

**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 number 1-9371

ALLEGHANY CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

1411 Broadway, 34th Floor

New York, New York

(Address of principal executive offices)

51-0283071

(I.R.S. Employer
Identification Number)

10018

(Zip Code)

Registrant's telephone number, including area code:

212-752-1356

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

Title of each class Common Stock, \$1.00 par value	Trading Symbol(s) Y	Name of each exchange on which registered New York Stock Exchange
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Securities registered pursuant to Section 12(g) of the Act:

Not applicable

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. (Check one):

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 and non-voting common shares held by non-affiliates of the registrant as of June 30, 2020 (the last business day of the registrant's most recently completed second fiscal quarter) was approximately \$6,775,179,881 based on the closing sale price of the registrant's common shares on the New York Stock Exchange on that date.

As of February 8, 2021, 13,992,658 shares of the registrant's common stock, par value \$1.00 per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement relating to the Annual Meeting of Stockholders of Alleghany Corporation to be held on April 30, 2021 to be filed with the Securities and Exchange Commission pursuant to Regulation 14A are incorporated by reference into Part III of this Annual Report on Form 10-K.

ALLEGHANY CORPORATION

Table of Contents

	<u>Page</u>
<u>PART I</u>	
Item 1. Business	41
Item 1A. Risk Factors	61
Item 1B. Unresolved Staff Comments	74
Item 2. Properties	74
Item 3. Legal Proceedings	74
Item 4. Mine Safety Disclosures	74
<u>PART II</u>	
Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	75
Item 6. Selected Financial Data	77
Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations	78
Item 7A. Quantitative and Qualitative Disclosures about Market Risk	125
Item 8. Financial Statements and Supplementary Data	127
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	184
Item 9A. Controls and Procedures	184
Item 9B. Other Information	184
<u>PART III</u>	
Item 10. Directors, Executive Officers and Corporate Governance	185
Item 11. Executive Compensation	185
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	185
Item 13. Certain Relationships and Related Transactions, and Director Independence	186
Item 14. Principal Accountant Fees and Services	186
<u>PART IV</u>	
Item 15. Exhibits and Financial Statement Schedules	187
Item 16. Form 10-K Summary	189

ALLEGHANY CORPORATION

References in this Annual Report on Form 10-K for the year ended December 31, 2020, or this “Form 10-K,” to the “Company,” “Alleghany,” “we,” “us,” and “our” refer to Alleghany Corporation and its consolidated subsidiaries unless the context otherwise requires. In addition, unless the context otherwise requires, references to

- “TransRe” are to our wholly-owned reinsurance holding company subsidiary Transatlantic Holdings, Inc. and its subsidiaries;
- “AIHL” are to our wholly-owned insurance holding company subsidiary Alleghany Insurance Holdings LLC;
- “RSUI” are to our wholly-owned subsidiary RSUI Group, Inc. and its subsidiaries;
- “CapSpecialty” are to our wholly-owned subsidiary CapSpecialty, Inc. and its subsidiaries;
- “AIHL Re” are to our wholly-owned subsidiary AIHL Re LLC;
- “Roundwood” are to our wholly-owned subsidiary Roundwood Asset Management LLC;
- “SORC” are to our former wholly-owned subsidiary Stranded Oil Resources Corporation and its subsidiaries, which was sold on December 31, 2020;
- “Alleghany Capital” are to our wholly-owned subsidiary Alleghany Capital Corporation and its subsidiaries;
- “PCT” are to our wholly-owned subsidiary Precision Cutting Technologies, Inc. and its subsidiaries;
- “Kentucky Trailer” are to our majority-owned subsidiary R.C. Tway Company, LLC and its subsidiaries;
- “IPS” are to our majority-owned subsidiary IPS-Integrated Project Services, LLC and its subsidiaries;
- “Jazwares” are to our majority-owned subsidiary Jazwares, LLC and its subsidiaries and affiliates;
- “W&W|AFCO Steel” are to our majority-owned subsidiary WWSC Holdings, LLC and its subsidiaries;
- “Concord” are to our majority-owned subsidiary CHECO Holdings, LLC and its subsidiaries;
- “Wilbert” are to our majority-owned subsidiary Wilbert Funeral Services, Inc. and its subsidiaries; and
- “Alleghany Properties” are to our wholly-owned subsidiary Alleghany Properties Holdings LLC and its subsidiaries.

NOTE ON FORWARD-LOOKING STATEMENTS

Certain statements contained in this Form 10-K may be deemed to be “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of words such as “may,” “will,” “expect,” “project,” “estimate,” “anticipate,” “plan,” “believe,” “potential,” “should” or the negative versions of those words or other comparable words. Forward-looking statements do not relate solely to historical or current facts, rather they are based on management’s expectations as well as certain assumptions and estimates made by, and information available to, management at the time. These statements are not guarantees of future performance. These forward-looking statements are based upon Alleghany’s current expectations and are subject to a number of uncertainties and risks that could significantly affect current plans, anticipated actions and Alleghany’s future financial condition and results. Factors that could cause these forward-looking statements to differ, possibly materially, from that currently contemplated include:

- significant weather-related or other natural or man-made catastrophes and disasters;
- the effects of outbreaks of pandemics or contagious diseases, including the length and severity of the current worldwide coronavirus pandemic, known as COVID-19, including its impact on our business;
- the cyclical nature of the property and casualty reinsurance and insurance industries;
- changes in market prices of our significant equity investments and changes in value of our debt securities portfolio;
- adverse loss development for events insured by our reinsurance and insurance subsidiaries in either the current year or prior years;
- the long-tail and potentially volatile nature of certain casualty lines of business written by our reinsurance and insurance subsidiaries;
- the cost and availability of reinsurance;
- the reliance by our reinsurance and insurance operating subsidiaries on a limited number of brokers;
- legal, political, judicial and regulatory changes;
- increases in the levels of risk retention by our reinsurance and insurance subsidiaries;
- changes in the ratings assigned to our reinsurance and insurance subsidiaries;
- claims development and the process of estimating reserves;
- exposure to terrorist acts and acts of war;
- the willingness and ability of our reinsurance and insurance subsidiaries’ reinsurers to pay reinsurance recoverables owed to our reinsurance and insurance subsidiaries;
- the uncertain nature of damage theories and loss amounts;
- the loss of key personnel of our reinsurance or insurance operating subsidiaries;
- fluctuation in foreign currency exchange rates;
- the failure to comply with the restrictive covenants contained in the agreements governing our indebtedness;
- the ability to make payments on, or repay or refinance, our debt;
- risks inherent in international operations; and
- difficult and volatile conditions in the global market.

Additional risks and uncertainties include general economic and political conditions, including the effects of a prolonged U.S. or global economic downturn or recession; changes in costs; variations in political, economic or other factors; risks relating to conducting operations in a competitive environment; effects of acquisition and disposition activities, inflation rates, or recessionary or expansive trends; changes in interest rates; extended labor disruptions, civil unrest, or other external factors over which we have no control; changes in our plans, strategies, objectives, expectations, or intentions, which may happen at any time at our discretion; and other factors discussed in this Form 10-K and subsequent filings with the Securities and Exchange Commission, or the “SEC.” All forward-looking statements speak only as of the date they are made and are based on information available at that time. Alleghany does not undertake any obligation to update or revise any forward-looking statements to reflect subsequent circumstances or events. See Part I, Item 1A, “Risk Factors” of this Form 10-K for additional information.

PART I

Item 1. Business.

Overview

Alleghany Corporation owns and supports certain operating subsidiaries and manages investments, anchored by a core position in property and casualty reinsurance and insurance. Alleghany Corporation, incorporated in Delaware in 1984, is the successor company to Alleghany Corporation, a Maryland corporation, which was founded in 1929. Through TransRe, a wholly-owned Alleghany subsidiary since March 2012, we are engaged in the property and casualty reinsurance business. Through AIHL, a wholly-owned intermediate holding company, we are engaged in the property and casualty insurance business. AIHL's principal insurance company subsidiaries are RSUI and CapSpecialty. RSUI and CapSpecialty have been subsidiaries of AIHL since July 2003 and January 2002, respectively. AIHL Re, a Vermont captive reinsurance company which provides reinsurance to Alleghany's current and former insurance operating subsidiaries and affiliates, has been a wholly-owned subsidiary of Alleghany since its formation in May 2006.

Although our primary sources of revenues and earnings are our reinsurance and insurance operations and investments, we also generate revenues and earnings from a diverse portfolio of non-financial businesses that are owned and managed through our wholly-owned subsidiary Alleghany Capital. Alleghany Capital's businesses include: PCT; Kentucky Trailer; IPS; Jazwares; W&W/AFCO Steel; Concord; and Wilbert.

In addition, we own certain other holding company investments. Our wholly-owned subsidiary Alleghany Properties owns and manages certain properties in the Sacramento, California region. Our public equity investments are managed primarily through our wholly-owned subsidiary Roundwood. Prior to its December 31, 2020 sale, SORC was our wholly-owned subsidiary. Headquartered in Golden, Colorado, SORC is an exploration and production company focused on enhanced oil recovery.

As of December 31, 2020, we had total assets of \$28.9 billion and total stockholders' equity attributable to Alleghany stockholders of \$8.8 billion.

Our principal executive offices are located in leased office space at 1411 Broadway, 34th Floor, New York, New York, 10018. Our telephone number is (212) 752-1356. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the "Exchange Act," are available, free of charge, on our website at www.alleghany.com, as soon as reasonably practicable after we electronically file this material with, or furnish it to, the SEC. Reports and other information we file with the SEC may also be viewed at the SEC's website at www.sec.gov. Our Financial Personnel Code of Ethics, Employee Code of Business Conduct and Ethics, Director Code of Business Conduct and Ethics, Code of Business Conduct and Ethics for our Business Partners, Corporate Governance Guidelines and the charters for our Audit, Compensation and Environmental, Social and Governance Committees are also available on our website. In addition, interested parties may obtain, free of charge, copies of any of the above reports or documents upon request to the Secretary of Alleghany.

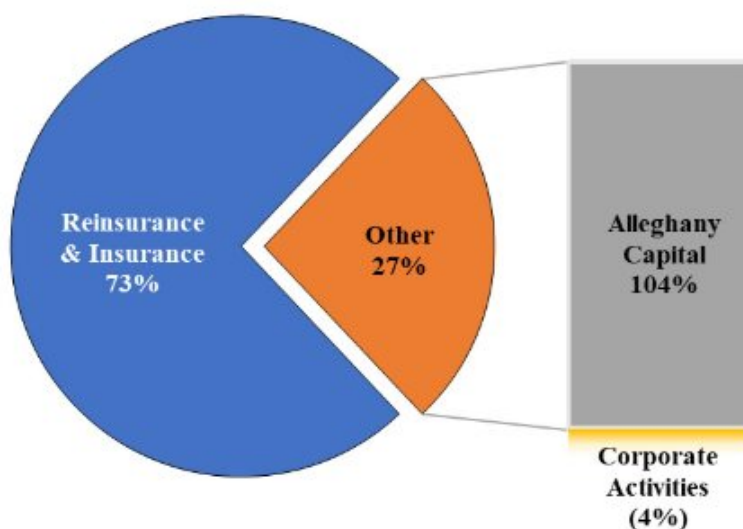
Segment Information

Our segments are reported in a manner consistent with the way management evaluates the businesses. As such, we classify our businesses into three reportable segments – reinsurance, insurance and Alleghany Capital. Reinsurance and insurance underwriting activities are evaluated separately from investment and other activities.

Corporate activities are not classified as a segment. The primary components of corporate activities are Alleghany Properties, activities at the Alleghany parent company and, prior to its December 31, 2020 sale, SORC.

In 2020, our reinsurance and insurance segments constituted the majority of our total consolidated revenues, as follows:

2020 Revenues



See below and Note 13 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for an analysis of our underwriting results by segment and other activities, and Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Consolidated Results of Operations.”

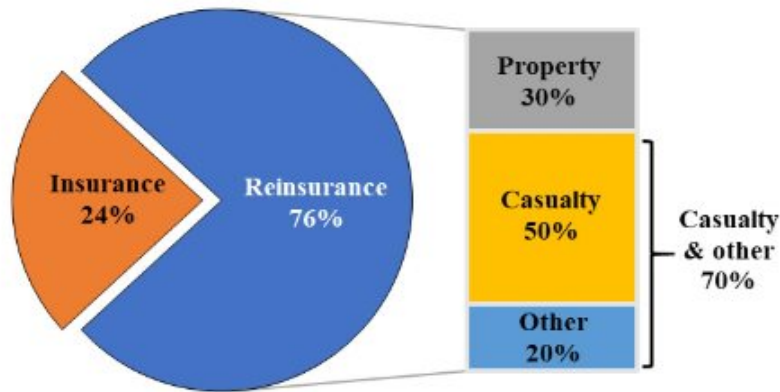
Reinsurance Segment

General. The reinsurance segment consists of property and casualty reinsurance operations conducted by TransRe’s reinsurance operating subsidiaries. TransRe’s operating subsidiaries also write a modest amount of property and casualty insurance business, which is included in the reinsurance segment.

TransRe, through its principal, wholly-owned subsidiaries Transatlantic Reinsurance Company, or “TRC,” TransRe London Ltd., or “TRL,” and TransRe Europe S.A., or “TRESA,” provides property and casualty reinsurance to insurance and other reinsurance companies. These products are distributed both through brokers and on a direct basis in the domestic and foreign markets. Domestically, TransRe is headquartered in New York, New York and has seven other office locations in the U.S. TransRe also has operations worldwide, including: Africa, Australia, Bermuda, Canada, Asia (where it has five locations), South America (where it has two locations), the U.K. and Europe (where it has four locations). TRC is licensed, accredited or otherwise approved as a reinsurer in all 50 states and the District of Columbia in the U.S. and in Puerto Rico and Guam. TRC is also licensed in Bermuda, Canada, Japan, the U.K., Mexico, several countries in South and Central America and the Caribbean, the Hong Kong Special Administrative Region of the People’s Republic of China, Australia and Singapore. In addition, TRL is licensed as a reinsurer in the U.K. and India and TRESA is licensed as a reinsurer in Luxembourg and Dubai.

The reinsurance segment constitutes the majority of our consolidated net premiums written and is reported through two major product lines, “property” and “casualty & other.”

2020 Net Premiums Written



- *Property.* TransRe's principal lines of business within property include: fire; allied lines; auto physical damage; and homeowners multiple peril (which include property catastrophe risks).
- *Casualty & other.* TransRe's principal lines of business within casualty include: directors' and officers' liability; errors and omissions liability; general liability; auto liability; and medical malpractice. TransRe's principal lines of business within other include: ocean marine and aviation; accident & health; mortgage reinsurance; surety; and credit.

Reinsurance contracts are generally classified as treaty or facultative contracts. TransRe provides property and casualty reinsurance on both a treaty and facultative basis. Treaty reinsurance is a contractual arrangement that provides for the automatic reinsuring of all or a portion of a specified class of risk underwritten by the ceding company. Facultative reinsurance is the reinsurance of individual risks. Rather than agreeing to reinsure all or a portion of a class of risk, the reinsurer separately rates and underwrites each risk. Facultative reinsurance is normally purchased for risks not covered by treaty reinsurance or for individual risks covered by reinsurance treaties that are in need of capacity beyond that provided by such treaties.

A ceding company's reinsurance program may involve pro rata and excess-of-loss reinsurance on both a treaty and facultative basis. TransRe provides pro rata and excess-of-loss reinsurance for most major lines of business. Under pro rata reinsurance (also referred to as proportional or quota share reinsurance), the ceding company and the reinsurer share the premiums as well as the losses and expenses in an agreed proportion, and such proportional sharing of losses may be subject to a predetermined limit. As pro rata business is a proportional sharing of premiums and losses between the ceding company and the reinsurer, generally the underwriting results of such business more closely reflect the underwriting results of the business ceded than do the results of excess-of-loss business. In pro rata reinsurance, the reinsurer generally pays the ceding company a ceding commission, which is generally based on the ceding company's cost of obtaining the business being reinsured, such as brokers' and agents' commissions, local taxes and administrative expenses. Under excess-of-loss reinsurance (also referred to as non-proportional reinsurance), the reinsurer indemnifies the ceding company for all or a portion of the losses in excess of a predetermined amount, usually up to a predetermined limit. Premiums paid by the ceding company to the reinsurer for excess-of-loss coverage are generally not proportional to the premiums that the ceding company receives because the reinsurer does not assume a proportionate risk. Often there is no ceding commission on excess-of-loss reinsurance and therefore the pricing mechanism used by reinsurers in those instances is a rate applicable to premiums of the individual policy or policies subject to the reinsurance agreement. Both pro rata and excess-of-loss reinsurance may provide for aggregate limits of indemnification.

In July 2016, TransRe entered into a five-year agreement with General Reinsurance Corporation, a wholly-owned subsidiary of Berkshire Hathaway Inc., for TransRe to act as exclusive underwriting manager on behalf of General Reinsurance Corporation for U.S. and Canadian property and casualty treaty reinsurance business produced by brokers and intermediaries. Fees earned under this agreement are included in noninsurance revenue in the consolidated statements of earnings and comprehensive income.

As of December 31, 2020, the statutory surplus of TRC was \$4.8 billion, as determined in accordance with statutory accounting principles, or "SAP," and the consolidated equity of TransRe was \$5.4 billion, as determined in accordance with accounting principles generally accepted in the U.S., or "GAAP."

Distribution. TransRe provides property and casualty reinsurance through brokers as well as directly to insurance and reinsurance companies in domestic and foreign markets. In 2020, approximately 82 percent of TransRe's gross premiums written were written through brokers with the balance written directly with ceding company clients. In the reinsurance brokerage industry, brokers are engaged by the ceding companies to place reinsurance on their behalf. In 2020, companies controlled by Aon plc, Marsh & McLennan Companies, Inc. and TigerRisk Partners, LLC were TransRe's largest brokerage sources of business, accounting for approximately 27 percent, 19 percent and 14 percent, respectively, of gross premiums written. The reinsurance brokerage industry is dominated by certain of these brokers. Due to the substantial percentages of premiums written through these brokers, the loss of business from any one of them could have a material adverse effect on TransRe's business.

Underwriting. TransRe's underwriting process emphasizes a team approach among TransRe's underwriters, actuaries, claims staff and senior management, as appropriate. Treaties are reviewed for compliance with TransRe's underwriting guidelines and objectives, and most treaties are evaluated in part based upon actuarial analyses conducted by TransRe. TransRe's actuaries are independent from the underwriting department and are responsible for providing underwriters objective account analyses utilizing available industry and account-specific data along with industry and proprietary actuarial models. TransRe's actuarial models used in such analyses are tailored in each case to the exposures and experience underlying the specific treaty and the loss experience for the risks covered. Property catastrophe-exposed treaties are generally evaluated using industry standard models, as well as proprietary TransRe models. These models are used as a guide for risk assessment and portfolio optimization and are continually updated. TransRe also frequently conducts underwriting and claims audits at the offices of a ceding company before and after entering into major treaties. This is because reinsurers, including TransRe, do not separately evaluate each of the individual risks assumed under such treaties and, consequently, are largely dependent on the original underwriting decisions made by the ceding company. Such dependence subjects TransRe, and reinsurers in general, to the possibility that the ceding companies have not adequately evaluated and priced the risks to be reinsured and, therefore, that the premiums ceded may not adequately compensate TransRe for the risk assumed.

TransRe often seeks to lead treaty placements. The lead reinsurer on a treaty generally accepts one of the largest percentage shares of the treaty and therefore has significant influence in negotiating price, terms and conditions. TransRe may decline any treaty business offered to it based upon its assessment of all relevant factors. Such factors include type and level of risk assumed; actuarial and underwriting judgment with respect to rate adequacy; various treaty terms; prior and anticipated loss experience (including exposure to natural and man-made catastrophes) on the treaty; prior business experience with the ceding company; overall financial position; operating results; ratings from credit rating agencies of the ceding company; and social, legal, regulatory, environmental and general economic conditions affecting the risks assumed or the ceding company.

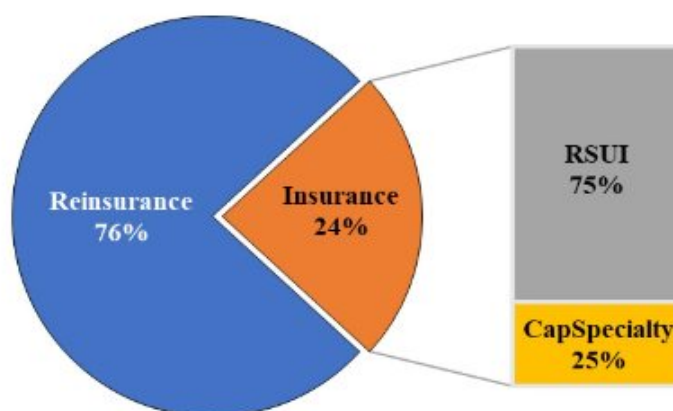
Ratings. TRC, TRL and TRESA are rated A+ by Standard & Poor's Ratings Services, or "S&P," and A+ (Superior) by A.M. Best Company, Inc., or "A.M. Best," and TRC is rated A1 by Moody's Investors Service Inc., or "Moody's." Additional information regarding ratings and the risks related to ratings from ratings agencies can be found on page 66 of this Form 10-K.

Insurance Segment

The insurance segment consists of property and casualty insurance operations conducted in the U.S. by AIHL through RSUI, headquartered in Atlanta, Georgia, and CapSpecialty, headquartered in Middleton, Wisconsin. AIHL Re, our Vermont-domiciled captive reinsurance company, provides reinsurance to our current and former insurance operating subsidiaries and affiliates. Unless we state otherwise, references to AIHL include the operations of RSUI, CapSpecialty and AIHL Re.

The insurance segment constitutes a smaller portion of our consolidated net premiums written and is reported through our RSUI and CapSpecialty subsidiaries.

2020 Net Premiums Written



RSUI

General. RSUI conducts its insurance operations through its wholly-owned insurance company subsidiaries RSUI Indemnity Company, or “RIC,” Landmark American Insurance Company, or “Landmark,” and Covington Specialty Insurance Company, or “Covington.” RSUI’s operating subsidiaries write specialty insurance coverages in the property, umbrella/excess liability, general liability, directors’ and officers’ liability and professional liability lines of business. RSUI’s operating subsidiaries also write a modest amount of reinsurance business on an assumed basis, which is included in the insurance segment.

The market for specialty insurance coverages differs significantly from the market for standard insurance coverages. The specialty market provides coverage for hard-to-place risks that generally do not fit the underwriting criteria of the standard market, which provides coverage for largely uniform and relatively predictable exposures and is highly regulated with respect to rates and forms.

