investments in digital capabilities in recent years, including its mobile app and web portal, helped prepare Personal Risk Services to serve clients during the pandemic. With hurricanes and wildfires on the rise in 2020, a growing number of clients used the portal to sign up for automated updates. During the year, Chubb proactively sent out approximately 700,000 email and text alerts to clients.

During the lockdown, Chubb teams also conducted more than 30,000 virtual claims adjusting and risk consulting visits. When it was necessary for adjusters to go onsite, they did so safely for themselves and their clients.

Chubb continues to offer innovative ways to help protect clients from the everyday risks of owning a home and automobile as well as the unique risks that come with achieving considerable success in their lives and professions. Examples include Chubb Property Manager℠, which provides policyholders with assistance for second homes that suffer damage from hurricane-force winds, and Wildfire Defense Services, which monitors and protects homes threatened by wildfire. In 2020, Chubb began to roll out an IoT monitoring program for homes with wine collections. The devices can alert private collectors via a smartphone app to fluctuations in temperature, humidity and other conditions in their wine storage that can significantly alter the quality of the wine.

Chubb also joined with HODINKEE, a preeminent resource for modern and vintage wristwatch enthusiasts, to make it easy to obtain insurance coverage for watches. With HODINKEE Insurance, underwritten by Chubb, watch owners can obtain insurance via the app or online in just a few steps, streamlining the process and eliminating paperwork.

"Across all of our businesses, we focus on delivering our culture. We call it One Chubb," said Mr. Lupica. "It's about unifying the organization to deliver an experience for our distribution partners and clients that feels like you're dealing with a small company, even as you have access to Chubb's complete expertise in underwriting, claims and risk engineering along with our product breadth, branch network and global reach. We strive to deliver that organization every day."

Overseas General Insurance

Key Financial Results

Dollars in millions

Overseas General Insurance	
2020	
Gross premiums written	$11,449
Net premiums written	$9,335
Combined ratio	95.4%
Current accident year combined ratio excluding catastrophe losses	89.4%
Segment income	$904

"Our continued focus on executing our strategies contributed to the strong performance of our commercial P&C businesses in 2020, and positions our consumer businesses well as economies reopen."

– Juan Luis Ortega

Chubb's international general insurance operation is comprised of two main businesses: one with retail operations in five regions of the world and the other an E&S lines business in the London wholesale market and a presence at Lloyd's.

The firming market for commercial P&C insurance was evident in several regions and markets around the world in 2020, most strongly in the United Kingdom, Continental Europe, Australia and Hong Kong, to name a few, as well as Chubb Global Markets, the company's London market wholesale E&S business. Consumer businesses, including A&H and personal lines, particularly travel insurance, were severely curtailed by reduced economic activity related to the pandemic.

Overall, Overseas General Insurance generated net premiums written of $9.3 billion in 2020, up 2.9% in constant dollars. Commercial P&C businesses grew 10.8% while net premiums written in consumer businesses decreased 6.4%. The combined ratio for the year was 95.4%. The current accident year combined ratio excluding catastrophe losses was 89.4%, and segment income was $904 million.

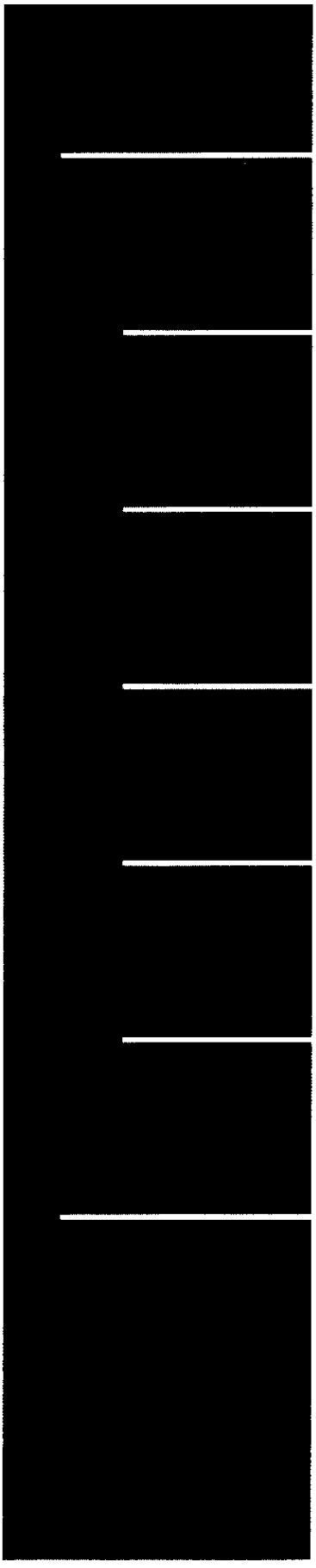
"In all of our businesses, we continued to focus on executing our strategies," said Juan Luis Ortega, Executive Vice President, Chubb Group and President, Overseas General Insurance. "In retail commercial P&C, that means further segmenting our client base, focusing on customized, specialized products and services for large corporate accounts, a hands-on approach to meet the needs of middle-market businesses, and enhancing the digital technology and platforms to deliver for our small business customers. At the same time, we made further progress expanding our distribution capabilities, through independent agents and brokers as well as our growing array of affinity partnerships. This focus contributed to the strong performance of our commercial P&C businesses in 2020, and positions our consumer businesses well as economies reopen."

"Among the many things that 2020 taught us is the power and importance of the diversity of our operations and businesses around the world," said Mr. Keogh. "We have invested over many years to build our local operations globally. The results of our international general insurance business were strong given the unprecedented impact of the pandemic, and are a testament to the strength of the Chubb franchise."

"It was incredibly rewarding to see our local overseas claim teams handle the myriad of unique COVID-19 issues that arose," said Mr. Krump. "The leaders were out-front ensuring their teams delivered practical solutions, while never compromising quality or integrity."