RSUI’s operating subsidiaries write specialty business on both an admitted and non-admitted basis. Admitted insurers are authorized to market, sell and service insurance policies in the states where they are licensed. Admitted insurers are generally required to obtain regulatory approval of their policy forms and premium rates. Non-admitted insurance markets have developed to provide insurance that is otherwise unavailable from a state’s admitted insurance markets. Non-admitted insurance is procured by either state-licensed surplus lines brokers who place risks with insurers not licensed in that state or by insureds’ direct procurement from non-admitted insurers. Non-admitted insurance is subject to considerably less regulation with respect to premium rates and forms. RSUI writes admitted specialty business primarily through RIC, a New Hampshire-domiciled insurer, licensed in all 50 states and the District of Columbia. Specialty business written by RIC is subject to state policy form and premium rate regulations. Most of the risks in the admitted specialty market are unique and hard-to-place in the standard market. However, rather than looking to the non-admitted market, certain policyholders procure such specialty coverage from an admitted insurance company based on regulatory and/or marketing concerns. As an admitted carrier, RIC is subject to more state regulation than a non-admitted carrier, particularly with regard to rate and form filing requirements, restrictions on the ability to exit lines of business, premium tax payments and membership in various state associations, such as state guaranty funds and assigned risk plans.

RSUI writes business on a surplus lines eligible, non-admitted basis primarily through Landmark, a New Hampshire-domiciled insurer. As a surplus lines eligible, non-admitted insurance company, Landmark is not subject to state policy form and premium rate regulations and thus has more flexibility in setting rates and coverages for specialized or hard-to-place risks. This typically results in policies with higher premiums and more restrictive coverage provisions than coverages written by a standard insurance company. As of December 31, 2020, Landmark was approved to write business on a non-admitted basis in all 50 states and the District of Columbia.

Covington, a New Hampshire-domiciled insurer, was formed in September 2007 to, among other things, issue surplus lines policies written by RSUI. Through RSUI’s binding authority department, Covington writes small, specialized coverages pursuant to underwriting authority arrangements with managing general agents.

Pursuant to quota share arrangements, in place since 2009, Landmark and Covington cede 90 percent of all their respective premiums and losses, gross of third-party reinsurance, to RIC.

As of December 31, 2020, the statutory surplus of RIC was approximately \$1.7 billion, the statutory surplus of Landmark was approximately \$155 million, the statutory surplus of Covington was approximately \$49 million, each as determined in accordance with SAP, and the consolidated equity of RSUI was \$1.8 billion, as determined in accordance with GAAP.

Distribution. As of December 31, 2020, RSUI conducted its insurance business through approximately 100 independent wholesale insurance brokers located throughout the U.S. and 22 managing general agents. RSUI's wholesale brokers are appointed based on management's appraisal of expertise, premium production potential, loss history with other insurance companies that they represent and the size and experience of the agency. A wholesale broker's operations are appointed to distribute RSUI's products on a location by location basis. Producer agreements which stipulate premium collection, payment terms and commission arrangements are in place with each wholesale broker. No wholesale broker holds underwriting, claims or reinsurance authority for RSUI. RSUI's top five producing wholesale brokers accounted for approximately 82 percent of gross premiums written by RSUI in 2020. RSUI's top two producing wholesale brokers, Ryan Specialty Group and CRC Insurance Services, Inc., accounted for, in the aggregate, approximately 48 percent of RSUI's gross premiums written in 2020. RSUI has entered into underwriting authority arrangements with 22 managing general agents for small, specialized coverages.

Underwriting. RSUI's underwriting philosophy is based on handling only product lines in which its underwriters have underwriting expertise. RSUI generally focuses on higher severity, lower frequency specialty risks that can be effectively "desk underwritten" without the need for inspection or engineering reviews. RSUI tracks underwriting results for each of its underwriters and believes that the underwriting systems and applications it has in place facilitate efficient underwriting and high productivity levels. Underwriting authority is delegated on a "top-down" basis ultimately to individual underwriters based on experience and expertise. This authority is in writing and addresses maximum limits, excluded classes and coverages and premium size referral. Referral to a product line manager is required for risks exceeding an underwriter's authority.

Ratings. RIC, Landmark and Covington are each rated A+ (Superior) by A.M. Best and all three companies are rated "A+" by S&P. RIC and Landmark are rated A2 by Moody's.

CapSpecialty

General. CapSpecialty, primarily through its wholly-owned subsidiaries Capitol Indemnity Corporation, or "CIC," Capitol Specialty Insurance Corporation, or "CSIC," and Platte River Insurance Company, or "Platte River," operates in the 50 states and the District of Columbia. Through October 1, 2019, CapSpecialty also included the operations and results of Professional Risk Management Services, Inc., which was acquired from TransRe in 2014 and resold to TransRe effective October 1, 2019.

CIC conducts its property and casualty insurance business on an admitted basis throughout the U.S. CIC also writes surety products such as commercial surety bonds and contract surety bonds on a national basis. Commercial surety bonds include all surety bonds other than contract surety bonds and cover obligations typically required by law or regulation, such as licenses and permits. CIC offers contract surety bonds in the non-construction segment of the market which secure performance under supply, service and maintenance contracts.

CSIC conducts all of its business on an authorized, non-admitted basis nationally and writes primarily specialty lines of property and casualty insurance, including the professional lines of business.

Platte River is licensed in the 50 states and the District of Columbia and operates in conjunction with CIC, primarily providing surety products and offering pricing flexibility in those jurisdictions where both CIC and Platte River are licensed.

Effective January 1, 2014, CapSpecialty was recapitalized pursuant to a series of transactions which included the exchange by AIHL of its common stock in CapSpecialty for Series A Convertible Preferred Stock carrying a five percent preference, or the "Preferred Stock," and the subsequent sale by AIHL to TransRe of 24.9 percent of the Preferred Stock for a cash purchase price based on CapSpecialty's December 31, 2013 GAAP book value. At the same time, CapSpecialty reserved shares of restricted common stock, or the "Restricted Stock," which were subordinate to the Preferred Stock, for issuance to the management of CapSpecialty pursuant to a restricted stock plan. In connection with the July 2019 retirement of CapSpecialty's Chief Executive Officer, AIHL repurchased the Restricted Stock issued to CapSpecialty management, and TransRe transferred its Preferred Stock to Alleghany.

AIHL Re and CapSpecialty entered into an intercompany reinsurance contract, effective July 1, 2015, pursuant to which AIHL Re provides CapSpecialty with coverage primarily for adverse development on certain net loss and allocated loss adjustment expenses, or "LAE," in excess of its carried reserves at June 30, 2015. AIHL Re's commitments are intended to cover the statutory collateral requirements at CapSpecialty, if and when necessary, and AIHL Re's obligations are subject to an aggregate limit of \$50.0 million. See Note 5(e) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional detail on the intercompany reinsurance contract.

As of December 31, 2020, the statutory surplus of CIC was approximately \$281 million, which included the statutory surplus of CSIC of approximately \$61 million and the statutory surplus of Platte River of approximately \$53 million, each as determined in accordance with SAP. As of December 31, 2020, the consolidated equity of CapSpecialty was \$414 million, as determined in accordance with GAAP.

Distribution. CapSpecialty conducts its insurance business through independent wholesale brokerage and retail agents and general insurance agents located throughout the U.S. As of December 31, 2020, CapSpecialty had 64 general agents licensed to write property and casualty and surety coverages, approximately 153 brokers specializing in professional liability coverages and approximately 256 independent agents licensed to write surety coverages only. Certain independent agents have binding authority for specific business owner policy products, including property and liability coverages and non-contract surety products.

Underwriting. Elements of CapSpecialty's underwriting process include prudent risk selection, appropriate pricing and coverage customization. All accounts are reviewed on an individual basis to determine underwriting acceptability. CapSpecialty is a subscriber to the Insurance Service Organization, or "ISO," and the Surety and Fidelity Association of America, or "SFAA," insurance reference resources recognized by the insurance industry. CapSpecialty's underwriting procedures, rates and contractual coverage obligations are based on procedures and data developed by ISO for property and casualty lines and by SFAA for surety lines. Underwriting acceptability is determined by type of business, claims experience, length of time in business and business experience, age and condition of premises occupied and financial stability. Information is obtained from, among other sources, agent applications, financial reports and on-site loss control surveys. If an account does not meet pre-determined acceptability parameters, coverage is declined. If an in-force policy becomes unprofitable due to extraordinary claims activity or inadequate premium levels, a non-renewal notice is issued in accordance with individual state statutes and rules.

Ratings. CIC, CSIC and Platte River are rated A (Excellent) by A.M. Best.

Alleghany Capital Segment

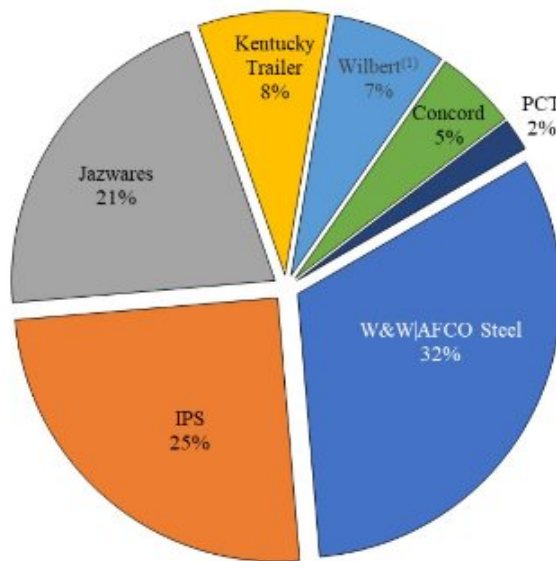
We own and support a diverse portfolio of non-financial businesses primarily through Alleghany Capital. Alleghany Capital's businesses include:

- *PCT.* On April 26, 2012, we acquired a controlling interest in PCT, a holding company headquartered in Rockford, Illinois, with four operating businesses: (i) Bourn & Koch, Inc., a provider of precision automated machine tool solutions, acquired in April 2012; (ii) Diamond Technology Innovations, Inc., a manufacturer of waterjet orifices and nozzles and a provider of related services, acquired in October 2016; (iii) Coastal Industrial Distributors, LLC, a provider of high-performance solid carbide end mills, acquired in June 2019; and (iv) Supermill LLC, a manufacturer of high-performance carbide end mills, acquired in March 2020. Prior to April 1, 2019, the noncontrolling interests of PCT were approximately 11 percent. All noncontrolling interest holders of PCT have exercised their repurchase options and sold their ownership interests to PCT effective April 1, 2019.
- *Kentucky Trailer.* On August 30, 2013, we acquired a controlling interest in Kentucky Trailer, a manufacturer of custom trailers and truck bodies for the moving and storage industry and other markets, headquartered in Louisville, Kentucky. Kentucky Trailer has made two recent acquisitions of controlling interests in manufacturers of aluminum feed transportation equipment. As of December 31, 2020, we owned approximately 77 percent of the common equity of Kentucky Trailer, as well as a preferred equity interest.
- *Jazwares.* On July 31, 2014, we invested in Jazwares, a global toy and musical instrument company, headquartered in Sunrise, Florida, for a 30 percent interest. On April 15, 2016, we acquired a controlling interest in Jazwares and, beginning on that date, the results of Jazwares have been included in our consolidated results. Prior to April 15, 2016, Jazwares was accounted for under the equity method of accounting. In 2016, Jazwares acquired a musical products business and made two smaller acquisitions in 2018. On October 1, 2019, Jazwares acquired the outstanding equity of Wicked Cool Toys, LLC, or "WCT," a global toy company based in Bristol, Pennsylvania. On April 1, 2020, Jazwares acquired Kelly Toy Holdings, LLC, or "Kelly Toy," a plush toy manufacturer based in Los Angeles, California. As of December 31, 2020, we owned approximately 76 percent of Jazwares.
- *IPS.* On October 31, 2015, we acquired a controlling interest in IPS, a design, engineering, procurement, construction management and validation service provider focused on the global pharmaceutical and biotechnology industries, headquartered in Blue Bell, Pennsylvania. As of December 31, 2020, we owned approximately 85 percent of IPS.
- *W&W|AFCO Steel.* On April 28, 2017, we acquired a controlling interest in W&W|AFCO Steel, a structural steel fabricator and erector, headquartered in Oklahoma City, Oklahoma. On February 7, 2018, W&W|AFCO Steel acquired Hirschfeld Holdings, LP, or "Hirschfeld," a fabricator of steel bridges and structural steel for stadiums, airports and other large commercial and industrial projects. As of December 31, 2020, we owned approximately 80 percent of W&W|AFCO Steel.
- *Concord.* On October 1, 2018, we acquired a controlling interest in Concord, a hotel management and development company, headquartered in Raleigh, North Carolina. As of December 31, 2020, we owned approximately 85 percent of Concord.

- *Wilbert*. On August 1, 2017, we acquired a 45 percent interest in Wilbert, a provider of products and services for the funeral and cemetery industries and precast concrete markets, headquartered in Overland Park, Kansas. On April 1, 2020, we acquired an additional approximately 55 percent of Wilbert we previously did not own and, as of that date, the results of Wilbert were included in our consolidated results. Prior to April 1, 2020, Wilbert was accounted for under the equity method of accounting. As of December 31, 2020, we owned approximately 100 percent of Wilbert.

Alleghany Capital's subsidiaries report the sales of goods and services as noninsurance revenue. See Note 1(p) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for a discussion of our noninsurance revenue and related accounting policies. Alleghany Capital noninsurance revenues for 2020 were approximately \$2.5 billion, with W&W|AFCO Steel, IPS and Jazwares accounting for the majority of such revenues.

2020 Alleghany Capital Noninsurance Revenue



(1) From April 1, 2020 through December 31, 2020.

Corporate Activities

At the Alleghany parent company-level, we seek out attractive investment opportunities, including strategic investments in operating companies, delegate responsibilities to competent and motivated managers at the operating business-level, set goals for our operating businesses, assist managers in the achievement of these goals, define risk parameters and appropriate incentives for our operating businesses and monitor progress against their long-term objectives.

We own certain holding company investments and wholly-owned subsidiaries, including:

- *Roundwood*. Our public equity investments are managed primarily by Roundwood.
- *Alleghany Properties*. We own and manage properties in the Sacramento, California region through Alleghany Properties. These properties include primarily improved and unimproved commercial land, as well as residential lots. As of December 31, 2020, Alleghany Properties owned approximately 106 acres of property in various land use categories ranging from multi-family residential to commercial.

Prior to its sale on December 31, 2020, we also owned SORC. In June 2011, we formed SORC, an exploration and production company focused on enhanced oil recovery, headquartered in Golden, Colorado. From formation through December 31, 2020, we invested approximately \$276 million in SORC. In the first half of 2020, SORC's oil field assets were written down to estimated fair value, which primarily reflected a significant decline in oil prices, less costs to sell. In the second half of 2020, SORC's oil field assets were sold at values that approximated their reduced carrying values.

Catastrophe Risk Management

Our reinsurance and insurance subsidiaries are exposed to natural catastrophe events, such as hurricanes, other windstorms and earthquakes, and man-made catastrophe events such as a major terrorist event, the bankruptcy of a major company or a marine or an aviation disaster. In 2020, we also incurred significant amounts of catastrophe losses arising from the COVID-19 global pandemic, or the “Pandemic.” These natural or man-made catastrophe events may expose our reinsurance and insurance subsidiaries to underwriting losses across multiple lines of business and, in any given year, could have a material adverse effect on our financial condition, results of operations, cash flows and liquidity. The extent of losses caused by catastrophes is a function of the amount and type of insured exposure in the area affected by the event, as well as the severity of the event, potentially mitigated by any reinsurance coverage purchased by our reinsurance and insurance subsidiaries. Our reinsurance and insurance subsidiaries take certain measures to mitigate the impact of catastrophe events, including considering catastrophe risks in their underwriting and pricing decisions, monitoring and modeling accumulated exposures and managing exposure in key geographic zones and product lines that are prone to catastrophe events. Our reinsurance and insurance subsidiaries also use reinsurance to further limit their exposure to catastrophes, as is discussed in more detail under “Reinsurance Protection” below.

We assess the probability of occurrence and severity of catastrophe events through the use of industry recognized models and other techniques. Where appropriate, we supplement these models with our own assessment of exposures which, in our view, may not be appropriately captured by these models. In addition, our reinsurance and insurance subsidiaries use modeled loss scenarios and internal analyses to set risk retention levels and help structure their reinsurance programs in an effort to ensure that single zone and aggregate catastrophe exposures conform to established subsidiary and group-level risk tolerances and fit within the existing exposure portfolio. We consider how climate change may be changing the nature of storms as well as the frequency and potential severity. Our loss estimates for zonal and aggregate catastrophe exposures are updated and reviewed against tolerances as part of our risk oversight processes on a quarterly basis. Risk tolerances are subject to change based on our view of the risk-return characteristics of business being underwritten.

There is no single standard methodology or set of industry standard assumptions to project possible losses related to catastrophe exposures and the form and quality of the data obtained, including data obtained from insureds and ceding companies, and used in these models are not uniformly compatible with the data requirements of all models. Therefore, the use of different methodologies and assumptions could materially change the projected losses. Finally, these modeled losses may not be comparable with estimates made by other companies.

Reinsurance Protection

General

Our reinsurance and insurance subsidiaries reinsure portions of the risks they underwrite in order to reduce the effect of individual or aggregate exposure to losses, manage capacity, protect capital resources, reduce volatility in specific lines of business, improve risk-adjusted portfolio returns and enable them to increase gross premium writings and risk-capacity without requiring additional capital. Our reinsurance and insurance subsidiaries generally purchase reinsurance and retrocessional coverages from highly-rated third-party reinsurers or on a collateralized basis. If the assuming reinsurers are unable or unwilling to meet the obligations assumed under the applicable reinsurance agreements, our reinsurance and insurance subsidiaries would remain liable for such reinsurance portion not paid by these reinsurers. As such, funds, trust agreements and letters of credit are held to collateralize a portion of our reinsurance and insurance subsidiaries’ reinsurance recoverables, and our reinsurance and insurance subsidiaries reinsure portions of the risks they underwrite or assume with multiple reinsurance programs. A summary of the more significant programs follows.

TransRe enters into various retrocession arrangements, including property catastrophe retrocession contracts, to manage the effects of individual or aggregate exposure to losses, reduce volatility in specific lines of business, improve risk-adjusted portfolio returns, strengthen its market position and enhance capital efficiency. These include excess-of-loss and quota share treaties in both traditional rated and collateralized form, as well as catastrophe bonds. TransRe’s retrocession protections generally have a one-year term and renewal dates occur throughout the year, with the majority renewing at January 1. The catastrophe bonds, however, have a four-year term, with maturities in 2022 and 2023.

RSUI reinsures its property lines of business through a program consisting of surplus share treaties, facultative placements and per risk and catastrophe excess of loss treaties. RSUI’s catastrophe reinsurance program and property per risk reinsurance program each run on an annual basis from May 1 to the following April 30 and portions expired on April 30, 2020. Both programs were renewed on May 1, 2020 with substantially similar terms as the expired programs.

Terrorism Act

With respect to potential losses arising from acts of terrorism, the Terrorism Risk Insurance Act of 2002, as extended and amended, most recently by the Terrorism Risk Insurance Program Reauthorization Act of 2015, which we collectively refer to as the “Terrorism Act,” established a program to provide federal assistance to the insurance industry in order to meet the needs of

commercial insurance policyholders for coverages against losses due to certain acts of terrorism. The Terrorism Act fixes the insurer deductible at 20 percent of an insurer's direct earned premium of the preceding calendar year. The Terrorism Act also initially fixed the federal share of compensation at 85 percent of insured losses that exceed insurer deductibles. As provided in the Terrorism Act, beginning on January 1, 2016, the federal share began to decrease by 1 percentage point per calendar year and it decreased on that basis until the federal share was equal to 80 percent as of January 1, 2020. On December 20, 2019, President Trump signed into law a seven-year extension of the Terrorism Act continuing through December 31, 2027. The Terrorism Act is administered by the U.S. Secretary of the Treasury.

The Terrorism Act applies to foreign or domestic acts of terrorism occurring within the U.S. (including in the U.S. territorial sea and the Outer Continental Shelf), at U.S. missions abroad or on U.S. flag vessels or aircraft. In return for requiring insurers writing certain lines of property and casualty insurance to offer coverage to commercial insurance policyholders against specified acts of terrorism, the Terrorism Act requires the U.S. federal government to reimburse such insurers for the federal share (80 percent, as of January 1, 2020) of insured losses during a program year resulting from such acts of terrorism above a statutorily-defined deductible. In addition, federal reimbursement will only be paid under the Terrorism Act if the aggregate industry insured losses resulting from a covered act of terrorism exceed \$200.0 million for insured losses occurring in 2020 and for calendar years thereafter, but no payment will be made for any portion of aggregate industry insured losses that exceeds \$100.0 billion during a particular calendar year.

In general, TransRe does not provide coverage for certified acts of terrorism, as defined by the Terrorism Act, but it is nonetheless exposed to potential losses related to both certified and uncertified acts of terrorism in the U.S. or elsewhere, such as from terrorism-specific treaty coverages offered to ceding companies or terrorism risk pools outside of the U.S. on a limited basis, and with respect to other lines of business from the assumption of terrorism risk in marine, aviation and other casualty treaties. Although TransRe assumes such terrorism risk after careful underwriting consideration and, in many cases, with limitations, a major terrorist event could have a material adverse impact on TransRe and us.

Approximately 15.9 percent of all policies and approximately 9.0 percent of property policies written by RSUI in 2020 contained coverage for domestic and foreign acts of terrorism. RSUI uses various underwriting strategies to mitigate its exposure to terrorism losses. In addition, its casualty reinsurance programs provide coverage for domestic and foreign acts of terrorism. RSUI's property reinsurance programs provide coverage only for domestic acts of terrorism and, as a result, RSUI is liable for losses under property policies that provide coverage for foreign acts of terrorism, subject to potential Terrorism Act reimbursement.

Reinsurance Security Committee

We have established a Reinsurance Security Committee, which includes certain of our officers and the chief financial officers (or their designees) of each of TransRe, RSUI and CapSpecialty. The Reinsurance Security Committee meets to track, analyze and manage the use of reinsurance by our reinsurance and insurance subsidiaries. The Reinsurance Security Committee also considers and oversees the limits on the maximum amount of unsecured reinsurance recoverables that should be outstanding from any particular reinsurer, the lines of business that should be ceded to a particular reinsurer and, where applicable, the types of collateral that should be posted by a reinsurer. As of December 31, 2020, our reinsurance and insurance subsidiaries had total reinsurance recoverables of \$1,781.1 million, consisting of \$1,703.7 million of ceded outstanding loss and LAE and \$85.3 million of recoverables on paid losses, less \$7.9 million allowance for credit losses. The reinsurance purchased by our reinsurance and insurance subsidiaries does not relieve them from their obligations to their policyholders and cedants and, therefore, the financial strength of their reinsurers is important. Approximately 71 percent of our reinsurance recoverables balance as of December 31, 2020 was due from reinsurers having an A.M. Best financial strength rating of A (Excellent) or higher, with a majority of the other reinsurance recoverables being secured by funds held, trust agreements or letters of credit. As of December 31, 2020, our reinsurance and insurance subsidiaries had an allowance for credit losses of \$7.9 million. Information related to concentration of reinsurance recoverables can be found in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations – Reinsurance Recoverables" of this Form 10-K and Note 5(b) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K. Information regarding the risks faced by our reinsurance and insurance subsidiaries with respect to their use of reinsurance can be found on pages 65 and 66 of this Form 10-K.

Competition

The reinsurance and insurance industry is highly competitive, and industry consolidation has created an even more competitive business environment. Competition in the businesses of our reinsurance and insurance subsidiaries is based on many factors, including the perceived financial strength of the company, premiums charged, other terms and conditions offered, services provided, commissions paid to producers, ratings assigned by independent rating agencies, speed of claims payment and reputation and experience in the lines of business to be written.

Our reinsurance and insurance subsidiaries compete with a large number of major U.S. and non-U.S. reinsurers and insurers in their selected lines of business, including regional companies, mutual companies, specialty insurance companies, underwriting agencies, government-owned or subsidized facilities, European underwriting syndicates and diversified financial services companies. In our reinsurance segment, TransRe's property and casualty businesses compete on a worldwide basis. In our insurance segment, RSUT's property and casualty businesses, and CapSpecialty's admitted property and casualty businesses and surety and non-admitted specialty businesses, compete on a national basis. Some of these competitors have significantly more premiums, capital and resources than our reinsurance and insurance subsidiaries.

In addition to competition from the reinsurance industry, TransRe faces competition from the capital markets, as well as some traditional reinsurers, which from time to time produce alternative products or reinsurance vehicles (such as collateralized reinsurance, reinsurance securitizations, catastrophe bonds and various derivatives, such as swaps and sidecars) that may compete with certain types of reinsurance, such as property catastrophe. Hedge funds also provide reinsurance and retrocessional protections through captive companies or other alternative transactions on a fully collateralized basis for property and energy catastrophe business. Over time, these initiatives could significantly affect supply, pricing and competition in the reinsurance industry. Our reinsurance and insurance subsidiaries may also compete with new entrants into the reinsurance and insurance markets, including companies with new or "disruptive" technologies or business models.

A discussion of the risks faced by our reinsurance and insurance subsidiaries due to competition within, and the cyclical nature of, the reinsurance and insurance businesses can be found on pages 64 and 65 of this Form 10-K.

The various industries in which Alleghany Capital's subsidiaries operate are highly competitive, though the nature and degree of such competition varies greatly by company and industry. Competition is based on many factors, including the perceived financial strength, expertise and reputation of the company, the quality and timeliness of the goods and services being provided, prices charged for goods and services and other contractual terms and conditions associated with the sale of goods and services.

Human Capital

Alleghany Parent. Alleghany's extensive history and focus on its long-term legacy inform our culture, strategy and compensation. The Alleghany parent company comprises a small group of highly-experienced professionals and additional support staff. In general, our professionals have all been recruited mid-career and we benefit from the accumulated expertise they have achieved before coming to Alleghany. From a culture perspective, although we must offer competitive compensation, we do not seek to compete for executive talent solely on the basis of compensation. We also compete by offering a unique professional opportunity to work in a high-integrity environment where the focus is on building stockholder value over the very long term. Our collaborative, team-oriented culture is a key driver of retention. Our retention efforts, which include compensation aspects, result in parent-level employees with long tenures, which fits with our long-term financial results orientation.

Subsidiary Level. Given the small number of parent-level executives and employees, Alleghany's subsidiaries employ over 99% of our consolidated employees, as shown in the chart below.

Alleghany Capital's subsidiaries have employees engaged across a diverse group of businesses and sectors, including: (i) hotel services (Concord); (ii) manufacturing (W&W/AFCO Steel, Wilbert, Kentucky Trailer and PCT); (iii) engineering and related consulting services (IPS); and (iv) product design, development and marketing (Jazwares).

Concord, which has the most employees of any of our subsidiaries, has a strong reputation as one of the most employee-centric businesses in the hospitality industry, and has a number of initiatives that aim to build on its reputation.

Safety. The safety of all of our employees is our highest priority. During the ongoing Pandemic, we have taken extensive measures to ensure that our employees remain safe. Many of our subsidiary locations, as well as our headquarters, have permitted or mandated that employees work remotely. For all of our offices, hotels, factories and other facilities, we have taken a number of steps to enhance the safety of the physical environment, such as improving air filtration, social distancing guidelines, use of face coverings and enhanced cleaning.

Given that most of the employees at our Alleghany Capital subsidiaries are involved in manufacturing or hotel services, we have an intense focus on safety, with each Alleghany Capital subsidiary board meeting starting with a report on key safety statistics. Among the safety-related statistics that we monitor is the "Days Away Restricted or Transferred" rate, or "DART," as promulgated by the Occupational Safety and Health Administration, or "OSHA." When expressed as the rate of incidents per 100 full-time equivalent employees at the Alleghany Capital subsidiary, DART incidents ranged across subsidiaries from 0.0 and 2.3 for 2020. As of December 31, 2020, all of our DART metrics at Alleghany Capital's subsidiaries for the trailing 12 months were determined to be lower than their most relevant industry benchmark, as published by the Bureau of Labor Statistics.

Diversity. We support equal opportunity for all employees without regard to race, gender, ethnicity, or sexual orientation. In doing so, we acknowledge and seek to address the existence of possible hidden biases in hiring and promotion practices. We also support the objective of a diverse board of directors, and intend to continue to enhance the diversity of the board composition.

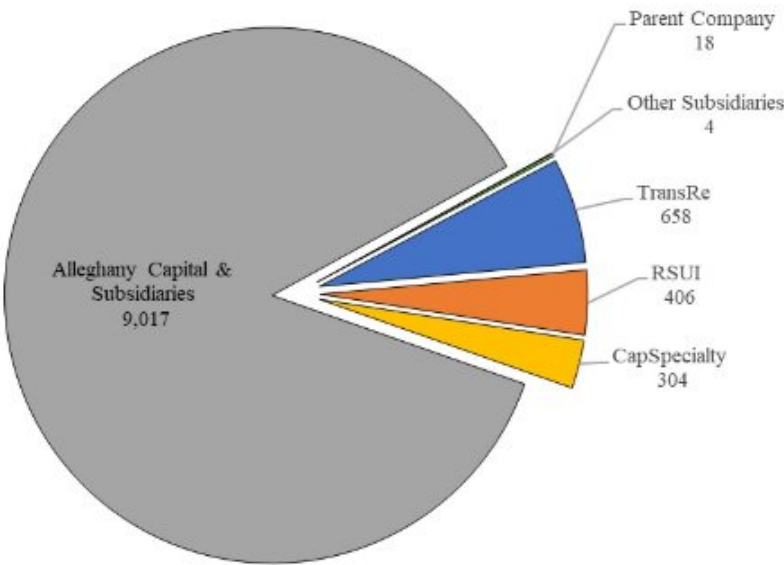
in the future. We have made an effort in recent years to have a more diverse employee base and one more reflective of the population at large. In 2020, we commenced a formal company-wide project with the assistance of an outside consulting firm to further our efforts in this area.

Executive Compensation. Our executive compensation programs have been effective in supporting long-term, sustainable growth by providing reasonable, capped incentives for executive management – both at the Alleghany parent-level and our key subsidiaries – that encourage executives to think and act like owners, including being aware and sensitive to downside risk.

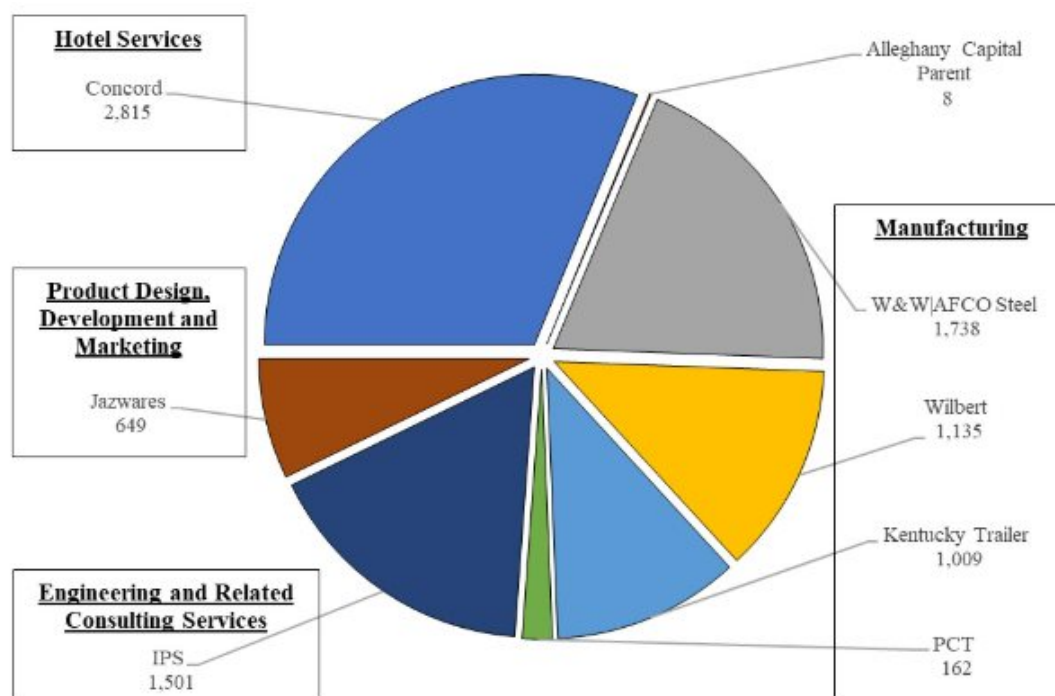
At the parent-level in particular, our incentive compensation is aligned with the performance of Alleghany in many ways, including the following: (1) all of our awards are “capped;” (2) our executives and officers are required to own specified levels of our stock; (3) we can “claw back” compensation in certain instances; (4) we do not offer stock options; (5) prerequisites are limited to insignificant amounts; and (6) we do not allow for an acceleration of vesting upon a termination or a change-in-control event.

At our reinsurance and insurance subsidiaries, incentive compensation is aligned with underwriting profit generation and book value growth, not premium production.

Employee Count. As of December 31, 2020, we had 10,407 employees, as presented below, compared with 10,786 as of December 31, 2019. The vast majority of our employees are located in the U.S. The decrease in our employees as of December 31, 2020 relates primarily to the Pandemic-driven reductions in staffing at Concord, partially offset by the impact of the acquisition of Wilbert, as noted previously. Our total annualized revenue per employee was approximately \$0.9 million and \$0.8 million as of December 31, 2020 and 2019, respectively.



As of December 31, 2020, Alleghany Capital and its subsidiaries had 9,017 employees, as presented below.



Regulation

General

Our reinsurance and insurance subsidiaries are subject to extensive supervision and regulation in the jurisdictions in which they operate and are required to comply with a wide range of laws and regulations applicable to insurance and reinsurance companies, although the degree and type of regulation varies from jurisdiction to jurisdiction. We expect the scope and extent of regulation globally, as well as regulatory oversight generally, to continue to increase. The material regulations under which we operate are described below.

U.S. Regulation

Our reinsurance and insurance subsidiaries are regulated in all U.S. jurisdictions in which they are licensed to conduct business. The extent of this regulation varies, but state insurance laws and regulations generally govern the financial condition of reinsurers and insurers, including standards of solvency, types and concentrations of permissible investments, establishment and maintenance of reserves, credit for reinsurance and requirements of capital adequacy. In addition, state insurance laws and regulations govern the business conduct of insurers, including marketing and sales practices and claims handling and require the approval of nearly all rates, policy forms and related materials for lines of insurance. U.S. insurance regulation generally aims to protect policyholders and to ensure that insurance companies remain solvent. The National Association of Insurance Commissioners, or the “NAIC,” which is discussed below, reviewed all aspects of financial regulation affecting insurance companies following the 2008 financial crisis. In furtherance of this initiative, the NAIC adopted new model laws, and numerous states subsequently enacted new laws and regulations, which have updated the U.S. insurance solvency framework.

Insurance Holding Company Regulation. As an insurance holding company, we and our reinsurance and insurance subsidiaries are subject to regulation under the insurance holding company laws enacted in those states where our reinsurance and insurance subsidiaries are domiciled or where they conduct business. These laws generally require insurance companies controlled by a holding company to register and file with their domestic insurance regulators information concerning their capital structure, ownership, financial condition, certain intercompany transactions, including dividends and distributions and general business operations.

The insurance holding company laws of some states, including with respect to the payment of dividends and distributions, may be more restrictive than the insurance holding company laws of other states. Under these laws, our reinsurance and insurance subsidiaries may not pay an “extraordinary” dividend or distribution without the prior approval of the domestic state insurance regulators. The insurance laws of New York, Wisconsin and New Hampshire, which represent some of our domiciliary states,

utilize a more restrictive “lesser than” calculation for determining whether a distribution constitutes an extraordinary dividend, thereby requiring prior regulatory approval. In New York, for instance, an extraordinary dividend means a dividend which, together with all dividends declared during the preceding twelve months, exceeds the lesser of 10 percent of the insurer’s surplus to policyholders as shown by its last annual statement, or 100 percent of adjusted net investment income during such period. In contrast, the insurance laws of other states, such as Delaware and Nebraska, where certain of our reinsurance and insurance subsidiaries are domiciled, utilize a less restrictive “greater than” test for extraordinary dividend calculations. In Delaware, for example, an extraordinary dividend includes any dividend, together with other dividends made within the preceding 12 months, that exceeds the greater of: (i) 10 percent of such insurer’s surplus as regards to policyholders as of the preceding year end; or (ii) the net income, excluding realized capital gains, for the twelve-month period ending the preceding year end. In addition, certain states where Alleghany’s reinsurance and insurance subsidiaries are domiciled prohibit a domestic insurance company from paying ordinary and extraordinary dividends except out of earned surplus.

In addition, insurance holding company laws and regulations to which we and our reinsurance and insurance subsidiaries are subject generally require prior notification and approval or non-disapproval by the domiciliary insurance regulators of certain other significant transactions, including sales, loans, reinsurance agreements and service agreements between an insurer subsidiary, on the one hand, and its holding company or other subsidiaries of the holding company, on the other hand.

Insurance holding company laws and regulations to which we and our reinsurance and insurance subsidiaries are subject also generally require the ultimate controlling person of the reinsurer or insurer to comply with certain informational requirements with the purpose of protecting such reinsurer or insurer from enterprise risk, including requiring the ultimate controlling person to file with the group’s lead state insurance regulator an annual enterprise risk report (also known as a Form F) that identifies the risks within the insurance holding company system that could have a material impact on the financial condition or liquidity of the reinsurer or insurer or the entire insurance holding company system.

The insurance holding company laws and regulations of the states in which our reinsurance and insurance subsidiaries are domiciled also generally require that, before a person can acquire direct or indirect control of a reinsurer or an insurer domiciled in the state (or any person controlling such domestic insurer or reinsurer), prior written approval must be obtained from the insurer’s domiciliary state insurance regulator. In determining whether to approve a person’s direct or indirect acquisition of control over an insurance company, the state insurance regulators are required to consider various factors, including the financial strength of the acquirer, the integrity and management experience of the acquirer’s board of directors and executive officers and the acquirer’s plans for the future operations of the reinsurer or insurer. Pursuant to applicable laws and regulations, “control” over a reinsurer or an insurer is generally presumed to exist if any person, directly or indirectly, owns, controls, holds the power to vote or holds proxies representing 10 percent or more of the voting securities of that reinsurer or insurer. Indirect ownership includes ownership of the shares of the ultimate controlling person’s common stock.

The acquisition of control laws described above may discourage potential acquisition proposals and may delay, deter or prevent an acquisition of control of us, including through transactions, and in particular unsolicited transactions, that some or all of our stockholders might consider to be desirable.

Risk Management. State insurance laws enacted in nearly all U.S. states (including all of the states where our reinsurance and insurance subsidiaries are domiciled) require reinsurers and insurers that exceed certain specified premium thresholds to maintain a framework for managing the risks associated with their entire holding company group, including non-insurance companies. In addition, these laws require that, at least annually, the reinsurer or insurer must prepare a summary report, or the “ORSA Report,” regarding its internal assessment of risk management and capital adequacy for the entire holding company group. The ORSA Report is filed, on a confidential basis, with the insurance holding company group’s lead state regulator and made available to other domiciliary regulators within the holding company group.

Corporate Governance. The NAIC has adopted the Corporate Governance Annual Disclosure Model Act and the Corporate Governance Annual Disclosure Model Regulation, or the “Corporate Governance Model Act,” which require insurers and reinsurers to disclose detailed information regarding their governance practices. The provisions of the Corporate Governance Model Act became an NAIC accreditation standard as of January 1, 2020, and as of December 31, 2020, the Corporate Governance Model Act had been adopted in all states.

Group Supervision and Group Capital. In response to international developments, the NAIC has established procedures for the supervision of domestic and international insurance groups, including those groups with both insurance and non-insurance entities. The NAIC has also adopted amendments to the Model Insurance Holding Company System Regulatory Act and Regulation, or the “Model Holding Company Act,” which would authorize U.S. regulators to lead or participate in the group-wide supervision of certain international insurance groups. These amendments to the Model Holding Company Act became an NAIC accreditation standard as of January 1, 2020, and as of December 31, 2020, these amendments to the Model Holding Company Act had been adopted by nearly all U.S. states (including all of the states where our reinsurance and insurance subsidiaries are domiciled).

Additionally, the NAIC has developed a group capital calculation tool using a risk-based capital, or “RBC,” aggregation methodology, or “AM” for all entities in an insurance holding company system. The goal is to provide U.S. regulators with a method to aggregate the available capital and the minimum capital of each entity in a group in a way that applies to all companies regardless of their structure. The NAIC adopted the group capital calculation methodology and amendments to the Model Holding Company Act. These amendments, which implement the annual filing requirement for the group capital calculation, now have to be adopted by state legislatures in order to become effective. The amendments to the Model Holding Company Act regarding group supervision and group capital relate to the standards incorporated in the U.S./EU Covered Agreement, discussed below. In addition, the treatment of the AM will be undergoing testing and comparison for comparability as part of the development of the International Association of Insurance Supervisors’ (IAIS) Holistic Framework and insurance capital standard, as discussed below under “International Regulation – Legislative and Regulatory Initiatives.” The outcome of this comparability determination may impact our international operations and the overall competitiveness of the U.S. domestic (re)insurance industry.

Pandemic Risk. There has been no formal action with respect to reinsurance and insurance coverage of Pandemic risk at the NAIC or at the federal level in the United States. Individual states, including states where our insurance subsidiaries have business operations or conduct reinsurance and insurance business, have required additional reporting and directed reinsurers and insurers to take actions to assist policyholders during the Pandemic. These actions have included premium reductions or forbearance of cancellations for non-payment of premium. Additionally, some states have asked reinsurers and insurers to assess and report on the expected impact of the Pandemic on their current and future operations. Several individual state legislators have proposed mandating retroactive coverage of pandemic related business interruption losses. To date, none of these proposals have progressed beyond the legislative committee stage. There appears to be a broadly held and bi-partisan consensus that Pandemic risk is generally uninsurable. At the federal level there are ongoing discussions around a federal response to the risk of future pandemics. There are several competing proposals originating from within the insurance industry, the policyholder community and Congress. It is too early to determine what proposal(s) will have the support of Congress and what impacts, if any, this response will have on our business operations.

Cybersecurity. The NAIC has adopted an Insurance Data Security Model Law, which, when adopted by the states, will require insurers, insurance producers and other entities required to be licensed under state insurance laws to comply with certain requirements under state insurance laws, such as developing and maintaining a written information security program, conducting risk assessments and overseeing the data security practices of third-party vendors. To date, the Insurance Data Security Model Law has been adopted by several states, including some of the states where our reinsurance and insurance subsidiaries are domiciled. In addition, certain states are developing or have developed regulations that may impose regulatory requirements related to cybersecurity on insurance and reinsurance companies (potentially including insurance and reinsurance companies that are not domiciled, but are licensed, in the relevant state). For example, the New York State Department of Financial Services, or the “NYDFS,” adopted a regulation pertaining to cybersecurity for all banking and insurance entities under its jurisdiction, effective as of March 1, 2017, which applies to us. In addition, we are subject to the cybersecurity provisions of the California Consumer Privacy Act of 2018, or “CCPA.” The CCPA includes a broad private right of action in the case of the breach of California consumers’ personal data stemming from a company’s failure to implement reasonable security measures. The potential risk may be limited by the scope of the CCPA, which excludes data subject to the Gramm-Leach-Bliley Act, or “GLBA.” However, this is not an entity-wide exception and a breach of personal information subject to the CCPA and not covered by GLBA could be a significant source of liability risk.

Rates and Policy Forms. The policy forms and various premium rates and rates for property or casualty or surety insurance policies of our insurance subsidiaries are subject to regulation in every state in which they conduct business. In many states, rates and policy forms must be filed with the applicable insurance regulator prior to their use, and in some states, rates and forms must be affirmatively approved by the applicable insurance regulator prior to use.

The rates and coverage terms of reinsurance agreements with non-affiliates are generally not subject to regulation by any governmental authority. As a practical matter, however, the rates charged by primary insurers and the policy terms of primary insurance agreements may affect the rates charged and the policy terms under associated reinsurance agreements.

Market Conduct Examinations. The insurance laws and regulations to which our insurance companies are subject govern their marketplace activities, affecting the form and content of disclosure to consumers, product illustrations, advertising, product replacement, sales and underwriting practices and complaint and claims handling. These provisions are generally enforced through periodic market conduct examinations. Such insurance laws and regulations also govern the licensing of insurance companies and agents and regulate trade practices.

Periodic Financial Reporting and Risk-Based Capital. Reinsurance and insurance companies in the U.S. are required to report their financial condition and results of operations in accordance with SAP prescribed or permitted by state insurance regulators in conjunction with the NAIC. State insurance regulators also prescribe the form and content of statutory financial statements, perform periodic financial examinations of reinsurers and insurers, set minimum reserve and loss ratio requirements, establish standards for permissible types and amounts of investments and require minimum capital and surplus levels. These statutory capital and surplus requirements include RBC rules promulgated by the NAIC. These RBC standards are intended to

assess the level of risk inherent in a reinsurance or an insurance company's business and consider items such as asset risk, credit risk, underwriting risk and other business risks relevant to its operations. In accordance with RBC formulas, a company's RBC requirements are calculated and compared with its total adjusted capital to determine whether the company may be undercapitalized and whether regulatory intervention is warranted. As of December 31, 2020, the total adjusted capital of our U.S. domiciled reinsurance and insurance companies exceeded the minimum levels required under applicable RBC rules, and each had excess capacity to write additional premiums in relation to these requirements. Specifically, as of December 31, 2020, the amount of statutory capital and surplus necessary to satisfy regulatory requirements was not significant in relation to the actual statutory capital and surplus of our reinsurance and insurance companies in the U.S.