The **Europe** region posted the strongest growth internationally, reflecting both the firm market and the region's mix of business, which includes a higher share of commercial P&C than Chubb's other regions. Europe, which encompasses 20

Chubb's Overseas General Insurance Business Units



Commercial P&C, A&H and traditional and specialty personal lines sold by retail brokers, agents and other channels in five regions:

Operations in 20 countries comprised of P&C commercial lines and consumer lines, including A&H and specialty personal lines

Operations in 14 countries and territories serving commercial customers and consumers with P&C, A&H and personal lines

Operations in nine countries serving commercial customers with P&C products and consumers through A&H and personal lines

Operations in Japan serving commercial customers with P&C products and consumers through A&H and personal lines

Operations in seven countries serving commercial customers with P&C products and consumers through A&H and personal lines

Commercial P&C excess and surplus lines and A&H sold by wholesale brokers in the London market and through Lloyd's

countries, produced $3.2 billion of net premiums written, with significant growth in Major Accounts, Chubb's P&C business unit that serves large corporations. In a firming market, Chubb's capabilities and strengths – best-in-class service, underwriting expertise, an extensive product offering, and a broker- and client-centric culture, among others – enabled the business to benefit from a flight to quality.

"Major Accounts is an exceptional franchise," said Mr. Ortega. "As the overall market struggled to get capacity, Chubb's consistency, reliability and risk appetite enabled us to grow in a substantial way with major brokers and multinational clients. In addition, the actions and preparations by Chubb in advance of Brexit ensured a seamless experience for our distribution partners and clients."

Chubb's **Asia Pacific** region generated net premiums written of $2.4 billion, down 2.2% from prior year in constant dollars. The strong performance in commercial P&C, including double-digit growth in the small commercial portfolio in Australia, was offset by the pandemic-related impact on A&H and personal lines businesses.

China, the largest economy in Asia and the second-largest in the world, continues to be an important long-term opportunity for Chubb. In 2020, the company increased its ownership stake in Huatai Insurance Group, a holding company with P&C, life and asset management subsidiaries, to

"It was incredibly rewarding to see our local overseas claim teams handle the myriad of unique COVID-19 issues that arose."

– Paul J. Krump

47.1%. When pending agreements are completed, Chubb is expected to own a majority. The group's insurance operations have over 600 branches and 17 million customers.

Chubb's **Latin America** region generated net premiums written of $1.9 billion, down 6.2% from 2019 in constant dollars. While no region was spared from the health and economic consequences of the pandemic, the toll was particularly severe in Latin America, which impacted Chubb's personal lines auto insurance business in Mexico as well as A&H across the region. On the positive side, the region produced growth in middle-market commercial P&C and signed numerous distribution partnerships that will provide future growth opportunity.

Chubb's **Far East** region, which encompasses Japan, celebrated in 2020 its 100th anniversary operating in the nation. Net premiums written were flat from 2019 in constant dollars, as double-digit growth in property and financial lines offset the impact of the pandemic on the consumer travel insurance business. The region also continued to develop its offerings for middle-market and small companies, expanding its industry practices and adding cyber insurance to the product offering.

Chubb Global Markets, which provides global access to specialist underwriters in aviation, energy, financial lines, marine, political risk and credit, property and A&H, had a year of exceptionally strong growth. Like Chubb Bermuda and Westchester in North America, Chubb Global Markets stands as an example of the company's underwriting discipline, patience and ability to shift from defense to offense. As competitors began to cut capacity or withdraw from the market, Chubb was able to bring its capabilities and risk appetite to bear. In 2020, growth in net premiums written exceeded 20% for the second consecutive year.

Continuing to diversify and expand Chubb's distribution capabilities remained a priority in 2020. In its international general insurance operations, the company's products and services are offered through 23,000 independent agents and brokers and directly to the customers of affinity partners and sponsor organizations through telemarketing and digital and mobile channels.

Worldwide, Chubb has hundreds of distribution partnerships with banks, retailers, airlines, mobile network operators and gig economy companies, among other industries.

"Our ever-expanding digital capabilities, coupled with our product breadth and claims service, have made Chubb the distribution partner of choice for companies that want to add digital insurance options to their own product and service offerings," said Mr. Ortega.

In 2020, the company launched Chubb Studio℠, a global platform that simplifies and streamlines the distribution of the company's consumer and small business insurance products through its partners' digital channels around the world. The platform has proved particularly popular in Southeast Asia and Latin America, already integrating 10 products with 25 partners across these regions. One of these was with Nubank, Brazil's largest digital bank, which launched a fully digital life insurance offering. Nubank Vida, underwritten by Chubb, entered the Brazilian insurance market with a fast, seamless and personalized capability available to its 30 million customers. The new, simple life insurance product, which is available on the bank's mobile app, requires only three questions, and quotes, bill payment, account management and claims are all transacted digitally.

"Our global capabilities have taken years to build and they are not easy to replicate. They are a sustainable competitive advantage for Chubb."

– John Keogh

Chubb's "insurance in a box" platform also created opportunities to think about new health products – and bring them to market quickly. When there was an outbreak of dengue fever in Singapore, Chubb's partner DBS, the largest banking group in Southeast Asia, wanted to offer its customers insurance coverage. The capabilities of Chubb Studio enabled the team to quickly develop and deploy Mozzie Protect, a custom product that provides financial protection for DBS customers affected by the disease. When the pandemic hit, nearly 1 million bank customers signed up for Chubb's free 30-day coverage for COVID-19. Chubb expanded its partnership with Grab, the Singapore-based technology company that offers ride-hailing transport services, food delivery and payment solutions, offering their customers on-demand per-day personal global travel insurance. Grab also moved swiftly to offer its drivers and delivery partners coverage that provided a lump sum payment upon diagnosis of COVID-19.

In Latin America, Chubb secured 15 new distribution partnerships in 2020 with both traditional partners as well as digital natives. Initiatives with existing distribution partners included the launch of multi-channel campaigns for residential, personal lines and commercial P&C coverages with Banco de Chile. Chubb doubled the number of products and services offered digitally through its exclusive long-term relationship with Mexico's Citibanamex.

In France, Chubb and Aon launched in early 2021 a new digital platform for small and medium-sized businesses. The new Aon platform, which is powered by CoverWallet, an Aon company, offers more than 10 insurance products from Chubb, and reduces the time it takes for a business owner to get insurance from days to minutes.

"Our long-term investments in agent- and broker-facing digital platforms have opened up a whole new market opportunity for us in small commercial. In Europe, Australia and Latin America, we are processing submissions on a straight-through basis that requires no human intervention," said Mr. Ortega.

While digital technology is streamlining and enhancing products, services and processes, Chubb knows that relationships and staying engaged with clients and distribution partners are essential. "Throughout the organization – from junior underwriters up through the ranks – there was great connectivity, engagement and communication with our partners and customers, even as we operated remotely," said Mr. Ortega. "Chubb was proactive, we stood out, and it made a difference."

Chubb's international general insurance operations benefit from the movement of people within the organization. One of the principal ways the company develops talent is by promoting intra- and inter-regional mobility that exposes employees to different markets and cultures. In the past three years, nearly 300 colleagues have undertaken international assignments. Every year, more than 1,200 colleagues are promoted into a new job or granted expanded responsibilities. These career progression opportunities recognize the performance of colleagues and create an environment for continuous learning.

"Our global capabilities have taken years to build and they are not easy to replicate. They are a sustainable competitive advantage for Chubb," said Mr. Keogh. "We don't take them for granted and we continue to invest in them to make them increasingly relevant to our customers across the globe."

Life Insurance

Key Financial Results

Dollars in millions

Life Insurance	
2020	
Net premiums written	$2,514
Segment income	$401
Total international life insurance net premiums written and deposits	$2,757
International life insurance segment income	$166

"We met the challenges of 2020, and continued to make progress introducing and enhancing digitally enabled products, making it easier for agents and distribution partners to interact with us and serve customers."

– Russell Bundschuh

Chubb's Life Insurance segment comprises two businesses. Chubb Life is an international life insurer, primarily focused on Asia, that provides protection and savings-oriented life insurance products to individuals and groups. Combined Insurance provides personal accident and supplemental health insurance coverages to consumers in North America.

For the year, the Life segment generated net premiums written and deposits of $2.5 billion, up 5.1%, or 5.6% in constant dollars, from prior year. Segment income was $401 million, up 9.8%.

Chubb Life

Chubb Life serves the needs of consumers through a variety of distribution channels including primarily captive agents, but also through banks, retailers, brokers, independent agents and direct marketing. Chubb Life has operations in seven Asian markets – Hong Kong, Indonesia, Korea, Myanmar, Taiwan, Thailand and Vietnam. In China, the company is also a joint venture partner in Huatai Life, a fast-growing life insurer that serves more than 1.3 million customers with a broad portfolio of savings and protection products. Together, Chubb Life and Huatai Life have 540 offices, more than 4,500 employees and approximately 100,000 agents.

While digital distribution is a growing channel for Chubb Life, face-to-face contact remains an important way the business engages with consumers – through captive agents, independent agents and at the branches of bancassurance partners. The arrival of COVID-19, and the associated lockdowns and restrictions, created challenges that impacted the business, particularly in the second and third quarters. And while Chubb Life has focused on protection-oriented products in recent years due to the low interest rate environment, consumers who bought savings and investment products tended to save less in the uncertain market created by the pandemic.

In 2020, despite the challenges, earnings were up 9.4% to $166 million. International life insurance net premiums written were up 22.1% year over year.

"We quickly moved from a face-to-face to a digital environment for selling and handling transactions," said Russell Bundschuh, Senior Vice President, Chubb Group and President of Chubb Life. "In Vietnam, for example, the investments we made in technology enabled us to shift practically overnight to virtual sales meetings and straight-through processing of applications."

An important milestone was achieved in September, when Chubb Life surpassed 100,000 captive agents in China and the rest of Asia for the first time. "We got very creative in how we approached digital recruiting," said Mr. Bundschuh. "Our recruiting was strong throughout 2020 and will position us well as economies open up and consumer activity resumes."

Early in 2020, Chubb Life launched a health and well-being initiative called Chubb LifeBalance, which is a virtual coach that offers policyholders real-time feedback on their level of activity, eating habits, sleeping patterns, and mental and emotional well-being. Chubb LifeBalance can track and recognize more than 115 activities, from walking, running, swimming and

basketball, to table tennis and yoga through a connection with a tracking app or wearable fitness device. By the end of 2020, Chubb LifeBalance was available in Hong Kong, Thailand and Korea.

Following its entry into Myanmar in late 2019, Chubb Life last year introduced its first products in the nation, including an education life insurance plan combined with life protection and savings features, as well as several affordable coverages for illness, accident and hospitalization. For existing policyholders, Chubb Life provided COVID-19 coverage for no additional premium through March 2021. Following the military coup in early 2021, Chubb Life remains available to serve its customers in Myanmar.

Across the markets where it operates, Chubb Life added pandemic-related features to policies and rolled out new riders to address consumers' emerging concerns. In many countries, for example, coverage related to hospitalization and disability due specifically to COVID-19 was enhanced and various exclusions were waived.

While Chubb Life is focused on Asia, it has operations in other parts of the world. In 2020, Chubb Life completed the integration of the operations of Banchile Seguros de Vida (Banchile Life), a Santiago, Chile-based life insurance company with a long-standing insurance relationship with Banco de Chile, the largest bank based in Chile. Banchile Life offers a broad range of life, personal accident and supplemental health insurance products. Also in Latin America, Chubb and Nubank, the largest independent digital bank in Brazil, launched a fully digital life insurance offering in Brazil, Nubank Vida, giving Chubb access to the bank's 30 million customers.

"Life insurance is a long-term business, and we have been pursuing a consistent and deliberate strategy to build Chubb Life," said Mr. Bundschuh. "We met the challenges of 2020, and continued to make progress introducing and enhancing digitally enabled products, making it easier for agents and distribution partners to interact with us and serve customers. We are well positioned as we look to the future."

Combined Insurance

For much of Combined Insurance's 99-year history, the relationship between agent and insured was forged in living rooms and over kitchen tables. In recent years, Combined Insurance has made investments to diversify distribution of its personal accident, life and supplemental health insurance coverages, as well as the market segments it serves. It's been five years since the launch of Chubb Workplace Benefits, which serves large and middle-market companies by partnering with benefit brokers, agents and consultants to offer a line of supplemental insurance products, including accident, critical illness, hospital indemnity, life and disability income.