The NAIC annually calculates certain statutory financial ratios for most reinsurance and insurance companies in the U.S. These calculations are known as the Insurance Regulatory Information System, or "IRIS," ratios. There are thirteen IRIS ratios for property/casualty insurers, with each ratio having an established "usual range" of results. The IRIS ratios assist state insurance departments in executing their statutory mandate to oversee the financial condition of insurance companies. A ratio falling outside the usual range is not considered a failing result; rather, unusual values are viewed as part of the regulatory early monitoring system. Furthermore, in some years, it may not be unusual for financially sound companies to have several ratios with results outside the usual ranges. The NAIC reports the ratios to state insurance departments that may then contact a company if four or more of its ratios fall outside the NAIC's usual ranges. Our reinsurance and insurance subsidiaries are not currently subject to regulatory scrutiny based on their respective IRIS ratios.

Guarantee Associations and Similar Arrangements. Certain U.S. insurance companies are required under the guaranty fund laws of most states in which they transact business to pay assessments up to certain prescribed limits to fund policyholder losses or liabilities of insolvent insurance companies. Our U.S. insurance companies also are required to participate in various involuntary pools, principally involving windstorms.

Statutory Accounting Principles. State insurance regulators have developed SAP as a basis of accounting used to monitor and regulate the solvency of reinsurers and insurers. SAP is primarily concerned with measuring a reinsurer's or insurer's surplus to policyholders. Accordingly, SAP focuses on valuing assets and liabilities of a reinsurer or insurer at financial reporting dates in accordance with applicable insurance laws and regulations in the state in which such reinsurer or insurer is domiciled. SAP determines, among other things, the amount of statutory surplus and statutory net income of our reinsurance and insurance subsidiaries and thus determines, in part, the amount of funds they have available to pay as dividends.

GAAP is concerned with a company's solvency, but it is also concerned with other financial measurements, such as income and cash flows. Accordingly, GAAP gives more consideration to appropriate matching of revenue and expenses and accounting for management's stewardship of assets than does SAP. Due to differences in methodology between SAP and GAAP, the values for assets, liabilities and equity reflected in financial statements prepared in accordance with GAAP are materially different from those reflected in financial statements prepared in accordance with SAP.

Federal Legislative and Regulatory Initiatives. As discussed in more detail under "Reinsurance Protection" above, the Terrorism Act established a federal assistance program to help the commercial property and casualty insurance industry cover claims arising from terrorism-related losses and regulates the terms of insurance related to the terrorism coverage provided by our insurance companies.

On July 21, 2010, President Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the "Dodd-Frank Act." The Dodd-Frank Act made extensive changes to the laws regulating financial services firms and required various federal agencies to adopt a broad range of new implementing rules and regulations.

It also created the Financial Stability Oversight Council, or the "FSOC," comprising the heads of federal agencies including the Securities and Exchange Commission, Comptroller of the Currency, U.S. Department of the Treasury and the Federal Reserve, to identify and respond to risks to the financial stability of the U.S. and to promote market discipline. The FSOC is authorized to designate a nonbank financial company as "systemically significant," or a "non-bank SIFI," if its material financial distress could threaten the financial stability of the U.S. A non-bank SIFI is subject to supervision by the Board of Governors of the Federal Reserve System as well as enhanced prudential standards, including stress tests, liquidity requirements, annual resolution plans or "living wills," and enhanced public disclosures. There are currently no such non-bank SIFIs designated by the FSOC.

On February 3, 2017, President Trump issued Executive Order 13772 on Core Principles for Regulating the U.S. Financial Systems in order to foster "vibrant financial markets through more rigorous regulatory impact analysis that addresses systemic risk and market failures." On April 21, 2017, President Trump issued a Presidential Memorandum which instructed the Treasury Secretary to review the FSOC designation process and on December 4, 2019, the FSOC approved final guidance related to a revised process for designating non-bank SIFIs, which substantially changed the FSOC's procedures by adopting an activities-based approach and moving away from the entities-based approach. The final guidance became effective on January 29, 2020. This change of measures to address systemic risk in the insurance industry could affect our reinsurance and insurance operations as could a determination that we or our counterparties are systemically significant.

The Dodd-Frank Act also created the Federal Insurance Office, or the “FIO,” within the U.S. Department of the Treasury which is designed to promote national coordination within the insurance sector and which has the authority, in part, to monitor all aspects of the insurance industry, including identifying issues or gaps in the regulation of reinsurers and insurers that could contribute to a systemic crisis in the insurance industry or the U.S. financial system. The Dodd-Frank Act authorizes the FIO to assist the Secretary of the Treasury and the Office of the U.S. Trade Representative in negotiating “covered agreements” with foreign jurisdictions regarding prudential measures for the supervision of global reinsurance and insurance markets. A covered agreement may preempt a state law if the FIO determines that the state law is inconsistent with a covered agreement’s terms and treats a non-U.S. reinsurer or insurer less favorably than a U.S. reinsurer or insurer.

Covered Agreements and Credit for Reinsurance. Currently, our non-U.S. reinsurance companies are indirectly subject to the effects of regulatory requirements imposed by the states in which their U.S. ceding insurers are domiciled. Under current U.S. law, an insurer is permitted to take credit on its statutory financial statements for the loss, expense or reserve obligations of its reinsurers if the reinsurer is licensed, accredited or approved in the U.S. insurer’s state of domicile or if the reinsurer posts collateral for the sole benefit of the U.S. insurer equal to 100% of the reinsurer’s obligations. Additionally, all states permit a U.S. insurer to take credit for reinsurance ceded to a non-U.S. reinsurer that posts collateral in amounts less than 100% of the reinsurer’s obligations if the reinsurer has been designated as a “certified reinsurer” and is domiciled in a country recognized by the state and the NAIC as a “qualified jurisdiction.” The reduced percentage of full collateral applied to a certified reinsurer is based upon an assessment of the reinsurer and its financial ratings.

In January 2017, the Treasury Department and the Office of the U.S. Trade Representative announced their successful completion of negotiations of a covered agreement with the EU, which was signed on September 22, 2017. The covered agreement addresses three areas of prudential insurance and reinsurance supervision: (i) group supervision; (ii) reinsurance; and (iii) the exchange of information between the U.S. and EU. The U.S./EU covered agreement eliminates the requirement for EU reinsurers to post reinsurance collateral in order for their U.S. ceding insurers to take credit for reinsurance. In order to be eligible for zero collateral treatment, an EU reinsurer must meet certain standards including, among others, minimum capital and solvency ratios, confirmation of financial condition by the reinsurer’s domestic regulator and claims payment standards. The covered agreement may preempt an inconsistent state law that treats EU reinsurers less favorably than a U.S. reinsurer. In addition, the covered agreement establishes group supervision practices that apply only to U.S. and EU insurance groups operating in both territories. For instance, the U.S./EU covered agreement provides that U.S. insurance groups with operations in the EU will be supervised at the worldwide level only by U.S. insurance regulators (and precludes EU insurance supervisors from exercising solvency and capital requirements over the worldwide operations of U.S. insurers for a sixty-month period), provided those U.S. regulators apply a group capital assessment calculating risk at the worldwide group level.

On December 20, 2018, in anticipation of the U.K.’s pending exit from the EU, the Treasury Department and the Office of the U.S. Trade Representative announced that they had signed an additional covered agreement with the U.K. The agreement between the U.S. and the U.K. largely reflects the provisions of the covered agreement between the U.S. and the EU and incorporates the same timeframes contained within it. We expect that, if successfully implemented, this covered agreement will resolve some of the regulatory uncertainty that will follow Brexit (as defined below) for U.S. reinsurers writing business in the U.K., as well as U.K.-based reinsurers writing business in the U.S.

Under the terms of both covered agreements, as of September 1, 2022, state credit for reinsurance laws that result in non-U.S. reinsurers subject to the covered agreements being treated less favorably than U.S. reinsurers may be preempted by the applicable covered agreement. Accordingly, on June 25, 2019, the NAIC adopted amendments to the NAIC’s Credit for Reinsurance Model Law to conform to the requirements of the covered agreements, which will become an NAIC accreditation standard as of September 1, 2022, with enforcement beginning on January 1, 2023. This has set the stage for each state to revise its credit for reinsurance laws in order to avoid federal preemption of its laws. The adopted amendments extend the zero reinsurance collateral provisions in the U.S./EU covered agreement to eligible reinsurers domiciled in U.S. jurisdictions that are accredited by the NAIC and to non-U.S. jurisdictions that have not entered into a covered agreement with the U.S. but the NAIC has identified as “Reciprocal Jurisdictions” pursuant to the NAIC Process for Evaluating Qualified and Reciprocal Jurisdictions. We cannot currently estimate the impact of changes to the laws and regulations as a consequence of any such adopted covered agreements on our business, financial condition or operating results.

Climate Change and Financial Risks. In September 2020, the NYDFS issued a circular letter to New York domestic and foreign insurance companies, which could impact some of our reinsurance and insurance subsidiaries. The circular letter states that the NYDFS expects insurers to integrate financial risks related to climate change into their governance frameworks, risk management processes and business strategies. For example, the letter states that an insurer should designate a board member or board committee, as well as a senior management function, that oversees the management of the financial risks associated with climate change. The NYDFS will publish guidance on climate-related financial supervision, and it will incorporate questions on this topic into their examinations starting in 2021.

International Regulation

General. TransRe is regulated in various foreign jurisdictions where it conducts business. In certain jurisdictions, TransRe operates through branches or representative offices of TRC and in other jurisdictions TransRe has local reinsurance or insurance subsidiaries, such as TRL in the U.K. and TRESA in Luxembourg.

The extent of the regulation varies by foreign jurisdiction, but generally governs licensing requirements, solvency, currency, amount and type of security deposits, amount and type of reserves and amount and type of local investments. International operations and assets held abroad may be materially and adversely affected by economic, political and other developments in foreign countries and the U.S., including possible changes in foreign and U.S. laws and regulations, nationalization and changes in regulatory policy, unexpected financial restrictions that foreign governments may impose and potential costs and difficulties in complying with a wide variety of foreign laws and regulations, as well as by the consequences of international hostilities and unrest. The risks of such occurrences and their overall effect upon us vary from country to country and cannot easily be predicted. International operations are also subject to risks related to complying, or monitoring compliance, with the requirements of anti-corruption laws, such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, and the economic and trade sanctions laws of the U.S., including but not limited to the regulations administered by the Office of Foreign Assets Control of the Treasury Department, or “OFAC,” and sanctions laws implemented by other countries in which TransRe operates. Further, regulations governing technical reserves and remittance of balances in some countries may hinder remittance of profits and repatriation of assets. A discussion of risks unique to international operations faced by TransRe’s offices that operate in jurisdictions outside the U.S. can be found on pages 67 through 70 of this Form 10-K.

The laws and regulations of a number of the foreign jurisdictions in which our reinsurance and insurance subsidiaries are domiciled, including the U.K., Luxembourg and Gibraltar, also generally require that, before a person can acquire direct or indirect control of a reinsurer or an insurer domiciled in that jurisdiction (or any person controlling such reinsurer or insurer), prior written approval must be obtained from the insurance regulator in that jurisdiction. In determining whether to approve a person’s direct or indirect acquisition of control over an insurance company, the insurance regulators are required to consider various factors, including the reputation and financial strength of the acquirer, the integrity and management experience of the acquirer’s board of directors and executive officers and the acquirer’s plans for the future operations of the reinsurer or insurer. Pursuant to applicable laws and regulations, “control” over a reinsurer or an insurer is generally presumed to exist if any person, directly or indirectly holds 10 percent or more of the shares or 10 percent or more of the voting power of that reinsurer or insurer, or shares or voting power which enables that person to exercise significant control over the management of the reinsurer or insurer. Indirect ownership includes ownership of the shares or voting power of the ultimate controlling person.

U.K. Regulation. Prior to December 2013, TransRe’s operations in the U.K. were conducted through a branch of TRC. Since December 2013, TransRe’s operations in the U.K. have been conducted by TRL and TRC’s branch in the U.K. TRL and TRC’s operations in the U.K. are supervised by the Prudential Regulatory Authority, or the “PRA,” which is responsible, among other things, for regulating the solvency of insurance and reinsurance companies, and the Financial Conduct Authority, or the “FCA,” which is responsible, among other things, for regulating market conduct. The PRA and the FCA have extensive powers to intervene in the affairs of a regulated entity, including the power to enforce and take disciplinary measures in respect of breaches of its rules by authorized firms and approved persons. TRL and TRC’s branch in the U.K. are each required to maintain a margin of solvency at all times in respect of the business conducted in accordance with PRA and FCA rules. The calculation of the margin of solvency depends on the type and amount of reinsurance business written, the type and amount of reserves held and other risk-related factors, including market risk, counterparty default risk and operational risk.

Luxembourg Regulation. TRESA is licensed to carry on reinsurance business in Luxembourg. As a result, TRESA is required to comply with The Law of 7 December 2015 on the Insurance Sector and the regulations and guidance issued by the Financial Supervisory Authority, or the “Commissariat aux Assurances.” Some of the significant aspects of the Luxembourg regulatory framework include complying with capital and solvency, corporate governance, risk management and internal control requirements. In addition, TRESA is subject to annual reporting requirements enacted by Commissariat aux Assurances.

Branch Regulation. TRC operates in a number of other jurisdictions through a series of foreign branches, including branches in Australia, Bermuda, Canada, France, Japan, the Hong Kong Special Administrative Region of the People’s Republic of China, the U.K., Switzerland and Singapore, and TRESA operates in Switzerland, Germany, France and Dubai through branches. As a result, TRC and TRESA are required, among other things, to meet local licensing, reserve, currency, investment and capital requirements as applicable for these branches.

Legislative and Regulatory Initiatives. Our reinsurance and insurance business throughout the EU is subject to an EU directive known as “Solvency II,” and its implementing rules, which have been in effect since January 1, 2016. The implementation of Solvency II represented a fundamental revision to the European regulatory regime that sought to enhance transparency and risk management and encourage a proactive approach to company solvency. It is built on a risk-based approach to setting capital requirements for reinsurers and insurers. The European Insurance and Occupational Pension Authority or “EIOPA” and the European Commission are undertaking a review of Solvency II which is anticipated to be completed in the third quarter of 2021. TransRe could be materially impacted by a review of Solvency II, which may reduce TRESA’s regulatory

solvency position by, for example, increased capital requirements or a reduction in eligible funds. Any changes to Solvency II could also materially impact TransRe, given that Solvency II affects the calculation of the solvency of international groups which, like TransRe, conduct reinsurance and insurance operations both inside and outside of the EU. Other risks include more complex and intensive regulatory reporting burdens, regulatory requirements that conflict with requirements in other jurisdictions, and shortages of skilled staff in critical areas such as the actuarial function, all of which may have a negative impact on the results of TRESA and the TransRe group. In addition, we could be required to undertake a significant amount of additional work if compliance with the Solvency II regime came into question which in turn may divert finite resources from other business related tasks. Immediately following the end of the U.K.'s transition period for leaving the EU, which expired on December 31, 2020, the U.K.'s prudential regime will be the same as Solvency II, although the two regimes may diverge over time.

Within the EU, EU member states, or "Member States," are required to adopt common standards for authorizing and supervising reinsurance companies that are headquartered in a Member State. TRC operates within the EU as a "Third Country Reinsurer" through a third country branch in France and on a cross-border basis. Currently, TransRe continues to conduct business within the EU through branches of TRC and TRESA with no significant impact on its operations. However, TransRe could be materially and adversely affected by rules adopted by a Member State related to Third Country Reinsurers. For example, TRC may be required to post additional collateral in EU countries or may need to consider restructuring its business in order to comply with the rules adopted in EU countries related to Third Country Reinsurers.

The referendum on the U.K.'s membership in the EU was held on June 23, 2016 and resulted in a vote in favor of the withdrawal of the U.K. from the EU, or "Brexit." As a result of Brexit, our U.K. operations lost their European Economic Area financial services passporting rights effective January 1, 2021. Following Brexit, the U.K. is undertaking a review of Solvency II and of the regulatory regime applicable to U.K. authorized insurers and reinsurers. TRL and TRC's branch in the U.K. could be materially impacted by any such review. Additional information on the uncertainty surrounding the implementation and effect of Brexit can be found on pages 69 through 70 of this Form 10-K.

In Argentina, Brazil, Ecuador, People's Republic of China and India, emerging markets where TransRe underwrites business on a cross-border basis, local regulations have recently been adopted that may operate to limit, restrict or increase the costs of TransRe's access to these markets. If this trend continues to spread to other jurisdictions, TransRe's ability to operate globally may be materially and adversely affected.

In addition to regulation within the U.S., the EU, the U.K. and the other non-U.S. jurisdictions where TransRe operates, we may be affected by regulatory policies adopted by the IAIS. Regulators in more than 200 jurisdictions and approximately 140 countries, representing both established and emerging markets, are working with the IAIS to consider changes to reinsurer and insurer solvency standards and group supervision of companies in a holding company system, including non-insurance companies. Current IAIS initiatives include development of a Common Framework for the Supervision of Internationally Active Insurance Groups, or "ComFrame," which has been in progress since 2010. ComFrame is intended to provide a global framework of basic standards for internationally active insurance groups, or "IAIGs," and a process for supervisors to cooperate in the supervision of IAIGs. A final form of ComFrame was formally adopted in November 2019 at the IAIS Annual General Meeting. Included in ComFrame was a risk-based, group-wide global insurance capital standard, or "ICS." Work on the ICS began in October 2013, and ICS Version 2.0 was adopted in November 2019 and a five-year monitoring period began in January 2020. During the monitoring period, ICS Version 2.0 will not trigger any supervisory action, but will be used for confidential reporting and discussion in supervisory colleges to provide feedback to the IAIS on the ICS design and performance.

In 2018, the IAIS announced that it would commence development of a Holistic Framework for the Supervision of Insurance Companies. This Holistic Framework also was adopted in November 2019 and was implemented from the beginning of 2020. This framework recognizes that systemic risk can arise both from sector-wide trends with regard to specific activities and exposures, as well as from a concentration of these activities and exposures in individual insurers. The Holistic Framework consists of an enhanced set of supervisory policy measures and powers of intervention, an annual IAIS global monitoring exercise and collective discussion on the outcomes and appropriate supervisory responses.

Regulatory Convergence

Regulators within and outside the U.S. are increasingly coordinating the regulation of multinational insurers by conducting a supervisory college. A supervisory college, as defined by the IAIS, is "a forum for cooperation and communication between the involved supervisors established for the fundamental purpose of facilitating the effectiveness of supervision of entities which belong to an insurance group; facilitating both the supervisor of the group as a whole on a group-wide basis and improving the legal entity supervision of the entities within the insurance group." We continue to assess the impact, if any, such coordination may have on insurance regulation and our reinsurance and insurance subsidiaries. The NYDFS advised TransRe to expect its inaugural Supervisory College in May of 2020; however, due to the Pandemic, the inaugural Supervisory College has been postponed indefinitely.

Reserves

Each of our reinsurance and insurance subsidiaries establishes reserves on its balance sheet for unpaid loss and LAE related to its property and casualty reinsurance and insurance contracts. The reserves for loss and LAE represent management's best estimate of the ultimate cost of all reported and unreported losses incurred through the balance sheet date. The process of estimating these reserves is inherently difficult and involves a considerable degree of judgment, especially in view of changing legal and economic environments that impact loss reserve development. Therefore, quantitative techniques have to be supplemented by subjective considerations and managerial judgment. In addition, conditions and trends that have affected development of liabilities in the past may not necessarily occur or affect liability development to the same degree in the future. See Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates" of this Form 10-K for additional detail on our estimation process for the liability for unpaid loss and LAE.

Information on prior year loss reserve development and incurred and paid loss and LAE development by segment can be found in Note 6(b) and Note 6(c), respectively, to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K.

The following table presents the reconciliation of the aggregate net loss and LAE reserves of our reinsurance and insurance subsidiaries reported in the annual statements filed with state insurance departments prepared in accordance with SAP and those reported in our consolidated financial statements prepared in accordance with GAAP for the three years ended December 31, 2020.

Reconciliation of Reserves for Loss and LAE from SAP Basis to GAAP Basis

	As of December 31,		
	2020	2019	2018
	(\$ in millions)		
Statutory reserves	\$ 10,555.5	\$ 9,598.7	\$ 9,796.0
Net reserves of non-U.S. subsidiaries (1)	711.4	745.8	596.9
Reinsurance recoverables (2)	1,703.7	1,583.9	1,857.4
GAAP reserves	<u>\$ 12,970.6</u>	<u>\$ 11,928.4</u>	<u>\$ 12,250.3</u>

(1) TransRe's non-U.S. subsidiaries do not file annual statements with state insurance departments in the U.S.

(2) Reinsurance recoverables in this table include only unpaid ceded loss and LAE reserves.

See Note 6 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on the loss and LAE reserves of our reinsurance and insurance subsidiaries.

Asbestos-Related Illness and Environmental Impairment Reserves

Our reinsurance and insurance subsidiaries' reserves for loss and LAE include amounts for risks related to asbestos-related illness and environmental impairment. The reserves carried for such claims, including the reserves for loss and LAE incurred but not reported, or "IBNR," claims, are based upon known facts and current law at the respective balance sheet dates. However, significant uncertainty exists in determining the amount of ultimate liability for asbestos-related illness and environmental impairment losses. This uncertainty is due to, among other reasons, inconsistent and changing court resolutions and judicial interpretations with respect to underlying policy intent and coverage and uncertainties as to the allocation of responsibility for resultant damages. Further, possible future changes in statutes, laws, regulations, theories of liability and other factors could have a material effect on these liabilities and, accordingly, future earnings. Although we are unable at this time to determine whether additional reserves, which could have a material adverse effect upon our results of operations, may be necessary in the future, we believe that our asbestos-related illness and environmental impairment reserves were adequate as of December 31, 2020.

At December 31, 2020 and 2019, the reserves for asbestos-related illness liabilities were approximately eleven and nine times, respectively, the average paid claims for the respective prior three year period. At both December 31, 2020 and 2019, the reserves for environmental impairment liabilities were approximately seven times the average paid claims for the respective prior three year period.

The following tables present the reconciliation of the beginning and ending gross reserve balances for unpaid loss and LAE related to asbestos-related illness and environmental impairment claims of our reinsurance and insurance subsidiaries for the three years ended December 31, 2020.

Reconciliation of Asbestos-Related Illness Claims Reserves for Loss and LAE

	2020	2019	2018
		(\$ in millions)	
Reserves as of January 1	\$ 37.5	\$ 36.3	\$ 39.4
Loss and LAE incurred	2.0	4.0	—
Paid losses	(1.1)	(2.8)	(3.1)
Reserves as of December 31	<u>\$ 38.4</u>	<u>\$ 37.5</u>	<u>\$ 36.3</u>
Type of reserves			
Case	\$ 20.1	\$ 18.1	\$ 14.4
IBNR	18.3	19.4	21.9
Total	<u>\$ 38.4</u>	<u>\$ 37.5</u>	<u>\$ 36.3</u>

Reconciliation of Environmental Impairment Claims Reserves for Loss and LAE

	2020	2019	2018
		(\$ in millions)	
Reserves as of January 1	\$ 80.3	\$ 97.4	\$ 119.0
Loss and LAE incurred	1.5	(7.3)	(8.1)
Paid losses	(7.2)	(9.8)	(13.5)
Reserves as of December 31	<u>\$ 74.6</u>	<u>\$ 80.3</u>	<u>\$ 97.4</u>
Type of reserves			
Case	\$ 17.3	\$ 19.3	\$ 25.4
IBNR	57.3	61.0	72.0
Total	<u>\$ 74.6</u>	<u>\$ 80.3</u>	<u>\$ 97.4</u>

See Note 12(c) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for additional information on asbestos-related illness and environmental impairment loss and LAE reserves of our reinsurance and insurance subsidiaries.