"In recent years we've focused on diversifying away from individual, face-to-face sales, growing commercial sales, and doing more digitally. When the pandemic arrived, we accelerated our plans to transform the company," said Joe Vasquez, Senior Vice President, Chubb Group, Global Accident & Health and President of Combined Insurance. "While COVID-19 significantly impacted both our traditional sales channel and Chubb Workplace Benefits, we managed expenses effectively, took actions to enhance the customer service experience, and made progress on our digital initiatives. Combined Insurance executed well in a challenging year."

With the lockdowns, Combined Insurance agents pivoted to telephone sales. The company supported agents through this transition with training and enhanced digital capabilities, including electronic signature capabilities. For its Chubb Workplace Benefits business, the company continues to make investments to enhance customer-facing and back-office systems.

Combined Insurance is also leveraging its product breadth and capabilities to serve Chubb commercial clients of all sizes – large, middle-market and small businesses. For example, the new Chubb WorkInsight℠ solution, which was introduced in early 2021 and integrates and streamlines absence management and workplace benefits for mid-size to large employers, is made available through Chubb Workplace Benefits. The February 2021 launch of BLINK℠ by Chubb®, a brand focused on delivering easy, effortless and affordable insurance products for digitally savvy consumers, is also creating opportunities for Combined Insurance to adapt its supplemental health products for a new digital distribution channel.

Combined Insurance was again named the nation's number one Military Friendly® Employer for 2021 by VIQTORY in the $1 billion to $5 billion revenue category. This is the company's 10th consecutive year on the top 10 employer list and seventh consecutive year in the top five.

Global Reinsurance

Key Financial Results

Dollars in millions

Global Reinsurance	
2020	
Gross premiums written	$832
Net premiums written	$731
Combined ratio	92.5%
Current accident year combined ratio excluding catastrophe losses	80.1%
Segment income	$357

"At Chubb, our capital can be put to work where we can get the best return – and that flexibility is a great strength of the organization."

– James Wixtead

Chubb's reinsurance business, which operates under the Chubb Tempest Re brand, offers a broad range of products to a diverse group of primary property and casualty insurers worldwide. Doing business globally with offices in Bermuda, Stamford, London, Montreal and Zurich, the business has deep underwriting, actuarial and claims expertise.

For reinsurers, 2020 was marked by the challenges of the pandemic and heightened catastrophe losses, as well as the pressures of operating in a low interest environment. Reinsurers, along with primary carriers, are benefiting from a firming market with improving rates and better terms and conditions on the primary business. More opportunities are developing where Chubb Tempest Re can allocate capacity at acceptable risk-adjusted returns. However, the reinsurance marketplace remains competitive with only marginal improvement in reinsurance terms.

"Capital is abundant, interest rates remain low and there is greater volatility experienced from both modeled and unmodeled catastrophe risks," said James Wixtead, Senior Vice President, Chubb Group and President, Chubb Tempest Re Group. "While there is improvement in underlying margins, there remains a competitive marketplace where reinsurance terms are relatively flat and, in some cases, improving for buyers."

Chubb Tempest Re's perspective of the market and risk appetite is defined by its status as a subsidiary of a leading global P&C insurer. The business can be patient and deploy capital only when there are opportunities to achieve rate adequacy. "Chubb has optionality of how and where to deploy capacity," said Mr. Wixtead. "Our targets for an acceptable combined ratio and return on equity are sometimes higher than other market participants for which reinsurance is their only business. At Chubb, our capital can be put to work where we can get the best return – and that flexibility is a great strength of the organization."

In 2020, Chubb's Global Reinsurance segment posted net premiums written of $731 million, up 12.6% from prior year. The combined ratio was 92.5%, and the current accident year combined ratio excluding catastrophe losses was 80.1% – underwriting results that outperformed the market. Segment income was $357 million.

Chubb Tempest Re offers global capabilities, security and financial stability. The team of managers and underwriters has been very consistent and stable over many years.

"People know who we are and what we are," said Mr. Wixtead. "When we can get a reasonable risk-adjusted rate for the risk we assume, we are in the market wholeheartedly. 2020 was a transitional year where market conditions continued to firm. While we applaud the current actions, there is still need for further margin enhancement. As opportunities continue to develop, we will be ready."

Chubb Corporate and Global Functional Leaders

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Joseph Wayland
Executive Vice President, Chubb Group;
General Counsel

Julie Dillman
Senior Vice President, Chubb Group;
Global Head of Operations

Philip Bancroft
Executive Vice President, Chubb Group;
Chief Financial Officer

Timothy Boroughs
Executive Vice President, Chubb Group;
Chief Investment Officer

Jo Ann Rabitz
Global Human Resources Officer,
Chubb Group

Citizenship at Chubb

Our Mission

Protecting the Present and Building a Better Future

Good corporate citizenship lies at our core – how we practice our craft of insurance, how we work together to serve our customers, how we treat each other, and how we work to help make a better world for our communities and our planet. Citizenship is about responsibility – and we express that responsibility in a way that reflects our core values and our mission to protect the present and build a better future.

We accomplish our mission by providing the security from risk that allows people and businesses to grow and prosper. Our mission is realized by sustaining a culture that values and rewards excellence, integrity, inclusion and opportunity; by working to protect our planet and assisting less fortunate individuals and communities in achieving and sustaining productive and healthy lives; and by promoting the rule of law.

From our roots in 18th century Philadelphia, we have built Chubb to be a dynamic, forward-looking global enterprise with a commitment to responsible citizenship. We act on this promise of responsibility through a wide range of activities that include our contributions of time and money.

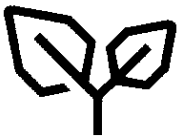
Philanthropy

The Chubb Charitable Foundation believes that meaningful contributions that support our communities globally provide lasting benefits to society, to Chubb and to Chubb employees. Through philanthropy, global partnerships and company-sponsored volunteer activities focused on giving the gift of time and donations, the foundation supports clearly defined projects that solve problems with measurable and sustainable outcomes, helping people in the countries where we live and work build productive and healthy lives.

Our philanthropy is funded principally through the Chubb Charitable Foundation and the Chubb Rule of Law Fund. Our commitment to assist those less fortunate and to be stewards of the planet is focused on the areas of education, poverty and health, and the environment. In the last decade, Chubb has contributed more than $100 million to the foundation.

For example, the Chubb Charitable Foundation has supported the International Rescue Committee. Through partnerships with The Nature Conservancy, Rainforest Trust and other conservation organizations, the foundation supports programs to save endangered wildlife, protect threatened lands and waters, and promote resiliency. Additionally, the foundation serves as a major partner for Teach for America and Teach for All programs in the U.S. and globally. In 2020, Chubb committed $10 million to pandemic relief efforts globally.

As part of our commitments to expand and enhance our broader diversity, equity and inclusion agenda, we are working through the Chubb Charitable Foundation and the Chubb Rule of Law Fund to support a range of programs to address inequality and promote social, economic and racial justice.



Environment

Chubb recognizes the reality of climate change and the substantial impact of human activity on our planet. We realize our commitment to be a steward of the earth in a number of ways: recognizing and responding to the reality of climate change across our businesses; managing environmental risk for our customers with innovative products and risk engineering solutions; supporting environmental resiliency projects throughout the world; protecting biodiversity and saving land through our philanthropy; and reducing the environmental footprint of our own operations.

Chubb develops insurance products and risk management services that facilitate market-based solutions to current and pending environmental and climate-related issues.

The Chubb Charitable Foundation and the company's employees support a range of environmental philanthropies, as well as volunteer activities in local communities around the world.

In 2019, Chubb adopted a new policy concerning coal-related underwriting and investment and established new science-based greenhouse gas (GHG) emissions reduction goals using 2016 as the baseline. By the end of 2019, the company achieved its first goal to reduce absolute GHG emissions by 20% and is committed to its long-term goal of reducing absolute GHG emissions 40% by 2035.

Diversity, Equity & Inclusion

Chubb operates within a dynamic and changing global environment where marketplaces and customers are culturally diverse and broad. Meeting diverse customer needs requires the best minds collaborating in a rewarding and supportive environment. We recognize our responsibility to ensure opportunity within our own organization by creating an atmosphere where all colleagues, regardless of who they are, feel comfortable bringing their best to the table. Our strategy for diversity, equity and inclusion (DE&I) is designed to support Chubb's ability to attract, develop and retain the best talent – regardless of background.

Chubb's culture holds true to the principles of accountability and ownership and requires collective and individual responsibility. Making and sustaining progress requires holding leadership accountable; developing and advancing diverse talent; increasing gender and multicultural leadership diversity; and deploying inclusive recruitment, development and promotional practices.

In 2020, Chubb committed to take specific actions related to racial equity in recruitment, career development and advancement opportunities; promoting a greater sense of belonging for Black colleagues; and increasing the knowledge and understanding of the Black employee experience through open two-way dialogue and education. These actions support our goal of becoming an anti-racist company.

Other DE&I initiatives include mentorships and affinity groups, such as Business Roundtables and Regional Inclusion Councils, which promote dynamic networking across the business and engage hundreds of employees in constructive dialogue.

Chubb Rule of Law Fund

As a corporate citizen, Chubb recognizes the rule of law as the foundation of a liberal world order that the company embraces as essential to the proper functioning of markets and the protection of personal freedoms. Through the Chubb Rule of Law Fund, a unique corporate initiative, we support projects around the world that promote the preservation and advancement of the rule of law.

Since it was founded in 2008, the fund has supported 62 projects in countries around the world focused on improving access to justice, strengthening courts, fighting corruption and creating the conditions of security and freedom in which our customers, employees and fellow citizens can thrive.

The events that unfolded across the U.S. in 2020 focused Chubb's attention on the persistent challenges arising from bigotry, racism and racial injustice in society, particularly for Black people. The fund has recently committed to supporting seven projects aimed at alleviating inequities in the administration of justice, including inequities arising from existing and historic racism. Among them are initiatives to improve trust and fairness in community policing, address racial disparities in the criminal justice system, build an international refugee legal regime for the 21st century and provide important training for judges in Guatemala to help promote greater independence and integrity in the judicial process.

The Chubb Rule of Law Fund is funded by the Chubb Charitable Foundation and contributions from 15 of Chubb's partner law firms.

Officers and Executives

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Chairman and Chief Executive Officer, Chubb Group

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Paul J. Krump**
Vice Chairman, Chubb Group;
Global Underwriting and Claims

Juan Luis Ortega**
Executive Vice President, Chubb Group;
President, Overseas General Insurance

Philip Bancroft*
Executive Vice President, Chubb Group;
Chief Financial Officer

Timothy Boroughs**
Executive Vice President, Chubb Group;
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General Counsel

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Senior Vice President, Chubb Group;
Chief Operating Officer, Chubb Life

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Senior Vice President, Chubb Group;
President, Chubb Life

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Senior Vice President, Chubb Group;
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Division President, North America Personal Risk Services

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Chief Actuary

Michael W. Smith
Senior Vice President, Chubb Group;
Global Claims Officer

Derek Talbott
Senior Vice President, Chubb Group;
Division President, North America Property

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Senior Vice President, Chubb Group;
Global Accident & Health;
President, Combined Insurance

James E. Wixtead
Senior Vice President, Chubb Group;
President, Chubb Tempest Re Group

*Chubb Limited Executive Management and Executive Officer for SEC reporting purposes
**Executive Officer for SEC reporting purposes

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Division President, North America Surety;
Chief Underwriting Officer, Global Surety

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Division President, Global Cyber Risk

Timothy O'Donnell
Vice President, Chubb Group;
Division President, Commercial Property and Casualty
Overseas General Insurance

Darryl Page
Vice President, Chubb Group;
Division President, Personal Insurance
Overseas General Insurance

Benjamin Rockwell
Vice President, Chubb Group;
Division President, North America Middle Market

Jeffrey Updyke
Vice President, Chubb Group;
Division President, North America Small Business

Other Executives

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Division President, Continental Europe, Middle East & North Africa