Item 1A. Risk Factors.

Our operating businesses and investments are subject to a number of risks and uncertainties, including those discussed below, which could have a material and adverse effect on our businesses, results of operations or financial condition. Our businesses may also be materially and adversely affected by risks and uncertainties not currently known to us or that we currently consider immaterial.

Risk Factors Related to our Business

We expect that the impact of the Pandemic will continue to materially affect our businesses, results of operations, financial condition and liquidity. On March 11, 2020, the World Health Organization declared the global spread of a novel coronavirus (COVID-19) to be a pandemic and on March 12, 2020, the President of the United States declared the COVID-19 outbreak in the United States to be a national emergency. The Pandemic and mitigation efforts by governments to attempt to control its spread have significantly impacted the global economy and our results of operations. We began to experience a negative impact on our results of operations arising from the Pandemic in the first quarter of 2020 and that impact continued throughout 2020, and we expect it to continue to negatively affect our results of operations in future periods, including in 2021. The duration and extent of the impact of the Pandemic on our business depends on future developments that cannot be accurately predicted at this time, such as the severity and transmission rate of the virus, the extent and effectiveness of containment actions and the impact of these and other factors on our employees, customers, suppliers and vendors. Given the scope and magnitude of the Pandemic, all of its direct and indirect consequences are not yet known and may not emerge for some time. The ongoing Pandemic presents risks and uncertainties to our operating businesses and investments, which could have a material adverse effect on our businesses, results of operations, financial condition and liquidity, including the following:

- *Estimated Loss Reserves.* The anticipated and unknown risks related to the Pandemic may cause additional uncertainty in the process of estimating loss reserves of our reinsurance and insurance subsidiaries. For example, the behavior of claimants and policyholders may change in unexpected ways (such as an increase in the number of fraudulent claims), we may see an increase in the number of claims for certain product lines, the disruption to the court system may impact the timing and amounts of claims settlements and the actions taken by governmental bodies, both legislative and regulatory, in reaction to the Pandemic and their related impacts are hard to predict. As a result, our estimated reserves may change.
- *Revenues and Cash Flows.* A prolonged economic downturn due to the Pandemic could result in a reduction in demand for our insurance and non-insurance products and services, which would negatively impact our revenues and cash flows. In addition, premium refunds or delayed receipt of premium payments, delayed payment of reinsurance recoverables and expedited claims payments in response to regulatory requirements as result of the Pandemic could have a negative impact on our revenues and cash flows.
- *Regulations, Orders and Proposed Legislation.* Federal, state and local government actions to address and contain the impact of the Pandemic may adversely affect us. For example, we are subject to legislative and/or regulatory action that seeks to retroactively mandate coverage for losses that policies of our reinsurance and insurance company subsidiaries were not designed or priced to cover. Currently, in some states there is proposed legislation to require insurers to cover business interruption claims irrespective of terms, exclusions or other conditions included in the policies that would otherwise preclude coverage. Regulatory restrictions or requirements could also impact pricing, risk selection and our rights and obligations with respect to our policies and insureds, including our ability to cancel policies or our right to collect premiums. At least one state regulator has issued an order requiring insurers to issue premium refunds, and regulators in other states could take similar actions. It is also possible that changes in economic conditions and steps taken by federal, state and local governments in response to the Pandemic could require an increase in taxes at the federal, state and local levels, which would adversely impact our results of operations. In addition, we are a holding company and conduct our operations principally through our regulated reinsurance and insurance company subsidiaries. We rely upon dividends and other permitted distributions from our regulated reinsurance and insurance company subsidiaries (including subsidiaries of AIHL and the TransRe holding company) as an important source of funds to meet our ongoing cash requirements, including our existing, and any future, debt service payments, and other expenses. Our regulated reinsurance and insurance company subsidiaries are subject to various regulatory restrictions that limit the maximum amount of dividends available to be paid by them without prior approval of the relevant regulatory authorities. In response to the Pandemic, it is possible that these regulatory restrictions may be increased which would decrease the amount of dividends we are permitted to receive from our regulated subsidiaries.
- *Heightened Cybersecurity Risks.* Having shifted to remote working arrangements in many of our locations, we face a heightened risk of cybersecurity attacks or data security incidents and are more dependent on internet and telecommunications access and capabilities.
- *Investments in Debt Securities, Equity Securities and Other Invested Assets.* The fair value of our investments in debt, equity securities and certain other invested assets fluctuates depending on general economic and market conditions. In early 2020, as the Pandemic disrupted global economic activity and caused financial markets to drop sharply, the fair value of our equity securities depreciated considerably. Despite a significant recovery of the depreciation of our equity securities portfolio experienced during the first quarter of 2020, the net depreciation of our equity securities during 2020 was \$110.5 million. Additionally, we recorded \$8.0 million of losses through a credit allowance for available for sale debt securities. As there is no reliable timeline for the ongoing vaccination campaign and the risk that existing vaccines may not be effective against variant COVID-19 strains, the lasting effects of the Pandemic could result in elevated volatility of economic activity and financial markets for the foreseeable future. By extension, the value of our investment portfolio would remain volatile. Prospectively, the sensitivity of the value of our investment portfolio relative to changes in broader financial markets can be approximated by the market beta of our equity holdings and the effective duration of our debt securities. As of December 31, 2020, the market beta and effective duration of our equity and debt securities were 0.9 and 4.3 years, respectively. A market beta of 0.9 suggests that, over time, the portfolio is expected to move consistently with the stock market, and a duration of 4.3 years suggests that, for a 1% move in interest rates, the fixed income portfolio should appreciate or depreciate by approximately 4.3 percent.

- *Heightened Risks of Downgrades, Impairments and Defaults.* We are subject to the risk that the issuers of debt securities we own or borrowers on commercial mortgage loans we have invested in may become less creditworthy or default on principal and interest payments they owe us. The longer and more severe the negative impact of the Pandemic, the more at risk our portfolio of investments in debt securities and commercial mortgage loans would be to credit downgrades, impairments and defaults. Exposures to industries and sectors most impacted by the shutdown of non-essential goods and services are at heightened risk of downgrades and other adverse credit events. These include all forms of exposures to hospitality, travel, retail, manufacturing, energy and consumer finance. The risks related to a prolonged shutdown are by no means limited to these sectors, but these are likely to be severely impacted. Though the pace of downgrades across credit markets slowed markedly in the second half of 2020 and adverse credit events were far fewer than feared, this activity could return if the Pandemic endures.
- *Deflationary Economic Environment.* In a deflationary scenario, economic conditions deteriorate as the value of a unit of currency in the future exceeds its value in the present. In addition to this dynamic reducing the incentive to borrow, which would hinder economic growth, servicing existing debt becomes more onerous for issuers, which in turn increases the likelihood of credit downgrades, impairments and defaults that could adversely affect our investment portfolio. Additionally, deflation generally presents challenges to generating sufficient levels of investment income necessary to meet our ongoing cash requirements.
- *Counterparty Credit Risk.* A prolonged economic downturn due to the Pandemic would increase our credit risk, reflecting our counterparty dealings with agents, brokers, customers, retrocessionaires, capital providers, and parties associated with our investment portfolio. If one or more of these counterparties experience operational or financial failures as a result of the impacts from the spread of Pandemic, or claim that they cannot perform due to a force majeure, it could have a material adverse effect on our businesses, results of operations, financial condition and liquidity.

In addition, adverse impacts from the Pandemic may include further declines in our equity securities portfolio, additional credit-related realized and unrealized losses on our debt securities and commercial mortgage portfolios, additional credit losses on our reinsurance recoverables and other receivables, further losses from event cancellation and other coverages from our reinsurance and insurance subsidiaries, negative impact to revenues and earnings of certain Alleghany Capital subsidiaries, and impairment of certain Alleghany Capital subsidiary goodwill and intangible assets. As a result of any one or a combination of the risks identified above, the Pandemic could have a material adverse effect on our businesses, results of operations, financial condition and liquidity.

The reserves for loss and LAE of our reinsurance and insurance subsidiaries are estimates and may not be adequate, which would require our reinsurance and insurance subsidiaries to establish additional reserves. Gross reserves for loss and LAE reported on our balance sheet as of December 31, 2020 were approximately \$13.0 billion. These loss and LAE reserves reflect management's best estimates of the cost of settling all claims and related expenses with respect to insured events that have occurred. Reserves do not represent an exact calculation of liability, but rather an estimate of what management expects the ultimate settlement and claims administration will cost for events that have occurred, whether known or unknown. These reserve estimates, which generally involve actuarial projections, are based on management's assessment of facts and circumstances currently known and assumptions about anticipated loss emergence patterns, including expected future trends in claims severity and frequency, inflation, court resolutions and judicial interpretations, reinsurance coverage, legislative changes and other factors.

The inherent uncertainties of estimating reserves are greater for certain types of liabilities, where long periods of time elapse before a definitive determination of liability is made and settlement is reached. Our liabilities for loss and LAE can generally be categorized into two distinct groups, short-tail business and long-tail business. Short-tail business refers to lines of business, such as property, for which losses are usually known and paid relatively soon after the loss actually occurs. Long-tail business describes lines of business for which specific losses may not be known and reported for some period and losses take much longer to emerge. Given the time frame over which long-tail exposures are ultimately settled, there is greater uncertainty and volatility in these lines than in short-tail lines of business. Our long-tail coverages consist of most casualty lines of business including professional liability, directors' and officers' liability, general liability, umbrella/excess liability and certain workers' compensation exposures. Some factors that contribute to the uncertainty and volatility of long-tail casualty business, and thus require a significant degree of judgment in the reserving process, include the inherent uncertainty as to the length of reporting and payment development patterns, the possibility of judicial interpretations or legislative changes that might impact future loss experience relative to prior loss experience and the potential lack of comparability of the underlying data used in performing loss reserve analyses. In general, reinsurance business for any particular line of business is longer-tailed and, by its nature, losses are more difficult to estimate than they are for comparable insurance business.

In periods with increased economic volatility, it becomes more difficult to accurately predict claims costs. It is especially difficult to estimate the impact of inflation on loss reserves given the current economic environment and related government

actions. Reserve estimates are continually refined in an ongoing process as experience develops and further claims are reported and settled. Adjustments to reserves are reflected in the results of the periods in which the adjustments are made. Because setting reserves is inherently uncertain, our current reserves could prove to be too low or too high in light of subsequent events. Should our reinsurance and insurance subsidiaries need to increase or decrease their reserves, our pre-tax income for the period would decrease or increase, respectively, by a corresponding amount. Although current reserves reflect our best estimate of the costs of settling claims, we cannot assure you that our reserve estimates will not change, perhaps by a material amount, in the future.

Because our reinsurance and insurance subsidiaries are property and casualty reinsurers and insurers, we face losses related to natural and man-made catastrophes. Property and casualty reinsurers and insurers are subject to claims arising out of catastrophes that may have a significant effect on their results of operations, liquidity and financial condition. Catastrophe losses, or the absence thereof, have historically had a significant impact on our results.

Natural or man-made catastrophes can be caused by various events, including hurricanes, other windstorms, earthquakes, floods, wildfires, as well as terrorist activities. The frequency and severity of catastrophes in any short period of time are inherently unpredictable. The extent of gross losses related to a catastrophe event is a function of both the total amount of insured exposure in the area affected by the event and the severity of the event, potentially mitigated by any reinsurance coverage purchased by our reinsurance and insurance subsidiaries. Most catastrophes are restricted to limited geographic areas; however, hurricanes, other windstorms, earthquakes and floods may produce significant damage when those areas are heavily populated. It is therefore possible that a catastrophic event or multiple catastrophic events could produce significant losses and have a material adverse effect on our financial condition and results of operations.

In addition, longer-term natural catastrophe trends may be changing due to climate change, a phenomenon that has been associated with extreme weather events linked to rising temperatures, and includes effects on global weather patterns, greenhouse gases, sea, land and air temperatures, sea levels, rain and snow. Climate change, to the extent it produces rising temperatures and changes in weather patterns, could impact the frequency or severity of weather events such as hurricanes, tornado activity, other windstorms, floods and wildfires. To the extent climate change increases the frequency and severity of such weather events, our reinsurance and insurance subsidiaries, particularly TransRe and RSUI, may face increased claims, particularly with respect to properties located in coastal areas. Our reinsurance and insurance subsidiaries take certain measures to mitigate the impact of such events by considering these risks in their underwriting and pricing decisions, including their management of aggregate exposure levels and through the purchase of reinsurance. To the extent broad environmental factors, exacerbated by climate change or otherwise, lead to increases in insured losses, particularly if those losses exceed the expectations of our reinsurance and insurance subsidiaries, our financial condition and results of operations could be materially and adversely affected.

With respect to terrorism, to the extent that reinsurers have excluded coverage for certain terrorist acts or have priced this coverage at rates that make purchasing such coverage uneconomic, our reinsurance and insurance subsidiaries will not have reinsurance protection and are exposed to potential losses as a result of any acts of terrorism. To the extent an act of terrorism is certified by the U.S. Secretary of the Treasury, we may be covered under the Terrorism Act. This coverage under the Terrorism Act does not apply to reinsurers. Information regarding the Terrorism Act and its impact on our insurance subsidiaries can be found on pages 49 and 50 of this Form 10-K.

In general, TransRe does not provide coverage for certified acts of terrorism, as defined by the Terrorism Act, but it is nonetheless exposed to potential losses related to both certified and uncertified acts of terrorism in the U.S. or elsewhere, such as from terrorism-specific treaty coverages offered to ceding companies or terrorism risk pools outside of the U.S. on a limited basis, and with respect to other lines of business from the assumption of terrorism risk in marine, aviation and other casualty treaties. Although TransRe assumes such terrorism risk after careful underwriting consideration and, in many cases, with limitations, a major terrorist event could have a material adverse impact on TransRe and us.

Finally, other catastrophes, such as an outbreak of a pandemic disease, the bankruptcy of a major company or a marine or aviation disaster, could also have a materially adverse effect on our business and operating results.

Significant competitive pressures may prevent our reinsurance and insurance subsidiaries from retaining existing business or writing new business at adequate rates. Our reinsurance and insurance subsidiaries compete with a large number of other companies in their selected lines of business. They compete, and will continue to compete, with major U.S. and non-U.S. reinsurers and insurers, other regional companies, mutual companies, specialty insurance companies, underwriting agencies, government-owned or subsidized facilities, European underwriting syndicates and diversified financial services companies. Many competitors have considerably more financial resources, greater experience and may offer more products or services than our reinsurance and insurance subsidiaries. Except for regulatory considerations, there are virtually no barriers to entry into the reinsurance and insurance industry.

Additionally, the reinsurance and insurance industry continues to consolidate and, accordingly, competition for customers will continue to increase. As a result, our reinsurance and insurance subsidiaries may incur greater customer retention and acquisition expense, which would affect the profitability of existing and new business. Further, as the industry continues to

consolidate, reinsurance and insurance companies that merge could have increased market size and capital resources with which to negotiate price reductions and retain more risk, decreasing pricing and demand for reinsurance.

Competition in the businesses of our reinsurance and insurance subsidiaries is based on many factors, including the perceived financial strength of a company, premiums charged, other terms and conditions offered, services provided, commissions paid to producers, ratings assigned by independent rating agencies, speed of claims payment and reputation and experience in the lines to be written. Such competition could cause the supply or demand for insurance to change, which could affect the ability of our reinsurance and insurance subsidiaries to price their products at adequate rates. If our reinsurance and insurance subsidiaries are unable to retain existing business or write new business at adequate rates, our results of operations could be materially and adversely affected.

In addition to competition from the reinsurance industry, TransRe faces competition from the capital markets, as well as some traditional reinsurers, which from time to time produce alternative products or reinsurance vehicles (such as collateralized reinsurance, reinsurance securitizations, catastrophe bonds and various derivatives, such as swaps and sidecars) that may compete with certain types of reinsurance, such as property catastrophe. Hedge funds may also provide reinsurance and retrocessional protections through captive companies or other alternative transactions on a fully collateralized basis for property and energy catastrophe business. Over time, these initiatives could significantly affect supply, pricing and competition in the reinsurance industry.

Our results may fluctuate as a result of many factors, including cyclical changes in the reinsurance and insurance industries. Historically, the performance of the property and casualty reinsurance and insurance industries has tended to fluctuate in cyclical periods of price competition and excess underwriting capacity, followed by periods of high premium rates and shortages of underwriting capacity. Although an individual reinsurance and insurance company's performance is dependent on its own specific business characteristics, the profitability of most property and casualty reinsurance and insurance companies tends to follow this market cycle. Further, this cyclical market pattern can be more pronounced in the reinsurance market in which TransRe competes and in the excess and surplus market in which RSUI primarily competes than in the standard insurance market. In addition, compared with historical cyclical periods, a cycle of increased price competition and excess underwriting capacity may continue for a prolonged period of time as new and existing reinsurance and insurance market participants and products continue to enter the reinsurance and insurance markets. Unfavorable market conditions may affect the ability of our reinsurance and insurance subsidiaries to write business at rates they consider appropriate relative to the risk assumed. If we cannot write business at appropriate rates, our business would be significantly and adversely affected.

When premium rates are high and there is a shortage of capacity in the standard insurance market, growth in the excess and surplus market can be significantly more rapid than growth in the standard insurance market. Similarly, when there is price competition and excess underwriting capacity in the standard insurance market, many customers that were previously driven into the excess and surplus market may return to the standard insurance market, exacerbating the effects of price competition.

Demand for reinsurance is influenced significantly by underwriting and investment results in both the standard insurance and the excess and surplus markets and market conditions. The supply of reinsurance is related to prevailing prices, the levels of insured losses and the levels of reinsurance industry surplus, among other factors, that, in turn, may fluctuate in response to changes in rates of return on investments being earned in the reinsurance industry. In addition, the supply of reinsurance is affected by a reinsurer's confidence in its ability to accurately assess the probability of expected underwriting outcomes, particularly with respect to catastrophe losses.

Since cyclicalities are due in large part to the collective actions of insurers, reinsurers and general economic conditions and the occurrence of unpredictable events, we cannot predict the timing or duration of changes in the market cycle. These cyclical patterns cause our revenues and net earnings to fluctuate. In addition, our results may fluctuate as a result of changes in economic, legal, political and social factors, among others.

We cannot guarantee that the reinsurers used by our reinsurance and insurance subsidiaries will pay in a timely fashion, if at all, and, as a result, we could experience losses even if reinsured. As part of their overall risk and capacity management strategy, our reinsurance and insurance subsidiaries purchase reinsurance by transferring or ceding part of the risk that they have underwritten to a reinsurance company in exchange for part of the premium received by our subsidiaries in connection with that risk. Although reinsurance makes the reinsurer liable to our reinsurance and insurance subsidiaries to the extent the risk is transferred or ceded to the reinsurer, our reinsurance and insurance subsidiaries remain liable for amounts not paid by a reinsurer. Reinsurers may not pay the reinsurance recoverables that they owe to our subsidiaries or they may not pay these recoverables on a timely basis. This risk may increase significantly if these reinsurers experience financial difficulties as a result of catastrophes, investment losses or other events. Accordingly, we bear credit risk with respect to our reinsurance and insurance subsidiaries' reinsurers, and if they fail to pay, our financial results would be adversely affected. As of December 31, 2020, reinsurance recoverables reported on our balance sheet were \$1.8 billion.

If market conditions cause reinsurance to be more costly or unavailable, our reinsurance and insurance subsidiaries may be required to bear increased risks or reduce the level of their underwriting commitments. As part of

their overall risk management strategy, our reinsurance and insurance subsidiaries purchase reinsurance for certain amounts of risk underwritten by them, including catastrophe risks. The reinsurance programs purchased by our subsidiaries are generally subject to annual renewal. Market conditions beyond their control determine the availability and cost of the reinsurance protection they purchase, which may affect the level of their business written and thus their profitability. If our reinsurance and insurance subsidiaries are unable to renew their expiring facilities or to obtain new reinsurance facilities, which could result as the number of companies offering reinsurance coverage declines due to industry consolidation, either their net exposures on future policies or reinsurance contracts would increase, which could increase the volatility of their results or, if they are unwilling or unable to bear an increase in net exposures, they would have to reduce the level of their underwriting commitments, especially catastrophe-exposed risks, which may reduce their revenues and net earnings. In certain reinsurance contracts, a cedant, to the extent it exhausts its original coverage under a reinsurance contract during a single coverage period (typically a single twelve-month period), can pay a reinsurance reinstatement premium to restore coverage during such coverage period. If our reinsurance and insurance subsidiaries exhaust their original and, if applicable, reinstated coverage under their third-party reinsurance contracts during a single coverage period, they will not have any reinsurance coverage available for losses incurred as a result of additional loss events during that coverage period. The exhaustion of such reinsurance coverage could have a material adverse effect on the profitability of our reinsurance and insurance subsidiaries in any given period and on our results of operations.

TransRe and RSUI attempt to manage their exposure to catastrophe risk partially through the use of catastrophe modeling software. The failure of this software to accurately gauge the catastrophe-exposed risks they write could have a material adverse effect on our financial condition, results of operations and cash flows. As part of their approach to managing catastrophe risk, TransRe and RSUI use a number of tools, including third-party catastrophe modeling software, to help evaluate potential losses. TransRe and RSUI use modeled loss scenarios and internal analyses to set their level of risk retention and help structure their reinsurance programs. Modeled loss estimates, however, have not always accurately predicted their ultimate losses with respect to catastrophe events. Accordingly, TransRe and RSUI periodically review their catastrophe exposure management approach, which may result in the implementation of new monitoring tools and a revision of their underwriting guidelines and procedures. However, these efforts may not be successful in sufficiently mitigating risk exposures and losses resulting from future catastrophes.

Our reinsurance and insurance subsidiaries are rated by rating agencies and a decline in these ratings could affect the standings of these units in the reinsurance and insurance industries and cause their premium volume and earnings to decrease. Ratings continue to be an important factor in establishing the competitive positions of reinsurance and insurance companies. Some of our reinsurance and insurance subsidiaries are rated by A.M. Best, S&P and/or Moody's, which we collectively refer to as the "Rating Agencies." The Rating Agencies' financial strength ratings reflect their opinions of a reinsurance or an insurance company's financial strength, operating performance, strategic position and ability to meet its obligations to policyholders, and are neither an evaluation directed to investors of a security nor a recommendation to buy, sell or hold a security. These ratings are subject to periodic review, and we cannot assure you that any of our reinsurance or insurance companies will be able to retain their current ratings. If the ratings of our reinsurance or insurance companies are reduced from their current levels by the Rating Agencies, their competitive positions could suffer and it would be more difficult for them to market their products. A significant downgrade could result in a substantial loss of business as customers move to other companies with higher financial strength ratings.