Samantha Froud
Chief Administration Officer, Bermuda Operations

Mark Hammond
Treasurer, Chubb Group

Jason Keen
Division President, Chubb Global Markets

Jeremiah Konz
Chief Reinsurance Officer, Chubb Group

Ivy Kusinga
Chief Culture Officer, Chubb Group

Eric Larson
Chief Compliance Officer, Chubb Group

David Lupica
Chief Operating & Distribution Management Officer
Westchester

Chris Martin
Division President, North America Accident and Health

Sara Mitchell
Division President, U.K. & Ireland and South Africa

Michael O'Donnell
Division President, Chubb Tempest Re USA

George Ohsiek
Chief Auditor, Chubb Group

Sam Peters
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Jo Ann Rabitz
Global Human Resources Officer, Chubb Group

Steve Roberts
Division President, Chubb Tempest Re International

Diego Sosa
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Overseas General Insurance

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Emeritus Professor of
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Retired Executive
Vice President and
Managing Director
Deutsche Bank

Michael P. Connors
Lead Director
Chubb Limited

Chairman and
Chief Executive Officer
Information Services
Group, Inc.

John A. Edwardson
Retired Chairman and
Chief Executive Officer
CDW Corporation

Robert J. Hugin
Former Chairman and
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Celgene Corporation

Robert W. Scully
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Bankers Trust Company

Theodore E. Shasta
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Non-GAAP Financial Measures

Non-GAAP Financial Measures
This document contains non-GAAP financial measures. The below non-GAAP financial measures, which may be defined differently by other companies, are important for an understanding of our overall results of operations and financial condition. However, these measures should not be viewed as a substitute for measures determined in accordance with generally accepted accounting principles (GAAP).

We provide certain financial measures on a constant-dollar basis (i.e., excluding the impact of foreign exchange). 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.

Core operating income, net of tax, excludes from net income the after-tax impact of adjusted net realized gains (losses), Chubb integration expenses, and the amortization of fair value adjustment of acquired invested assets and long-term debt related to The Chubb Corporation (Chubb Corp) acquisition. We believe this presentation enhances the understanding of our results of operations by highlighting the underlying profitability of our insurance business. We exclude adjusted net realized gains (losses) because the amount of these gains (losses) are heavily influenced by, and fluctuate in part according to the availability of market opportunities. Adjusted net realized gains (losses), net of tax, includes net realized gains (losses) and net realized gains (losses) recorded in other income (expense) related to unconsolidated subsidiaries, and excludes realized gains and losses on crop derivatives. We exclude the amortization of the fair value adjustments related to purchased invested assets and long-term debt and Chubb integration expenses due to the size and complexity of this acquisition. These integration expenses are distortive to our results and are not indicative of our underlying profitability. We believe that excluding these integration expenses facilitates the comparison of our financial results to our historical operating results. References to core operating income measures mean net of tax, whether or not noted.

The following table presents the reconciliation of Net income to Core operating income:

(in millions of U.S. dollars except share and per share data)	Full Year 2020	Full Year 2019
Net income, as reported	$3,533	$4,454
Amortization of fair value adjustment of acquired invested assets and long-term debt, pre-tax	(95)	(140)
Tax benefit on amortization adjustment	17	26
Chubb integration expenses, pre-tax	-	(23)
Tax benefit on Chubb integration expenses	-	4
Adjusted realized gains (losses), pre-tax:		
Adjusted realized gains (losses)[1]	(499)	(522)
Net realized gains (losses) related to unconsolidated entities[2]	821	483
Tax (expense) benefit on adjusted net realized gains (losses)	(24)	(15)
Core operating income	$3,313	$4,641
Denominator	453,441,512	458,914,663
Diluted earnings per share		
Net income	$7.79	$9.71
Amortization of fair value adjustment of acquired invested assets and long-term debt, net of tax	(0.17)	(0.25)
Chubb integration expenses, net of tax	-	(0.04)
Adjusted net realized gains (losses), net of tax	0.65	(0.11)
Core operating income	$7.31	$10.11
% Change from prior year	-27.7%	

[1] Excludes realized gains (losses) on crop derivatives of $1 million and $(8) million for 2020 and 2019, respectively.
[2] Realized gains (losses) on partially owned entities, which are investments where we hold more than an insignificant percentage of the investee's shares. The net income or loss is included in other income (expense).

Core operating return on equity (ROE) and **Core operating return on tangible equity (ROTE)** are annualized non-GAAP financial measures. The numerator includes core operating income, net of tax. The denominator includes the average shareholders' equity for the period adjusted to exclude unrealized gains (losses) on investments, net of tax. For the ROTE calculation, the denominator is also adjusted to exclude goodwill and other intangible assets, net of tax. These measures enhance the understanding of the return on shareholders' equity by highlighting the underlying profitability relative to shareholders' equity and tangible equity excluding the effect of unrealized gains and losses on our investments.

(in millions of U.S. dollars except ratios)	Full Year 2020	Full Year 2019
Net income	$3,533	$4,454
Core operating income	$3,313	$4,641
Equity – beginning of period as reported [1]	$55,259	$50,300
Less: unrealized gains (losses) on investments, net of deferred tax	2,543	(545)
Equity – beginning of period, as adjusted	$52,716	$50,845
Less: goodwill and other intangible assets, net of tax	$20,012	$20,054
Equity – beginning of period, as adjusted, excluding goodwill and other intangible assets	$32,704	$30,791
Equity – end of period, as reported	$59,441	$55,331
Less: unrealized gains (losses) on investments, net of deferred tax	4,673	2,543
Equity – end of period, as adjusted	$54,768	$52,788
Less: goodwill and other intangible assets, net of tax	$19,916	$20,012
Equity – end of period, as adjusted, excluding goodwill and other intangible assets	$34,852	$32,776
Weighted average equity, as reported	$57,350	$52,816
Weighted average equity, as adjusted	$53,742	$51,817
Weighted average equity, as adjusted, excluding goodwill and other intangible assets	$33,778	$31,784
ROE	6.2%	8.4%
Core operating ROE	6.2%	9.0%
Core operating ROTE	9.8%	14.6%

[1] January 1, 2020 included a $72 million after-tax reduction to beginning equity principally related to the adoption of the current expected credit loss accounting guidance.