In addition, in general, if the financial strength ratings of TransRe's operating subsidiaries from the Rating Agencies fall below A-, a significant portion of TransRe's operating subsidiaries' contracts that contain rating agency triggers would allow customers to elect to take a number of actions such as terminating the contracts on a run-off or cut-off basis, requiring TransRe's operating subsidiaries to post collateral for all or a portion of the obligations or requiring commutation under the contracts. Some of these contracts, however, contain dual triggers, such as requiring both a ratings downgrade below A- and a significant decline in the statutory surplus of TransRe's operating subsidiaries before such cancellation or collateralization rights would be exercisable. Contracts may contain one or both of the aforementioned contractual provisions, or certain other collateralization or cancellation triggers. Whether a ceding company would exercise any of these cancellation rights would depend on, among other factors, the reason and extent of such downgrade or surplus reduction, the prevailing market conditions and the pricing and availability of replacement reinsurance coverage. We cannot predict the extent to which these contractual rights would be exercised, if at all, or what effect such exercises would have on our financial condition or future operations, but such effect potentially could be materially adverse to us.

TransRe may also enter into agreements with ceding companies that require it to provide collateral for its obligations, including where TransRe's obligations to these ceding companies exceed negotiated thresholds. These thresholds may vary depending on the ratings of TransRe's operating subsidiaries, and a ratings downgrade or a failure to achieve a certain rating may increase the amount of collateral TransRe is required to provide. An increase in the amount of collateral TransRe is obligated to provide to secure its obligations may have an adverse impact on, among other things, TransRe's ability to write additional reinsurance.

A limited number of brokers account for a large portion of TransRe's premiums; the loss of all or a substantial portion of the business provided by them may have an adverse effect on us. The great majority of TransRe's premiums are

written through brokers. Several large international brokers dominate the reinsurance brokerage industry, and TransRe derives a significant portion of its premiums from these brokers. Further, TransRe may become increasingly reliant on these brokers due to continued consolidation in the broker sector. The loss of all or a substantial portion of the business provided by these brokers could have a material adverse effect on us.

Difficult and volatile conditions in the global capital and credit markets and in the overall economy could materially and adversely affect the results of our reinsurance and insurance subsidiaries. Disruption and volatility in the global capital and credit markets and in the overall economy affects our businesses in a number of ways, including the following:

- disruption in the capital and credit markets may increase claims activity in our reinsurance business, such as directors' and officers' liability, errors and omissions liability and trade credit lines;
- volatility in the capital and credit markets makes it more difficult to access those markets, if necessary, to maintain or improve financial strength and credit ratings of our reinsurance and insurance subsidiaries or to generate liquidity;
- disruption in the overall economy may reduce demand for reinsurance and insurance products; and
- increases in inflation could result in higher losses on reinsurance contracts, particularly in longer-tailed lines of business, increased operating costs and a decrease in the fair value of our investment portfolio.

It is difficult to predict when and how long these types of conditions may exist and how our markets, business and investments will be adversely affected. Accordingly, these conditions could have a material adverse effect on our consolidated financial condition or results of operations in future periods.

The businesses of our reinsurance and insurance subsidiaries are heavily regulated, and changes in regulation may limit their ability to pay dividends, reduce their profitability and limit their growth. Our reinsurance and insurance operating subsidiaries are subject to extensive regulation and supervision in the jurisdictions in which they conduct business, both in the U.S. and other countries. This regulation is generally designed to protect the interests of policyholders and not necessarily the interests of insurers, their stockholders or other investors. The regulation relates to authorization for lines of business, capital and surplus requirements, investment limitations, underwriting limitations, transactions with affiliates, dividend limitations, changes in control, premium rates and a variety of other financial and non-financial components of a reinsurance or insurance company's business. Moreover, insurance laws and regulations, among other things: establish solvency requirements, including minimum reserves and capital and surplus requirements; limit the amount of dividends, tax distributions, intercompany loans and other payments our insurance subsidiaries can make without prior regulatory approval; and impose restrictions on the amount and type of investments we may hold. Regulatory and legislative authorities continue to implement enhanced or new regulatory requirements that may impact our reinsurance and insurance businesses. The application of these laws could affect our liquidity and ability to pay dividends, interest and other payments on securities, among other things.

Virtually all states in which our insurance operating subsidiary companies conduct their business require them, together with other insurers licensed to do business in that state, to bear a portion of the loss suffered by some insureds as the result of impaired or insolvent insurance companies. In addition, in various states, our insurance operating subsidiary companies must participate in mandatory arrangements to provide various types of insurance coverage to individuals or other entities that otherwise are unable to purchase that coverage from private insurers. A few states require our insurance operating subsidiary companies to purchase reinsurance from a mandatory reinsurance fund. Such reinsurance funds can create a credit risk for insurers if not adequately funded by the state and, in some cases, the existence of a reinsurance fund could affect the prices charged for the policies issued by our reinsurance and insurance subsidiaries. The effect of these and similar arrangements could reduce the profitability of our insurance operating subsidiaries in any given period or limit their ability to grow their business.

In recent years, the state insurance regulatory framework has come under increased scrutiny, and some state legislatures have considered or enacted laws that may alter or increase state authority to regulate insurance companies and insurance holding companies. Further, the NAIC and state insurance regulators are continually reexamining existing laws and regulations, specifically focusing on modifications to statutory accounting principles, credit for reinsurance laws, interpretations of existing laws and the development of new laws and regulations. On the federal level, the Dodd-Frank Act, signed into law on July 21, 2010, mandated significant changes to the regulation of U.S. insurance effective as of July 21, 2011. These regulations, and any proposed or future state or federal legislation or NAIC initiatives, if adopted, may be more restrictive on the ability of our reinsurance and insurance subsidiaries to conduct business than current regulatory requirements or may result in higher costs. Information regarding the impact of regulation and current regulatory changes on our reinsurance and insurance operating subsidiaries can be found on pages 53 through 59 of this Form 10-K.

Our operations in jurisdictions outside the U.S. are subject to certain limitations and risks that are unique to foreign operations. Our international operations and assets held abroad are also subject to significant legal, market, operational, compliance and regulatory risks, including risks related to:

- economic, political and other developments in foreign countries;

- changes in foreign or U.S. laws and regulations;
- nationalization and changes in regulatory policy;
- unexpected financial restrictions that foreign governments may impose;
- the potential costs and difficulties in complying with a wide variety of foreign laws and regulations; and
- the consequences of international hostilities and unrest.

The risks of such occurrences and their overall effect upon us vary from country to country and cannot be predicted. In addition, our results of operations and net unrealized currency translation gain or loss (a component of accumulated other comprehensive income) are subject to volatility as the value of the foreign currencies fluctuate relative to the U.S. dollar. Further, regulations governing technical reserves and remittance balances in some countries may hinder remittance of profits and repatriation of assets.

In addition, TransRe's international operations are also regulated in various jurisdictions with respect to licensing requirements, solvency, currency, amount and type of security deposits, amount and type of reserves, amount and type of local investments and other matters. The international and U.S. laws and regulations that are applicable to TransRe's international operations are complex and may increase the costs of regulatory compliance, limit or restrict TransRe's business or subject TransRe to regulatory actions or proceedings in the future. Although TransRe attempts to comply with all applicable laws and regulations and seek licenses to undertake various activities where appropriate, there can be no assurance that TransRe is, or will be, in full compliance with all applicable laws and regulations, or interpretations of these laws and regulations, at all times. In addition, it is TransRe's policy to continually monitor compliance with, and voluntarily report to appropriate regulatory authorities any potential violations of, all applicable laws and regulations where it is deemed appropriate, including anti-corruption and trade sanction laws, and any failure to comply with any such laws and regulations may subject TransRe to investigations, sanctions or other remedies, including fines, injunctions, increased scrutiny or oversight by regulatory authorities. The cost of compliance or the consequences of non-compliance, including reputational damage, could have a material adverse effect on our consolidated financial condition or results of operations in future periods.

On January 16, 2016, following implementation of the Joint Comprehensive Plan of Action, or the "JCPOA," certain trade sanctions laws of the EU and the United Nations restricting dealings with Iran and Iranian entities were substantially eased, and the U.S. also provided relief for certain restrictions on individuals and entities outside of the U.S. On Implementation Day, the U.S. also authorized, under General License H, foreign companies owned or controlled by U.S. persons, such as TRL and TRESA, to engage in certain transactions involving Iran and Iranian entities. Pursuant to General License H and a specific license issued to TransRe, TRL and TRESA provided reinsurance coverage to non-Iranian cedants that had exposure to de minimis Iran-related risks that were permissible under General License H. On May 8, 2018, the U.S. announced it would cease participation in the JCPOA and reinstated the sanctions that were in effect prior to U.S. participation. Foreign companies owned or controlled by U.S. persons were given until November 5, 2018 to withdraw from any business dealings that were entered into under General License H and any additional authorizations, including general or specific licenses, granted by OFAC. Consequently, TRL and TRESA timely discontinued such coverage. As the failure to comply with trade sanctions prohibitions could subject TransRe to investigations, significant fines and other penalties, TransRe has implemented processes and procedures to comply with the reinstated trade sanctions laws of the U.S. Additionally, TransRe may be subject to penalties and fines in jurisdictions, such as the EU, that impose restrictions on compliance with unilateral extraterritorial trade sanctions by TransRe's non-U.S. subsidiaries, including those imposed against Iran and Cuba. The cost of compliance or the consequences of non-compliance with the trade sanctions laws of the U.S. and other jurisdictions, including reputational damage, could have a material adverse effect on our consolidated financial condition or results of operations.

Prior to January 13, 2017, the U.S. maintained comprehensive sanctions against Sudan. On January 13, 2017, OFAC issued a general license authorizing all transactions previously prohibited by the Sudan Sanctions Regulations, which sanctions were then revoked on October 12, 2017. As a result, beginning January 13, 2017, sanctions exclusions clauses, which TransRe utilizes in its reinsurance contracts to exclude coverage of prohibited risks, no longer excluded coverage of Sudanese risks by TransRe, and TransRe was obliged under the language of its reinsurance contracts to provide coverage and pay valid claims occurring on or after that date on any covered Sudanese risks legally permissible. Despite the lifting of U.S. sanctions, Sudan remained on the U.S. list of State Sponsors of Terrorism until December 14, 2020, when that designation was rescinded. TransRe has no direct business with Sudanese cedants or any contracts with Sudanese entities. A small number of Sudanese-related risks are underwritten by non-Sudanese cedants for which TransRe provides coverage under reinsurance treaties and which are not, as a result of the lifting of U.S. sanctions, excluded under the sanctions exclusions in such treaties. The revenue associated with such reinsurance covering this small number of Sudanese-related risks is immaterial to both TransRe and Alleghany.

With regards to TransRe's operations within the EU, TRC operates within the EU as a Third Country Reinsurer under Solvency II through a third country branch in France and on a cross-border basis. Currently, TransRe continues to conduct business within the EU through branches of TRC and TRESA with no significant impact on its operations. However, TransRe could be materially and adversely affected by rules adopted by a Member State related to Third Country Reinsurers. For example,

TRC may be required to post additional collateral in EU countries or may need to consider further restructuring its business in order to comply with the rules adopted in EU countries related to Third Country Reinsurers.

Solvency II, which was a fundamental revision to the European regulatory regime seeking to enhance transparency and risk management and encouraging a proactive approach to company solvency, came into effect on January 1, 2016. It is built on a risk-based approach to setting capital requirements for reinsurers and insurers. Solvency II may affect the way in which TransRe's international group, including TRESA and TRC's branches in the EU operate and may have a negative impact on our results. Solvency II may reduce TRESA's and/or TRC's EU branches' regulatory solvency position, for example, by increased capital requirements or a reduction in eligible funds. Solvency II could also materially impact the group, since Solvency II affects the calculation of the solvency of international groups which, like TransRe, conduct reinsurance and insurance operations both inside and outside of the EU. The changes also require an accelerated quarterly close process across the group to allow TRESA, TRL and TRC's European branches to meet the regulatory disclosure timetable under Solvency II. Although Solvency II is now in force, uncertainty remains as to how the Solvency II regime will be enforced or amended and the effectiveness of the coordination and cooperation of information sharing among supervisory bodies and regulators or the effect, if any, these developments may have on TransRe's operations and financial condition. EIOPA and the European Commission are undertaking a review of Solvency II which is anticipated to be completed in the third quarter of 2021. TransRe could be materially impacted by any review of Solvency II which may reduce TRESA's regulatory solvency position by, for example, increased capital requirements or a reduction in eligible funds. Any changes could also materially impact TransRe, given that Solvency II affects the calculation of the solvency of international groups which, like TransRe, conduct reinsurance and insurance operations both inside and outside of the EU. Other risks include more complex and intensive regulatory reporting burdens, regulatory requirements that conflict with requirements in other jurisdictions, and shortages of skilled staff in critical areas such as the actuarial function, all of which may have a negative impact on the results of TRESA, the branches of TRC and the TransRe group. In addition, we could be required to undertake a significant amount of additional work for compliance with the Solvency II regime, which in turn may divert finite resources from other business related tasks.

Uncertainty as to how the Solvency II regime will be enforced or amended and the effectiveness of the coordination and cooperation of information sharing among supervisory bodies and regulators has increased as a result of the Brexit referendum which led to the U.K. leaving the EU on January 31, 2020. Following Brexit, the U.K. is free to determine its own regulatory regime. The U.K. is undertaking a review of Solvency II and of the regulatory regime applicable to U.K. authorized insurers and reinsurers. We cannot currently predict whether material changes will be made to the U.K.'s regulatory regime and whether the regulatory regime will be deemed equivalent to Solvency II or the impact on TRL, TRESA and TRC if the future U.K. regulatory regime is not found to be equivalent to Solvency II.

Brexit could have an adverse effect on our business, financial condition and results of operations. Brexit means that insurance and reinsurance carriers operating in the U.K. are experiencing a period of regulatory uncertainty as the U.K. and the EU undertake the challenge of redefining the U.K.'s economic and political relationships with the EU. The U.K. and the EU negotiated and agreed to a withdrawal agreement which included the application of transitional provisions under which EU law would broadly remain in force in the U.K. (and the U.K. continued to contribute to the EU's budget) until the end of December 2020. This withdrawal agreement was enshrined in U.K. law after it received royal assent on January 23, 2020 and the U.K. officially left the EU on January 31, 2020. On December 24, 2020, the EU and the U.K. finalized their negotiations in respect of a "Trade and Cooperation Agreement", which will govern their future relationship following Brexit. However, the uncertainty surrounding the effect of Brexit, including the implementation and enforcement terms and conditions of the Trade and Cooperation Agreement, the uncertainty in relation to the legal and regulatory framework that would apply to the U.K. and its relationship with the remaining members of the EU (including in relation to trade and services) after Brexit is effected, is likely to cause increased economic volatility and market uncertainty globally, in particular volatility of currency exchange rates, interest rates and credit spreads. It has already led, and may continue to lead, to disruptions for the European and global financial markets, such as the decrease in the value of the British Pound and of market values of listed U.K. companies, in particular from the financial services and insurance sector, and the downgrade of the credit ratings for the U.K. by S&P, Moody's and Fitch (each with a negative outlook).

The long-term effect of Brexit on the value of our investment portfolio at this time is uncertain and such volatility and uncertainty will likely continue even after the conclusion of negotiations pertaining to the Trade and Cooperation Agreement.

Brexit could lead to potentially divergent national laws and regulations as the U.K. determines which EU laws to replace or replicate. We may have to review our underwriting platforms and incur additional regulatory and transactional costs as a result. In particular, TRL has lost its EEA financial services passport which enabled it to operate across borders within the single EU market without obtaining any required local regulatory approval where insurers and cedants are located. In addition, the U.K.'s regulatory regime in terms of prudential regulation and governance could also diverge. The U.K. has already declared the EU's Solvency II regime to be equivalent to its own. However, the EU may not make the same determination. Further, even if equivalence is confirmed by the EU, either side may withdraw their respective declarations in the future. The U.K. will also lose access to the global trade deals negotiated by the EU on behalf of its Member States, although many of those global trade deals have been replicated by the U.K. Any consequential decline in trade could affect the attractiveness of the U.K. as a global

investment center and, as a result, could have a detrimental impact on U.K. growth. We could be adversely affected by reduced growth and greater volatility in the U.K. economy.

In Argentina, Brazil, Ecuador, India and the People's Republic of China, emerging markets where TransRe underwrites business on a cross-border basis, local regulations have recently been adopted that may operate to limit, restrict or increase the costs of TransRe's access to these markets. If this trend continues to spread to other jurisdictions, TransRe's ability to operate globally may be materially and adversely affected.

The loss of key personnel at our operating subsidiaries could adversely affect our results of operations, financial condition and cash flows. We rely upon the knowledge and talent of the employees of our operating subsidiaries to successfully conduct their business. Changes in local employment legislation, taxation and the approach of regulatory bodies to compensation practice within our operating jurisdictions may impact our ability to recruit and retain senior employees or the cost to us of doing so. A loss of key personnel could have a material adverse effect on our results of operations, financial condition and cash flows in future periods. Our success has depended, and will continue to depend in substantial part, upon our ability to attract and retain key personnel at our operating subsidiaries. The loss of key services of any key personnel at our operating subsidiaries may adversely affect our business and results of operations.

Errors and misconduct by our employees, agents, intermediaries or representatives may be difficult to detect and prevent and could expose us to significant legal liability and reputational harm. Our employees and the employees of our subsidiaries could engage in misconduct that adversely affects our business. It is not always possible to detect or prevent employee error or misconduct, and the controls and procedures that we have in place to prevent and detect this activity may not be effective in all cases. Losses may result from, among other things, illegal acts, unethical behavior, fraud, errors, failure to document transactions properly, failure to obtain proper internal authorization, failure to comply with underwriting or other internal guidelines by our reinsurance and insurance subsidiaries or failure to comply with regulatory requirements or our internal policies. We could be subject to litigation, regulatory sanctions and serious harm to our reputation or financial position if employees were to engage or be accused of engaging in illegal or suspicious activities or failing to comply with internal guidelines and protocols. Misconduct by employees, or even unsubstantiated allegations, could result in a material adverse effect on our reputation, financial condition and results of operations.

We are subject to the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar worldwide anti-bribery laws, which impose restrictions and may carry substantial penalties. Violations of these laws or allegations of such violations could adversely affect results of operations or financial condition. The U.S. Foreign Corrupt Practices Act and anti-bribery laws in other jurisdictions, including the U.K. Bribery Act that took effect in 2011, generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business or other commercial advantage. Our policies and controls are designed to ensure compliance with these anti-bribery laws and regulations, which often carry substantial penalties. We cannot assure you that our internal control policies and procedures always will protect us from reckless or other inappropriate acts committed by our affiliates, employees, agents or other third parties with whom we do business. In such event, we could be exposed to civil penalties, criminal penalties and other sanctions, including fines or other punitive actions. In addition, such violations could damage our business and/or our reputation. Such criminal or civil sanctions, penalties, other sanctions and damage to our business or reputation could have a material adverse effect on our business, financial position and results of operations.

We are subject to risks related to our use of information technology. We rely on information technology in virtually all aspects of our business. Our reinsurance and insurance subsidiaries in particular depend on the proper functioning and availability of their information technology platforms, including communications and data processing systems, in operating their businesses and their access to and the integrity of the information stored on and processed by these platforms is a related risk. These systems consist of software programs that are integral to the efficient operation of the businesses of our reinsurance and insurance subsidiaries, including programs for proprietary pricing and exposure management, processing payments and claims, filing and making changes to records and providing customer support. Our reinsurance and insurance subsidiaries are also required to effect electronic transmissions with third parties including brokers, clients, vendors and others with whom they do business.

A significant disruption or failure of our information technology systems may have a significant impact on our operations, potentially resulting in service interruptions, security violations, regulatory compliance failures and other operational difficulties. In addition, any attack perpetrated against our information systems including through a system failure, security breach or disruption by malware or other damage, could similarly impact our operations and result in loss or misuse of information, litigation and potential liability. Although we have taken steps intended to mitigate the risks presented by potential cyber incidents, it is not possible to protect against every potential power loss, telecommunications failure, cybersecurity attack or similar event that may arise. Moreover, the safeguards we use are subject to human implementation and maintenance and to other uncertainties. Any of these cyber incidents may result in a violation of applicable laws or regulations (including privacy and other laws), damage our reputation, cause a loss of customers and give rise to monetary fines and other penalties, which could be significant. Such events could have an adverse effect on our results of operations, financial condition and liquidity.

A natural or man-made disaster could cause significant business interruptions for certain of our subsidiaries that may adversely affect their results of operations, financial condition and cash flows. The operations of certain of our subsidiaries, and those of their suppliers and customers, may potentially suffer significant business interruptions due to the effects of natural disasters (such as earthquakes, tsunamis, severe storms or hurricanes, typhoons, floods, outbreaks of pandemic or contagious diseases, including the Pandemic) or man-made disasters (such as fires, explosions, acts of terrorism or war, security breaches, cyber attacks, and power and telecommunications failures). Such business interruptions could cause those subsidiaries and their businesses to suffer serious harm to their operations, financial condition and cash flows. While we regularly assess and take steps to improve our existing business continuation and crisis management plans, there can be no assurance that these plans or the insurance coverages we maintain would be effective in mitigating any negative effects on our operations in the event of a disaster or resulting business interruption, nor can we provide assurance that the business continuation and crisis management plans of the independent suppliers and customers on whom our subsidiaries rely for certain services and products would be effective in mitigating any negative effects on the provision of such services and products in the event of a disaster.

The costs of complying with, or our failure to comply with, U.S. and foreign laws related to privacy, data security and data protection, such as the EU General Data Protection Regulation, could adversely affect our results of operations or financial condition and our reputation. The regulatory environment surrounding information security and privacy is increasingly demanding. 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 or employees, including 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. The NYDFS Cybersecurity Regulation has increased our compliance costs, and the consequences of noncompliance could include regulatory enforcement actions and penalties, as well as reputation risk.

The NAIC adopted an Insurance Data Security Model Law, which would require licensed insurance entities to comply with detailed information security requirements. The NAIC model law is similar in many respects to the NYDFS Cybersecurity Regulation. To date, the Insurance Data Security Model Law has been adopted by several states, including some of the states where our reinsurance and insurance subsidiaries are domiciled. If the model law continues to be enacted in additional states, such enacted laws could be inconsistent between states or with existing laws and regulations, which 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. Any such events could potentially have an adverse impact on our business, financial condition or results of operations.

We are also subject to California law, including the CCPA, which went into effect on January 1, 2020. The CCPA established a privacy framework for covered businesses which collect and process the personal information of California consumers. It includes a broad definition of personal information, affords California residents certain individual rights of access and deletion regarding their personal data, and limits the “sale” of such information, which is also broadly construed to include making personal information available to third parties for valuable consideration. The CCPA established potentially severe statutory damages for businesses that fail to implement reasonable security measures to protect against breaches of personal information, and includes a broad private right of action available to affected consumers. The CCPA excludes data subject to the GLBA; however, this is not an entity-wide exception. The breach of California consumers’ personal data, to the extent it involves data not covered by GLBA, represents a significant risk of liability.