Combined ratio measures the underwriting profitability of our property & casualty business. **P&C combined ratio** and **CAY P&C combined ratio excluding Catastrophe losses (CATs)** are non-GAAP financial measures. Refer to the Non-GAAP Reconciliation section in the 2020 Form 10-K, on pages 63-66 for the definition of these non-GAAP financial measures and reconciliation to the Combined ratio.

CAY P&C combined ratio with expected level of CATs is a non-GAAP financial measure which excludes CATs above or below managements' view of expected CATs for that period. For this purpose, the normalized level of CATs, or **expected level of CATs**, is not intended to represent a probability weighted expectation for the company but rather to represent management's view of what might be more typical for a given period based on various factors, including historical experience, seasonal patterns, and consideration of both modeled CATs (e.g., windstorm and earthquake) as well as non-modeled CATs (e.g., wildfires, floods and freeze).

	Full Year 2020	Full Year 2019
Combined ratio	96.1%	90.6%
Add: impact of gains and losses on crop derivatives	0.0%	0.0%
P&C combined ratio	96.1%	90.6%
Less: Catastrophe losses	10.6%	4.1%
Less: Prior period development	-1.2%	-2.7%
CAY P&C combined ratio excluding CATs	86.7%	89.2%
Add: Expected level of CATs	3.6%	3.4%
CAY P&C combined ratio with expected level of CATs	90.3%	92.6%

The following table presents the reconciliation of Catastrophe losses, pre-tax, to Natural catastrophe losses above expected level, pre-tax:

(in millions of U.S. dollars)	Full Year 2020
COVID-19 catastrophe losses	$1,396
Natural catastrophe losses	1,742
Other catastrophe losses	145
Catastrophe losses, pre-tax	$3,283
Natural catastrophe losses	$1,742
Less: Expected level of Catastrophe losses	1,094
Natural catastrophe losses above expected level, pre-tax	$648

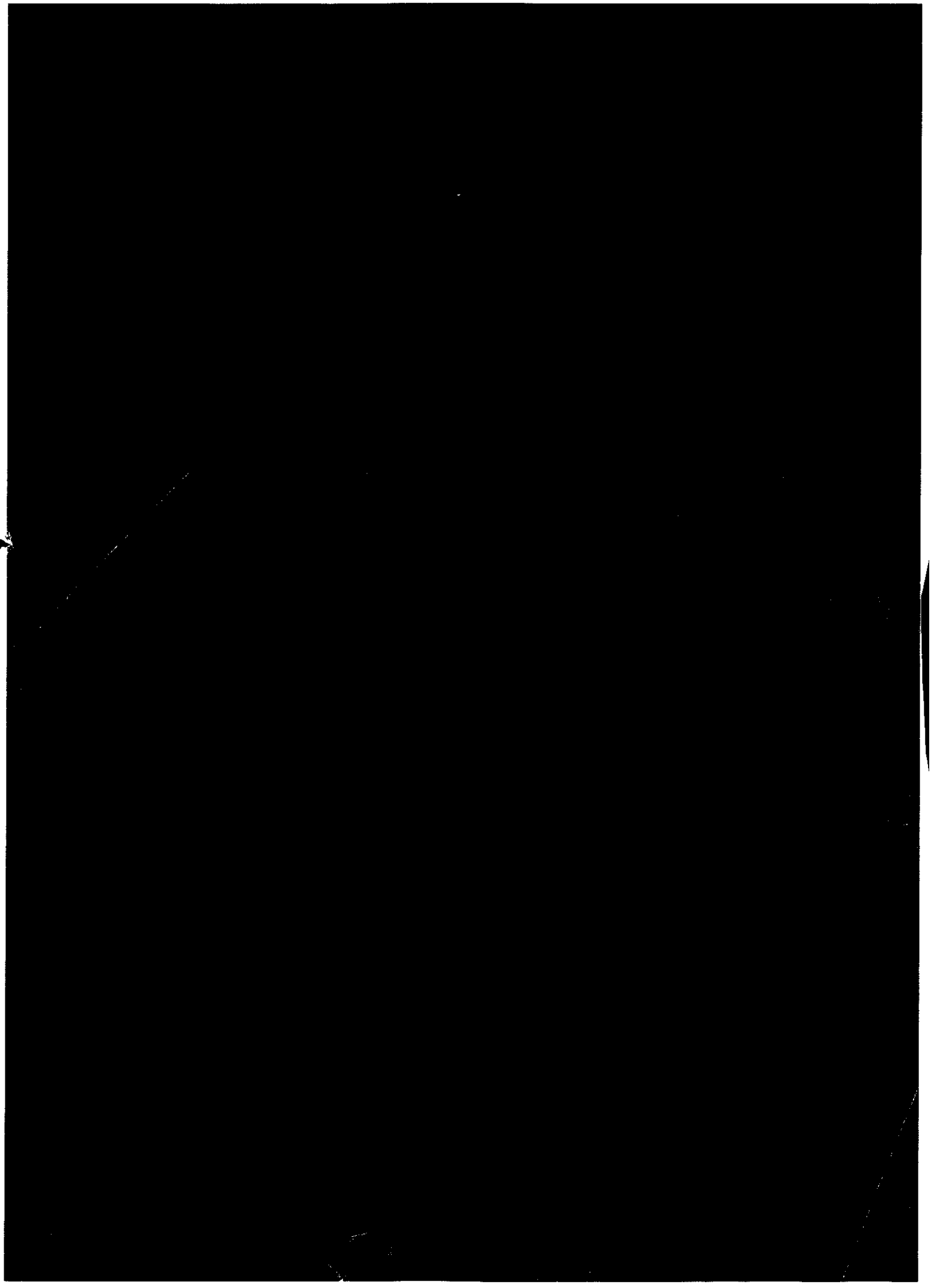
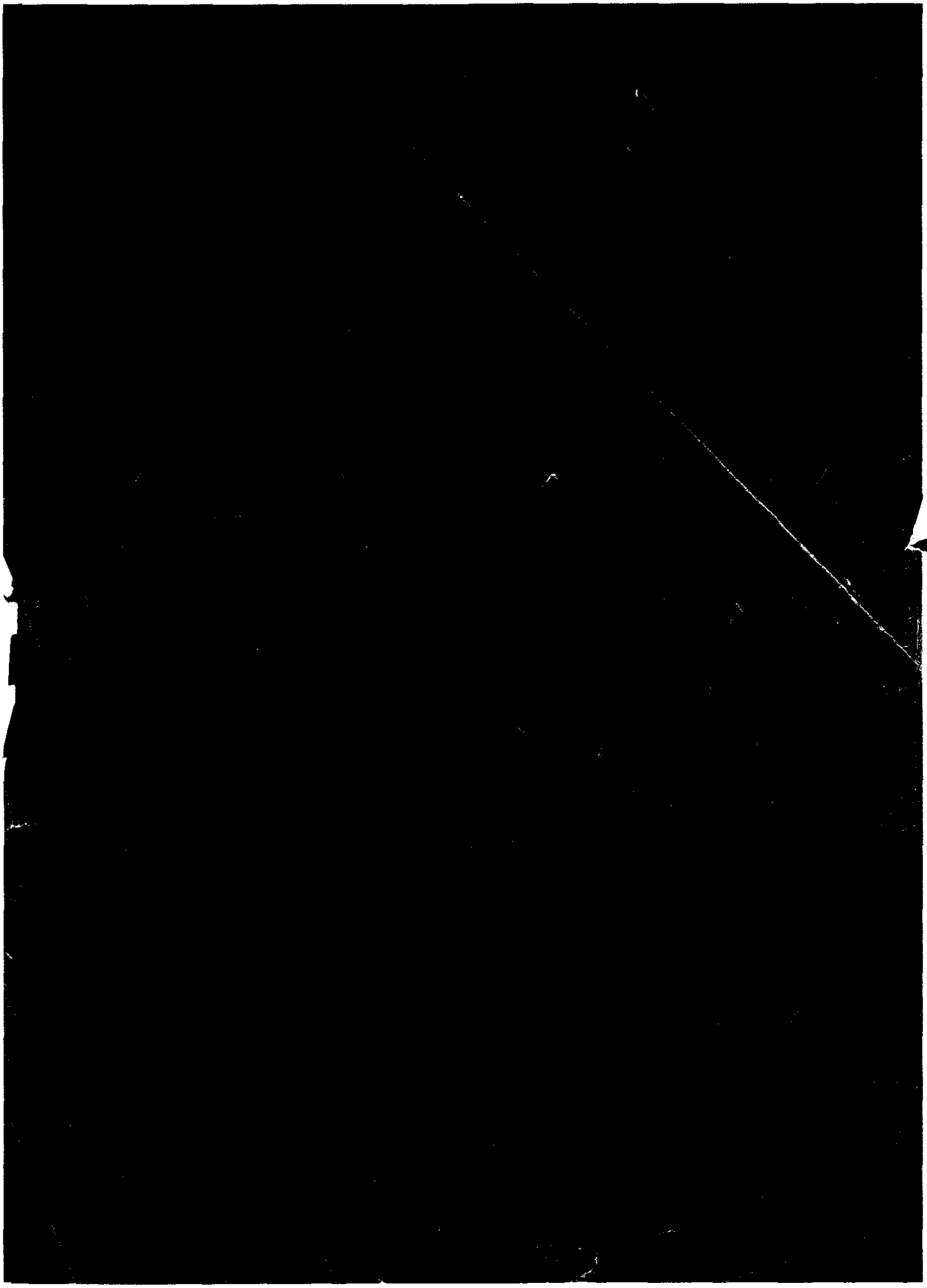
Tangible book value per common share is shareholders' equity less goodwill and other intangible assets, net of tax, divided by the shares outstanding. We believe that goodwill and other intangible assets are not indicative of our underlying insurance results or trends and make book value comparisons to less acquisitive peer companies less meaningful. **Tangible book value excluding unrealized appreciation on investments** is adjusted to exclude unrealized gains (losses) on investments, net of tax. We exclude unrealized investment gains (losses) because the amount of these gains (losses) is heavily influenced by changes in market conditions, including interest rate changes.