Moreover, the legal landscape relating to data privacy and data protection is quickly evolving, which may increase operational and compliance costs associated with new or amended laws and regulations. For instance, since the CCPA was enacted in 2018, the California Attorney General has issued several draft implementing regulations, including following the CCPA coming into force in 2020. In November 2020, the California Privacy Rights Act, or the CPRA, was approved by California voters to amend the CCPA and to establish a new data protection authority, the California Privacy Protection Agency, authorized to promulgate new data protection regulations. Adapting our business and practices to the CCPA, as amended by the CPRA, and any forthcoming regulations, may be burdensome and could involve substantial additional or diverted resources.

More broadly, the General Data Protection Regulation, or the “GDPR,” which regulates data protection for all individuals within the EU, including foreign companies processing data of EU residents, became effective on May 25, 2018 and applies to all of our subsidiaries operating in the EU. The U.K. has also implemented the GDPR, or the “U.K. GDPR. The GDPR and the U.K. GDPR set out a number of requirements that must be complied with when handling the personal data of such EU and U.K. based data subjects respectively including: the obligation to appoint data protection officers in certain circumstances; new rights for individuals to be “forgotten” and rights to data portability; the principal of accountability and the obligation to make public notification of significant data breaches. The GDPR and the U.K. GDPR include restrictions on transfers outside the U.K. and the European Economic Area, or the “EEA,” (including Switzerland) and the requirement to include specific data protection provisions in agreements with data processors. The GDPR and the U.K. GDPR enhance individuals’ rights, introduces complex and far-reaching company obligations and increases penalties significantly in case of violation. The interpretation and application

of data protection laws in the U.S., Europe and elsewhere are developing and are often uncertain and in flux. The introduction of the U.K. GDPR and the GDPR, and any resultant changes in U.K. or EU member states' national laws and regulations, may increase our compliance obligations and costs and may necessitate the review and implementation of policies and processes relating to our collection and use of data. It is possible that these laws or cybersecurity regulations may be interpreted and applied in a manner that is inconsistent with our data protection or security practices.

If any person, including any of our employees, our subsidiaries' employees or those with whom we share such information, negligently disregards or intentionally breaches our established controls with respect to our client or employee data, or otherwise mismanages or misappropriates that data, we could be subject to significant monetary damages, regulatory enforcement actions, fines and/or criminal prosecution in one or more jurisdictions. For example, the GDPR and the U.K. GDPR include sanctions for non-compliance, which could result in a penalty of up to the higher of (a) €20 million; and (b) 4 percent of a company's global annual revenue for the preceding financial year for certain infringements, such as unlawful data transfer outside of the EEA or the U.K. In addition, a data breach could result in negative publicity which could damage our reputation and have a material adverse effect on our financial condition and results of operations.

The impact of changes in current accounting practices and future pronouncements could have a material adverse effect on our financial condition, results of operations and cash flows. Our financial statements are prepared in accordance with GAAP, which is periodically revised by the FASB, and they are subject to the accounting-related rules and interpretations of the SEC. We are required to adopt new and revised accounting standards implemented by the FASB. Unanticipated developments in accounting practices may require us to incur considerable additional time and expenses to comply with such developments, particularly if we are required to prepare information relating to prior periods for comparative purposes or to apply the new requirements retroactively. Changes in accounting principles, practices and standards, particularly those that apply to insurance or reinsurance businesses, also may affect our calculation of net earnings, shareholders' equity and other financial statement line items. For a description of changes in accounting standards that are currently pending and, if known, our estimates of their expected impact, see Note 1(r) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K.

Risk Factors Related to our Investments and Assets

The valuation of our investments includes methodologies, estimates and assumptions which are subject to differing interpretations or judgments; a change in interpretations or judgments could result in changes to investment valuations that may adversely affect our results of operations or financial condition. The vast majority of our investments are measured at fair value using methodologies, estimates and assumptions which are subject to differing interpretations or judgments. Financial instruments with quoted prices in active markets generally have more price observability and less judgment is used in measuring fair value. Conversely, financial instruments traded in other-than-active markets or that do not have quoted prices have less observability and are measured at fair value using valuation models or other pricing techniques that require more judgment. Investments recorded at fair value in the consolidated balance sheet are classified in a hierarchy for disclosure purposes consisting of three "levels" based on the observability of inputs available in the market used to measure the fair values.

Securities that are less liquid are more difficult to value and trade. During periods of market disruption, including periods of significantly rising or high interest rates, rapidly widening credit spreads or illiquidity, it may be difficult to value certain of the securities in our investment portfolio if trading becomes less frequent or market data becomes less observable. Certain asset classes in active markets with significant observable data may become illiquid due to changes in the financial environment. In such cases, valuing these securities may require more subjectivity and judgment. In addition, prices provided by third-party pricing services and broker quotes can vary widely even for the same security.

As such, valuations may include inputs and assumptions that are less observable or require greater estimation as well as valuation methods which are more sophisticated, thereby resulting in values which may be greater or less than the value at which the investments may be ultimately sold. Further, rapidly changing or strained credit and equity market conditions could materially impact the value of securities as reported within our consolidated financial statements and the period-to-period changes in value could vary significantly. Decreases in value may have a material adverse effect on our results of operations or financial condition.

Our investments in debt and equity securities are subject to market fluctuations. As of December 31, 2020, our investments in debt securities were approximately \$15.6 billion, or approximately 77 percent of our total investment portfolio, and our investments in equity securities had a fair value of approximately \$2.7 billion, which represented approximately 13 percent of our investment portfolio. The fair value of these assets and the investment income from these assets fluctuate depending on general economic and market conditions.

With respect to our investments in debt securities, a rise in interest rates would decrease unrealized gains and/or increase unrealized losses on our debt securities portfolio and potentially produce a net unrealized loss position, offset by our ability to earn higher rates of return on reinvested funds. Conversely, a decline in interest rates would increase unrealized gains and/or decrease unrealized losses on our debt securities portfolio, offset by lower rates of return on reinvested funds. Based upon the composition and duration of our investment portfolio as of December 31, 2020, a 100 basis point increase in interest rates would

result in an approximate \$679 million decrease in the fair value of our debt securities portfolio. In addition, some debt securities, such as mortgage-backed and other asset-backed securities, carry prepayment risk, the risk that principal will be returned more rapidly or slowly than expected, as a result of interest rate fluctuations.

With respect to our investments in equity securities, we consider all of our equity securities to be measured at fair value with changes in fair value recognized in net earnings. A significant reduction in the value of our investment portfolio could have a material adverse effect on our business, results of operations and financial condition.

Defaults, downgrades or other events impairing the value of our debt securities portfolio may reduce our earnings. We are subject to the risk that the issuers of debt securities we own may default on principal and interest payments they owe us. The occurrence of a major economic downturn, acts of corporate malfeasance, widening risk spreads or other events that adversely affect the issuers of these debt securities could cause the value of our debt securities portfolio and our net earnings to decline and the default rate of the debt securities in our investment portfolio to increase. In addition, with economic uncertainty, the credit quality of issuers could be adversely affected and a ratings downgrade of the issuers of the debt securities we own could also cause the value of our debt securities portfolio and our net earnings to decrease. Any event reducing the value of these securities other than on a temporary basis could have a material adverse effect on our business, results of operations and financial condition. We continually monitor the difference between cost and the estimated fair value of our investments in debt securities. If a decline in the value of a particular debt security is deemed to be temporary, we record the decline as an unrealized loss in stockholders' equity. Credit losses for available for sale securities are recorded through an allowance for credit losses. Changes in the allowance for credit losses are recorded for (or as a reversal of) credit losses on available for sale securities, which may be material to our operating results.

Changes in foreign currency exchange rates could impact the value of our assets and liabilities denominated in foreign currencies. A principal exposure to foreign currency risk is our obligation to settle claims denominated in foreign currencies in the subject foreign currencies. The possibility exists that we may incur foreign currency exchange gains or losses when we ultimately settle these claims. To mitigate this risk, we maintain investments denominated in certain foreign currencies in which the claims payments will be made. To the extent we do not seek to hedge our foreign currency risk or our hedges prove ineffective, the resulting impact of a movement in foreign currency exchange rates could materially and adversely affect our results of operations or financial condition.

If any of our businesses do not perform well, we may be required to recognize an impairment of our assets, including goodwill or other intangible assets or to establish a valuation allowance against the deferred income tax asset, which could adversely affect our results of operations or financial condition. Goodwill represents the excess of the amount we paid to acquire subsidiaries and other businesses over the fair value of their net assets as of the date of acquisition. We test goodwill at least annually for impairment. Impairment testing is performed based upon estimates of the fair value of the operating subsidiary to which the goodwill relates. The fair value of the operating subsidiary is impacted by the performance of the business. The performance of our businesses may be adversely impacted by prolonged market declines. If we determine the goodwill has been impaired, we must write down the goodwill by the amount of the impairment, with a corresponding charge to net earnings. Such write-downs could have a material adverse effect on our results of operations or financial position. A decrease in the expected future earnings of an operating subsidiary could lead to an impairment of some or all of the goodwill or other long-lived intangible assets associated with such operating subsidiaries in future periods.

Deferred income tax represents the tax effect of the differences between the book and tax basis of assets and liabilities. Deferred tax assets are assessed periodically by management to determine if they are recoverable. Factors in management's determination include the performance of the business including the ability to generate capital gains. If it is more likely than not that the deferred income tax asset will not be realized based on available information then a valuation allowance must be established with a corresponding charge to net earnings. Net earnings charges and reduced value of our net deferred tax assets could have a material adverse effect on our results of operations or financial position.

Deterioration of financial market conditions could result in the impairment of long-lived intangible assets and the establishment of a valuation allowance on our deferred income tax assets.

Risks Related to our Senior Notes and the Credit Agreement

Our failure to comply with restrictive covenants contained in the indentures governing the Senior Notes (as defined on page 119 of this Form 10-K) or any other indebtedness, including indebtedness under our revolving credit facility and any future indebtedness, could trigger prepayment obligations, which could adversely affect our business, financial condition and results of operations. The indentures governing the Senior Notes contain covenants that impose restrictions on Alleghany and TransRe with respect to, among other things, the incurrence of liens on the capital stock of certain of our subsidiaries. In addition, the indentures governing the Senior Notes contain certain other covenants, including covenants to timely pay principal and interest, and the Credit Agreement (as defined on page 117 of this Form 10-K) also requires us to comply with certain covenants. Our failure to comply with such covenants could result in an event of default under the indentures, under the Credit Agreement or under any other debt agreement we may enter into in the future, which could, if not cured or waived, result

in us being required to repay the Senior Notes, the indebtedness under the Credit Agreement or any other future indebtedness. As a result, our business, financial condition, results of operations and liquidity could be adversely affected.

To service our debt, we will require a significant amount of cash, which may not be available to us. Our ability to make payments on, or repay or refinance, our debt, including the Senior Notes, will depend largely upon the future performance and use of our investment portfolio and our future operating performance, including the operating performance of our subsidiaries. Our future performance, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. In addition, our ability to borrow funds in the future will depend on the satisfaction of the covenants in the indentures governing the Senior Notes, in the Credit Agreement and in other debt agreements we may enter into in the future. Under the Credit Agreement, we also need to maintain certain financial ratios. We cannot assure you that our business, including the operating performance of our subsidiaries, will generate sufficient cash flow from operations or that future borrowings will be available to us under the Credit Agreement or from other sources in an amount sufficient to enable us to pay our debt, including the Senior Notes, or to fund our other liquidity needs.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

The principal executive offices of Alleghany, Alleghany Capital and Roundwood are located in leased office space in New York, New York. TransRe leases office space in New York, New York for its headquarters and office space for its locations around the world. RSUI leases office space in Atlanta, Georgia for its headquarters and office space in Sherman Oaks, California. CapSpecialty leases office space in Middleton, Wisconsin for its headquarters and office space in New York, New York, Hartford, Connecticut and other locations throughout the U.S. PCT owns its principal offices and manufacturing facilities, which are located in Rockford, Illinois and leases certain offices and manufacturing facilities, which are located in Olympia, Washington, Saco, Maine and Berlin, Connecticut. Kentucky Trailer leases its principal offices and manufacturing facilities, which are located in Louisville, Kentucky, and has additional leased manufacturing facilities in locations throughout the U.S. and in the Netherlands. IPS leases office space in Blue Bell, Pennsylvania for its headquarters and office space in its locations around the world. Jazwares owns and leases office space in Sunrise, Florida for its headquarters and other locations around the world. W&W/AFCO Steel owns its principal office in Oklahoma City, Oklahoma for its headquarters and owns its principal facilities, which are located throughout the U.S. Concord leases office space in Raleigh, North Carolina for its headquarters. Wilbert leases office space in Overland Park, Kansas for its headquarters and owns and leases facilities at locations around the U.S. Alleghany Properties leases office space in Sacramento, California. Management considers its facilities suitable and adequate for the current level of operations. See Note 12(b) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for additional information on our leases.

Item 3. Legal Proceedings.

Certain of our subsidiaries are parties to pending litigation and claims in connection with the ordinary course of their businesses. Each such subsidiary makes provisions for estimated losses to be incurred in such litigation and claims, including legal costs. We believe such provisions are adequate and do not believe that any pending litigation will have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

Market Information, Holders and Dividends

Our common stock trades under the symbol “Y” on the New York Stock Exchange.

As of February 8, 2021, there were approximately 483 holders of record of our common stock. This figure does not represent the actual number of beneficial owners of our common stock because such stock is frequently held in “street name” by securities dealers and others for the benefit of individual owners who may vote the shares.

In February 2018, our Board of Directors declared a special dividend of \$10.00 per share for stockholders of record on March 5, 2018. On March 15, 2018, we paid dividends to stockholders totaling \$154.0 million. In February 2020, the Allegheny Board of Directors declared a special dividend of \$15.00 per share for stockholders of record on March 5, 2020. On March 16, 2020, we paid dividends to stockholders totaling \$215.0 million. Any future determination to pay dividends to holders of our common stock will be at the discretion of our Board of Directors and will be dependent upon many factors, including our earnings, financial condition, business needs and growth objectives, capital and surplus requirements of our reinsurance and insurance subsidiaries, regulatory restrictions, rating agency considerations and other factors.

Repurchases of Equity Securities

The following table presents our common stock repurchases in the quarter ended December 31, 2020:

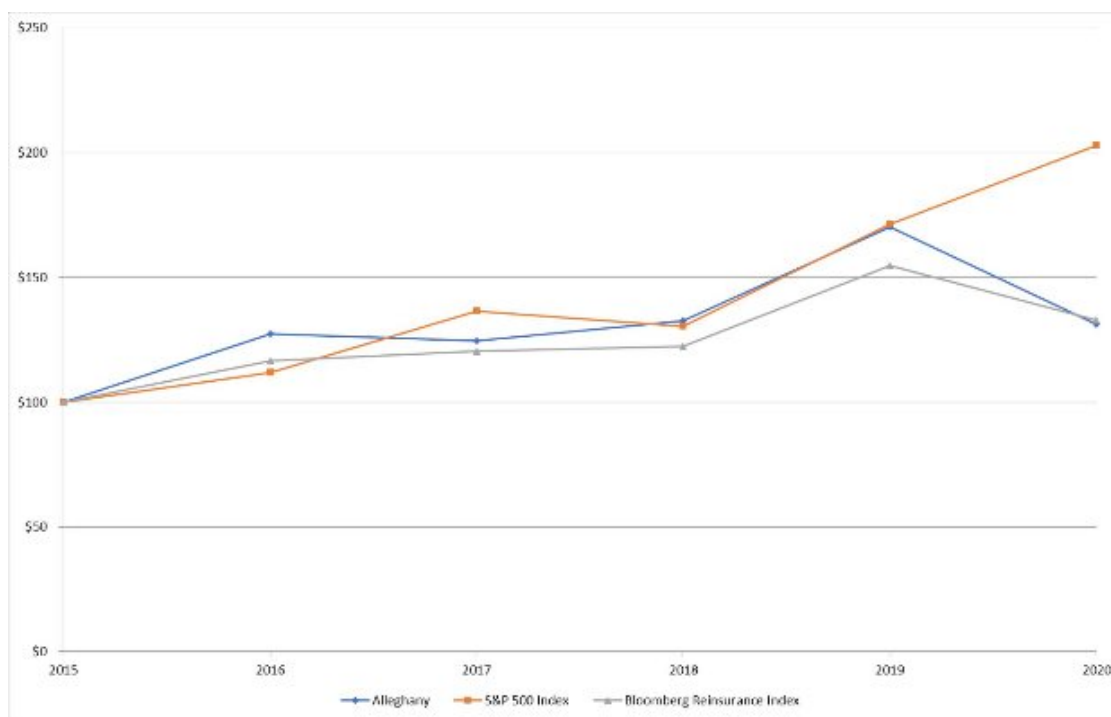
	Total Number of Shares Repurchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾	Approximate Dollar Value of Shares That May Yet be Purchased Under the Plans or Programs ⁽¹⁾ (in millions)
October 1 to October 31	60,970	\$ 552.75	60,970	\$ 479.2
November 1 to November 30	32,477	594.52	32,477	459.9
December 1 to December 31	45,992	597.82	45,992	432.4
Total	139,439	577.34	139,439	

- (1) In June 2018, our Board of Directors authorized the repurchase of shares of our common stock, at such times and at prices as management determines to be advisable, up to an aggregate of \$400.0 million. In September 2019, our Board of Directors authorized, upon the completion of the previously announced program, the repurchase of additional shares of our common stock at such times and at prices as management determines to be advisable, up to an aggregate of \$500.0 million.

Performance Graph

The following information is not deemed to be “soliciting material” or to be “filed” with the SEC or subject to the liabilities of Section 18 of the Exchange Act, and the information shall not be deemed to be incorporated by reference in any filing by us under the Securities Act of 1933 or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

The following graph presents (i) the cumulative total stockholder return on our common stock; (ii) the cumulative total return on the Standard & Poor’s 500 Stock Index, or the “S&P 500 Index;” and (iii) the cumulative total return on the BI Global P&C Reinsurance Competitive Peer Group Index, or the “Bloomberg Reinsurance Index,” for the five year period beginning on December 31, 2015 through December 31, 2020. The graph assumes that the value of the investment was \$100.00 on December 31, 2015.



	Base Period	INDEXED RETURNS				
		Year Ending				
	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Alleghany	\$ 100.00	\$ 127.24	\$ 124.72	\$ 132.62	\$ 170.12	\$ 131.10
S&P 500 Index	\$ 100.00	\$ 111.95	\$ 136.38	\$ 130.39	\$ 171.44	\$ 202.96
Bloomberg Reinsurance Index	\$ 100.00	\$ 116.53	\$ 120.53	\$ 122.35	\$ 154.74	\$ 132.97

The graph and table above are based on the assumption that cash dividends are reinvested on the ex-dividend date in respect of such dividend.

Item 6. Selected Financial Data.

Alleghany Corporation and Subsidiaries⁽¹⁾

	Year Ended December 31,				
	2020	2019	2018	2017	2016
	(\$ in millions, except per share and share amounts)				
Operating Data					
Revenue	\$ 8,896.8	\$ 9,040.6	\$ 6,887.2	\$ 6,424.6	\$ 6,131.1
Net earnings(2)	\$ 101.8	\$ 857.8	\$ 39.5	\$ 90.1	\$ 456.9
Basic earnings per share of common stock(2)	\$ 7.14	\$ 59.44	\$ 2.62	\$ 5.85	\$ 29.60
Average number of shares of common stock	14,257,793	14,431,892	15,062,567	15,410,034	15,436,286
	As of December 31,				
	2020	2019	2018	2017	2016
	(\$ in millions, except per share amounts)				
Balance Sheet					
Total assets	\$ 28,927.0	\$ 26,931.6	\$ 25,344.9	\$ 25,384.3	\$ 23,756.6
Senior Notes and other debt	\$ 2,135.9	\$ 1,751.1	\$ 1,669.0	\$ 1,484.9	\$ 1,476.5
Common stockholders' equity(2)	\$ 8,755.7	\$ 8,776.7	\$ 7,692.7	\$ 8,514.1	\$ 7,939.9
Common stockholders' equity per share of common stock(2)	\$ 623.57	\$ 611.00	\$ 527.75	\$ 553.20	\$ 515.24

(1) See Note 1(a) and Note 2 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for information on changes in subsidiaries for the five year period ended December 31, 2020.

(2) Attributable to Alleghany stockholders.

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

The following is a discussion and analysis of our financial condition and results of operations for the twelve months ended December 31, 2020, 2019 and 2018. This discussion and analysis should be read in conjunction with our audited consolidated financial statements and Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties and that are not historical facts, including statements about our beliefs and expectations. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed below and particularly under the headings "Risk Factors," "Business" and "Note on Forward-Looking Statements" contained in Item 1A, Item 1, and Part I of this Form 10-K, respectively.

Comment on Non-GAAP Financial Measures

Throughout this Form 10-K, our analysis of our financial condition and results of operations is based on our consolidated financial statements which have been prepared in accordance with GAAP. Our results of operations have been presented in the way that we believe will be the most meaningful and useful to investors, analysts, rating agencies and others who use financial information in evaluating our performance. This presentation includes the use of underwriting profit and adjusted earnings before income taxes, which are "non-GAAP financial measures," as such term is defined in Item 10(e) of Regulation S-K promulgated by the SEC. The presentation of these financial measures is not intended to be considered in isolation or as a substitute for, or superior to, financial information prepared and presented in accordance with GAAP. These measures may also be different from non-GAAP financial measures used by other companies, limiting their usefulness for comparison purposes. A discussion of our calculation and use of these financial measures is provided below.

Underwriting profit is a non-GAAP financial measure for our reinsurance and insurance segments. Underwriting profit represents net premiums earned less net loss and LAE and commissions, brokerage and other underwriting expenses, all as determined in accordance with GAAP and does not include: (i) net investment income; (ii) change in the fair value of equity securities; (iii) net realized capital gains; (iv) change in allowance for credit losses on available for sale securities; (v) noninsurance revenue; (vi) other operating expenses; (vii) corporate administration; (viii) amortization of intangible assets; and (ix) interest expense. We use underwriting profit as a supplement to earnings before income taxes, the most comparable GAAP financial measure, to evaluate the performance of our reinsurance and insurance segments and believe that underwriting profit provides useful additional information to investors because it highlights net earnings attributable to our reinsurance and insurance segments' underwriting performance. Earnings before income taxes may show a profit despite an underlying underwriting loss, and when underwriting losses persist over extended periods, a reinsurance or an insurance company's ability to continue as an ongoing concern may be at risk. A reconciliation of underwriting profit to earnings before income taxes is presented within "Consolidated Results of Operations."