(in millions of U.S. dollars, except share and per share data)	December 31 2020	December 31 2019	% Change
Shareholders' equity	$59,441	$55,331	7.4%
Less: goodwill and other intangible assets, net of tax	19,916	20,012	
Numerator for tangible book value per share	$39,525	$35,319	11.9%
Less: unrealized appreciation on investments, net of tax	4,673	2,543	
Tangible book value excluding unrealized appreciation on investments	$34,852	$32,776	6.3%
Shares outstanding	450,732,625	451,971,567	
Book value per common share	$131.88	$122.42	7.7%
Tangible book value per common share	$87.69	$78.14	12.2%
Tangible book value ex unrealized appreciation on investments per share	$77.32	$72.52	6.6%

International life insurance net premiums written and deposits is a non-GAAP financial measure which includes International life insurance net premiums written and deposits collected on universal life and investment contracts. 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. However, new life deposits are an important component of production and key to our efforts to grow our business.

(in millions of U.S. dollars)	Full Year 2020	Full Year 2019
International life insurance net premiums written	$1,198	$981
International life insurance deposits	1,559	1,463
Total international life insurance net premiums written and deposits [1]	$2,757	$2,444

[1] Excludes Combined North America and Life reinsurance businesses.

Adjusted net investment income is net investment income excluding the amortization of the fair value adjustment on acquired invested assets from the acquisition of Chubb Corp and including investment income from partially owned investment companies (private equity partnerships) where our ownership interest is in excess of three percent that are accounted for under the equity method. The mark-to-market movement on these private equity partnerships are included in adjusted net realized gains (losses). We believe this measure is meaningful as it highlights the underlying performance of our invested assets and portfolio management in support of our lines of business.

(in millions of U.S. dollars)	Full Year 2020	Full Year 2019
Net investment income	$3,375	$3,426
Less: Amortization expense of fair value adjustment on acquired invested assets	(116)	(161)
Add: Other income from private equity partnerships	115	86
Adjusted net investment income	$3,606	$3,673
% Change from prior year	-1.8%