Adjusted earnings before income taxes is a non-GAAP financial measure for our Alleghany Capital segment. Adjusted earnings before income taxes represents noninsurance revenue and net investment income less other operating expenses and interest expense, and does not include: (i) amortization of intangible assets; (ii) change in the fair value of equity securities; (iii) net realized capital gains; (iv) change in allowance for credit losses on available for sale securities; and (v) income taxes. Because adjusted earnings before income taxes excludes amortization of intangible assets, change in the fair value of equity securities, net realized capital gains, change in allowance for credit losses on available for sale securities and income taxes, it provides an indication of economic performance that is not affected by levels of effective tax rates or levels of amortization resulting from acquisition accounting. We use adjusted earnings before income taxes as a supplement to earnings before income taxes, the most comparable GAAP financial measure, to evaluate the performance of certain of our noninsurance operating subsidiaries and investments. A reconciliation of adjusted earnings before income taxes to earnings before income taxes is presented within "Consolidated Results of Operations."

Overview

The following overview does not address all of the matters covered in the other sections of Management's Discussion and Analysis of Financial Condition and Results of Operations or contain all of the information that may be important to our stockholders or the investing public. This overview should be read in conjunction with the other sections of Management's Discussion and Analysis of Financial Condition and Results of Operations.

- Net earnings attributable to Alleghany stockholders were \$101.8 million in 2020, compared with \$857.8 million in 2019 and \$39.5 million in 2018.
- Net investment income decreased by 10.8 percent in 2020 from 2019, and increased by 9.9 percent in 2019 from 2018.
- Net premiums written increased by 10.3 percent in 2020 from 2019, and increased 13.9 percent in 2019 from 2018.
- Underwriting loss was \$128.7 million in 2020, compared with underwriting profit of \$33.0 million in 2019 and underwriting loss of \$161.5 million in 2018.
- The combined ratio for our reinsurance and insurance segments was 102.1 percent in 2020, compared with 99.4 percent in 2019 and 103.2 percent in 2018.
- Catastrophe losses, net of reinsurance and including losses from the Pandemic, were \$801.5 million in 2020, compared with \$399.7 million in 2019 and \$657.7 million in 2018.
- Net favorable prior accident year loss reserve development was \$220.8 million in 2020, compared with \$184.7 million in 2019 and \$329.0 million in 2018.
- Noninsurance revenue for Alleghany Capital was \$2,477.5 million in 2020, compared with \$2,289.3 million in 2019 and \$1,574.6 million in 2018.
- Earnings before income taxes for Alleghany Capital were \$146.0 million in 2020, compared with \$111.1 million in 2019 and \$59.8 million in 2018. Adjusted earnings before income taxes were \$153.9 million in 2020, compared with \$142.6 million in 2019 and \$83.3 million in 2018.

As of December 31, 2020, we had total assets of \$28.9 billion and total stockholders' equity attributable to Alleghany stockholders of \$8.8 billion. As of December 31, 2020, we had consolidated total investments of approximately \$20.2 billion, consisting of \$15.6 billion invested in debt securities, \$2.7 billion invested in equity securities, \$0.7 billion invested in commercial mortgage loans, \$0.7 billion invested in short-term investments and \$0.5 billion invested in other invested assets.

The ongoing Pandemic has significantly disrupted many aspects of society as well as financial markets, and has caused widespread global economic dislocation. At the parent and subsidiary levels, we have implemented a variety of business continuation and crisis management policies and procedures to reduce the risk of infection to our employees and others.

Among other impacts on the economy, the Pandemic has adversely impacted financial markets, which in turn impacted our investment portfolio. These impacts are more fully described below, as well as a recovery in the financial markets in the latter half of 2020.

We also incurred \$801.5 million of catastrophe losses in 2020 of which \$415.2 million arose from the Pandemic. The vast majority of the Pandemic losses were incurred at TransRe, and include those from event cancellation coverage for conferences and sporting events as well as other property coverages and, to a lesser extent, the accident and health and trade credit lines of business. Pandemic losses at RSUI primarily relate to business interruption claims and related estimated legal expenses. CapSpecialty also incurred a modest amount of Pandemic losses. Our Pandemic loss estimates were based on information currently available to us, including an analysis of reported claims, an underwriting review of in-force contracts and other factors requiring considerable judgment. Our loss estimates for Pandemic losses do not reflect judicial, legislative and regulatory risk that could expand coverage beyond the terms of our treaty and policy language, although they do reflect provisions for related legal expenses.

TransRe's Pandemic catastrophe losses were \$391.8 million in 2020, which include \$154.1 million of losses related to specific event cancellation treaties underwritten in the U.S., which TransRe began to exit prior to the Pandemic in February 2019. Based on current information, estimated exposed limits remaining on this portfolio, net of provisions, are approximately \$53 million for 2020 events and \$38 million for events scheduled throughout 2021. Events and event cancellation policies are not uniform in nature. Ultimate losses will depend on the timing of gathering restrictions being lifted, whether the event can be rescheduled and how far in advance the event is postponed or cancelled. As such, cancellation or postponement of the event does not necessarily mean a full limit will be paid. Furthermore, there could be additional incidental losses where event cancellation

policies comprise a small portion of exposure to certain multi-line treaties. Pandemic losses in 2020 include the impact of a September 15, 2020 U.K. court ruling that upheld certain U.K. policyholder business interruption claims brought against the insurance industry.

We cannot reasonably estimate the length or severity of the Pandemic, or the extent to which the related disruption may adversely impact our results of operations, financial position and cash flows. Such potential adverse impacts of a prolonged Pandemic on our operations, financial position and cash flows include further declines in our equity securities portfolio, additional credit-related realized and unrealized losses on our debt securities and commercial mortgage portfolios, additional credit losses on our reinsurance recoverables and other receivables, further losses from event cancellation and other coverages from our reinsurance and insurance subsidiaries, increased litigation and impairment of certain Alleghany Capital subsidiary goodwill and intangible assets.

Aside from the Pandemic, our reinsurance and insurance segments incurred significant weather and other catastrophe losses. More specifically, in 2020:

- Hurricane Laura caused widespread property damage and flooding in August 2020, primarily in Louisiana and Texas;
- Hurricane Sally caused widespread property damage and flooding in September 2020, primarily in Alabama and Florida; and
- Earthquakes in Puerto Rico caused widespread property damage, primarily in January 2020.

In 2019:

- Typhoon Hagibis caused widespread property damage and flooding in October 2019, primarily in Japan, and affected regions which included those affected by Typhoon Faxai, which caused widespread property damage and flooding in September 2019, primarily in Japan;
- Civil unrest in Chile caused widespread property damage in the fourth quarter of 2019; and
- Hurricane Dorian caused widespread property damage and flooding in August and September 2019, primarily in the Bahamas, North Carolina and South Carolina.

In 2018:

- Typhoons Jebi and Trami caused widespread property damage and flooding in September 2018, primarily in Japan;
- Wildfires in California caused widespread property damage primarily in the fourth quarter of 2018;
- Hurricane Michael caused widespread property damage and flooding in October 2018, primarily in Florida and Georgia; and
- Hurricane Florence caused widespread property damage and flooding in September 2018, primarily in North Carolina.

Our loss estimates for all of these catastrophes were based on information available at the time, including an analysis of reported claims, an underwriting review of in-force contracts, estimates of losses resulting from wind and other perils, including storm surge and flooding to the extent covered by applicable policies, and other factors requiring considerable judgment.

The following table presents the impact of our catastrophe losses, net of reinsurance, for 2020, 2019 and 2018:

	Reinsurance Segment	Insurance Segment (\$ in millions)	Total Segments
2020			
Net loss and LAE:			
Pandemic	\$ 391.8	\$ 23.4	\$ 415.2
Other natural catastrophes:			
Hurricane Laura	63.6	50.6	114.2
Hurricane Sally	22.7	69.9	92.6
Puerto Rico earthquakes	19.1	—	19.1
Other	68.8	91.6	160.4
Total other natural catastrophes	174.2	212.1	386.3
Total net loss and LAE	566.0	235.5	801.5
Net reinstatement premiums (earned) (1)	(26.7)	—	(26.7)
Losses before income taxes	539.3	235.5	774.8
Income taxes	113.2	49.5	162.7
Net losses attributable to Alleghany stockholders	\$ 426.1	\$ 186.0	\$ 612.1
2019			
Net loss and LAE:			
Typhoon Hagibis	\$ 168.2	\$ 15.5	\$ 183.7
Typhoon Faxai	87.4	8.0	95.4
Chile civil unrest	22.3	—	22.3
Hurricane Dorian	13.2	0.4	13.6
Other	9.5	75.2	84.7
Total net loss and LAE	300.6	99.1	399.7
Net reinstatement premiums (earned) (1)	(22.2)	—	(22.2)
Losses before income taxes	278.4	99.1	377.5
Income taxes	58.5	20.8	79.3
Net losses attributable to Alleghany stockholders	\$ 219.9	\$ 78.3	\$ 298.2
2018			
Net loss and LAE:			
Typhoon Jebi	\$ 167.2	\$ 16.2	\$ 183.4
California wildfires	163.7	18.3	182.0
Hurricane Michael	80.1	55.1	135.2
Hurricane Florence	36.5	33.9	70.4
Typhoon Trami	29.7	4.0	33.7
Other	22.9	30.1	53.0
Total net loss and LAE	500.1	157.6	657.7
Net reinstatement premiums (earned) (1)	(31.9)	—	(31.9)
Losses before income taxes	468.2	157.6	625.8
Income taxes	98.3	33.1	131.4
Net losses attributable to Alleghany stockholders	\$ 369.9	\$ 124.5	\$ 494.4

(1) Represents an increase in net premiums earned.

Our catastrophe losses are more fully described on pages 94, 95, 101 and 102. In addition to catastrophe losses in the current accident year, we report both favorable and unfavorable prior accident year loss reserve development related to catastrophes. See Note 6 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for detail on our prior accident year catastrophe loss reserve development.

Consolidated Results of Operations

The following table presents our consolidated revenues, costs and expenses and earnings:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions)		
Revenues			
Net premiums earned	\$ 6,000.2	\$ 5,478.1	\$ 4,976.2
Net investment income	490.9	550.2	500.5
Change in the fair value of equity securities	(110.5)	709.7	(229.0)
Net realized capital gains	3.1	(6.5)	(3.2)
Change in allowance for credit losses on available for sale securities	(8.0)	(19.7)	(1.3)
Noninsurance revenue	2,521.1	2,328.8	1,644.0
Total revenues	8,896.8	9,040.6	6,887.2
Costs and Expenses			
Net loss and loss adjustment expenses	4,339.1	3,686.4	3,520.4
Commissions, brokerage and other underwriting expenses	1,789.8	1,758.7	1,617.3
Other operating expenses	2,429.3	2,263.3	1,579.3
Corporate administration	48.6	74.8	15.9
Amortization of intangible assets	44.2	33.8	24.0
Interest expense	88.2	100.0	90.7
Total costs and expenses	8,739.2	7,917.0	6,847.6
Earnings before income taxes	157.6	1,123.6	39.6
Income taxes	30.7	233.4	(15.0)
Net earnings	126.9	890.2	54.6
Net earnings attributable to noncontrolling interests	25.1	32.4	15.1
Net earnings attributable to Alleghany stockholders	\$ 101.8	\$ 857.8	\$ 39.5

Alleghany's segments are reported in a manner consistent with the way management evaluates the businesses. As such, Alleghany classifies its businesses into three reportable segments – reinsurance, insurance and Alleghany Capital. Corporate activities are not classified as a segment.

See Note 13 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional detail on our segments and corporate activities. The tables below present the results for our segments and for corporate activities for 2020, 2019 and 2018:

Year Ended December 31, 2020	Segments					Corporate Activities(2)	Consolidated
	Reinsurance Segment	Insurance Segment	Subtotal	Alleghany Capital(1) (\$ in millions)	Total Segments		
Gross premiums written	\$ 5,237.3	\$ 2,125.7	\$ 7,363.0	\$ —	\$ 7,363.0	\$ (33.6)	\$ 7,329.4
Net premiums written	4,845.0	1,499.4	6,344.4	—	6,344.4	—	6,344.4
Net premiums earned	4,644.7	1,355.5	6,000.2	—	6,000.2	—	6,000.2
Net loss and LAE:							
Current year (excluding catastrophe losses)(3)	3,027.8	730.6	3,758.4	—	3,758.4	—	3,758.4
Current year catastrophe losses	566.0	235.5	801.5	—	801.5	—	801.5
Prior years	(206.9)	(13.9)	(220.8)	—	(220.8)	—	(220.8)
Total net loss and LAE	3,386.9	952.2	4,339.1	—	4,339.1	—	4,339.1
Commissions, brokerage and other underwriting expenses	1,425.0	364.8	1,789.8	—	1,789.8	—	1,789.8
Underwriting (loss) profit(4)	\$ (167.2)	\$ 38.5	(128.7)	—	(128.7)	—	(128.7)
Net investment income			465.7	1.9	467.6	23.3	490.9
Change in the fair value of equity securities			(55.8)	—	(55.8)	(54.7)	(110.5)
Net realized capital gains			37.1	35.5	72.6	(69.5)	3.1
Change in allowance for credit losses on available for sale securities			(8.0)	—	(8.0)	—	(8.0)
Noninsurance revenue			34.9	2,477.5	2,512.4	8.7	2,521.1
Other operating expenses			103.6	2,310.0	2,413.6	15.7	2,429.3
Corporate administration			(0.3)	—	(0.3)	48.9	48.6
Amortization of intangible assets			0.8	43.4	44.2	—	44.2
Interest expense			27.0	15.5	42.5	45.7	88.2
Earnings (losses) before income taxes			\$ 214.1	\$ 146.0	\$ 360.1	\$ (202.5)	\$ 157.6
Loss ratio(5):							
Current year (excluding catastrophe losses)	65.2%	53.9%	62.6%				
Current year catastrophe losses	12.2%	17.4%	13.4%				
Prior years	(4.5%)	(1.0%)	(3.7%)				
Total net loss and LAE	72.9%	70.3%	72.3%				
Expense ratio(6)	30.7%	26.9%	29.8%				
Combined ratio(7)	103.6%	97.2%	102.1%				

Year Ended December 31, 2019	Segments				Total Segments	Corporate Activities(2)	Consolidated
	Reinsurance Segment	Insurance Segment	Subtotal	Alleghany Capital(1) (\$ in millions)			
Gross premiums written	\$ 4,945.7	\$ 1,738.4	\$ 6,684.1	\$ —	\$ 6,684.1	\$ (27.7)	\$ 6,656.4
Net premiums written	4,495.0	1,256.7	5,751.7	—	5,751.7	—	5,751.7
Net premiums earned	4,327.0	1,151.1	5,478.1	—	5,478.1	—	5,478.1
Net loss and LAE:							
Current year (excluding catastrophe losses)	2,856.3	615.1	3,471.4	—	3,471.4	—	3,471.4
Current year catastrophe losses	300.6	99.1	399.7	—	399.7	—	399.7
Prior years	(195.8)	11.1	(184.7)	—	(184.7)	—	(184.7)
Total net loss and LAE	2,961.1	725.3	3,686.4	—	3,686.4	—	3,686.4
Commissions, brokerage and other underwriting expenses	1,406.8	351.9	1,758.7	—	1,758.7	—	1,758.7
Underwriting (loss) profit(4)	<u>\$ (40.9)</u>	<u>\$ 73.9</u>	<u>33.0</u>	<u>—</u>	<u>33.0</u>	<u>—</u>	<u>33.0</u>
Net investment income			533.2	6.3	539.5	10.7	550.2
Change in the fair value of equity securities			705.8	—	705.8	3.9	709.7
Net realized capital gains			6.0	1.0	7.0	(13.5)	(6.5)
Change in allowance for credit losses on available for sale securities			(19.7)	—	(19.7)	—	(19.7)
Noninsurance revenue			27.0	2,289.3	2,316.3	12.5	2,328.8
Other operating expenses			103.1	2,132.9	2,236.0	27.3	2,263.3
Corporate administration			4.1	—	4.1	70.7	74.8
Amortization of intangible assets			1.3	32.5	33.8	—	33.8
Interest expense			27.1	20.1	47.2	52.8	100.0
Earnings (losses) before income taxes			<u>\$ 1,149.7</u>	<u>\$ 111.1</u>	<u>\$ 1,260.8</u>	<u>\$ (137.2)</u>	<u>\$ 1,123.6</u>
Loss ratio(5):							
Current year (excluding catastrophe losses)	66.0%	53.4%	63.4%				
Current year catastrophe losses	6.9%	8.6%	7.3%				
Prior years	(4.5%)	1.0%	(3.4%)				
Total net loss and LAE	68.4%	63.0%	67.3%				
Expense ratio(6)	32.5%	30.6%	32.1%				
Combined ratio(7)	<u>100.9%</u>	<u>93.6%</u>	<u>99.4%</u>				

Year Ended December 31, 2018	Segments			Alleghany Capital(1)	Total Segments	Corporate Activities(2)	Consolidated
	Reinsurance Segment	Insurance Segment	Subtotal				
				(\$ in millions)			
Gross premiums written	\$ 4,451.0	\$ 1,470.8	\$ 5,921.8	\$ —	\$ 5,921.8	\$ (26.2)	\$ 5,895.6
Net premiums written	3,969.1	1,079.3	5,048.4	—	5,048.4	—	5,048.4
Net premiums earned	3,939.0	1,037.2	4,976.2	—	4,976.2	—	4,976.2
Net loss and LAE:							
Current year (excluding catastrophe losses)	2,635.3	556.4	3,191.7	—	3,191.7	—	3,191.7
Current year catastrophe losses	500.1	157.6	657.7	—	657.7	—	657.7
Prior years	(266.1)	(62.9)	(329.0)	—	(329.0)	—	(329.0)
Total net loss and LAE	2,869.3	651.1	3,520.4	—	3,520.4	—	3,520.4
Commissions, brokerage and other underwriting expenses	1,282.3	335.0	1,617.3	—	1,617.3	—	1,617.3
Underwriting (loss) profit(4)	\$ (212.6)	\$ 51.1	(161.5)	—	(161.5)	—	(161.5)
Net investment income			480.9	4.8	485.7	14.8	500.5
Change in the fair value of equity securities			(184.2)	—	(184.2)	(44.8)	(229.0)
Net realized capital gains			31.6	0.9	32.5	(35.7)	(3.2)
Change in allowance for credit losses on available for sale securities			(1.3)	—	(1.3)	—	(1.3)
Noninsurance revenue			22.0	1,574.6	1,596.6	47.4	1,644.0
Other operating expenses			59.8	1,485.6	1,545.4	33.9	1,579.3
Corporate administration			(1.7)	—	(1.7)	17.6	15.9
Amortization of intangible assets			(0.4)	24.4	24.0	—	24.0
Interest expense			27.1	10.5	37.6	53.1	90.7
Earnings (losses) before income taxes			\$ 102.7	\$ 59.8	\$ 162.5	\$ (122.9)	\$ 39.6
Loss ratio(5):							
Current year (excluding catastrophe losses)	66.9%	53.6%	64.1%				
Current year catastrophe losses	12.7%	15.3%	13.2%				
Prior years	(6.8%)	(6.1%)	(6.6%)				
Total net loss and LAE	72.8%	62.8%	70.7%				
Expense ratio(6)	32.6%	32.3%	32.5%				
Combined ratio(7)	105.4%	95.1%	103.2%				

(1) Excludes certain minor, legacy investments that were previously reflected in Alleghany Capital in 2018 and prior periods.

(2) Underwriting profit represents net premiums earned less net loss and LAE and commissions, brokerage and other underwriting expenses, all as determined in accordance with GAAP, and does not include net investment income, change in the fair value of equity securities, net realized capital gains, change in allowance for credit losses on available for sale securities, noninsurance revenue, other operating expenses, corporate administration, amortization of intangible assets and interest expense. Underwriting profit is a non-GAAP financial measure and does not replace earnings before income taxes determined in accordance with GAAP as a measure of profitability. See “Comment on Non-GAAP Financial Measures” herein for additional detail on the presentation of our results of operations.

(3) Catastrophe losses in 2020 include \$391.8 million, \$23.4 million and \$415.2 million of Pandemic-related losses incurred at our reinsurance segment, insurance segment and in total, respectively, as described above.

(4) The loss ratio is derived by dividing the amount of net loss and LAE by net premiums earned, all as determined in accordance with GAAP.

(5) The expense ratio is derived by dividing the amount of commissions, brokerage and other underwriting expenses by net premiums earned, all as determined in accordance with GAAP.

(6) The combined ratio is the sum of the loss ratio and the expense ratio, all as determined in accordance with GAAP. The combined ratio represents the percentage of each premium dollar a reinsurance or an insurance company has to spend on net loss and LAE, and commissions, brokerage and other underwriting expenses.

Comparison of 2020, 2019 and 2018

Premiums. The following table presents our consolidated premiums:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Premiums written:					
Gross premiums written	\$ 7,329.4	\$ 6,656.4	\$ 5,895.6	10.1%	12.9%
Net premiums written	6,344.4	5,751.7	5,048.4	10.3%	13.9%
Net premiums earned	6,000.2	5,478.1	4,976.2	9.5%	10.1%

2020 vs 2019. The increase in gross premiums written in 2020 from 2019 is attributable to growth at our reinsurance segment as well as our insurance segment, primarily at RSUI. The increase at our reinsurance segment primarily reflects generally improving rates overall, growth in various traditional casualty and other professional liability lines of business in the U.S. and, to a lesser extent, the impact of changes in foreign exchange rates. The increase in gross premiums written in 2020 was partially offset by a decrease in automobile-related business in the U.S. arising from rebates at our cedants in reaction to a Pandemic-driven reduction in personal and commercial automobile usage worldwide. Gross premiums written from a certain large whole account quota share treaty, or the “Quota Share Treaty,” were \$676.7 million in 2020, respectively, compared with \$691.4 million in 2019, reflecting a decrease in casualty & other premiums. The increase in gross premiums written in 2020 from 2019 at RSUI primarily reflects growth in most lines of business due to increases in business opportunities, higher rates and improved general market conditions, particularly in the property, umbrella/excess and directors’ and officers’ liability lines of business.

The increase in net premiums earned in 2020 from 2019 reflects growth in reinsurance and insurance segment gross premiums written in recent quarters.

2019 vs 2018. The increase in gross premiums written in 2019 from 2018 is attributable to growth at our reinsurance segment and, to a lesser extent, at RSUI and CapSpecialty. Growth at our reinsurance segment primarily reflects higher premiums written by the domestic operations, which include the impact of TransRe’s purchase on August 29, 2018 of certain renewal rights to a block of U.S. treaty reinsurance business focused on regional property and casualty, accident & health and personal auto lines of business, or the “Renewal Rights Purchase.” The increase in gross premiums written at our reinsurance segment was partially offset by lower Quota Share Treaty gross premiums written and the impact of changes in foreign currency exchange rates. Gross premiums written related to the Quota Share Treaty decreased to \$691.4 million in 2019 from \$737.6 million in 2018, reflecting a reduction of TransRe’s quota share participation.

The increase in net premiums written in 2019 from 2018 primarily reflects higher gross premiums written and lower ceded premiums written due to a decrease in retrocessional coverage purchased in 2019 at our reinsurance segment.

The increase in net premiums earned in 2019 from 2018 reflects growth in gross premiums written in recent quarters and, to a lesser extent, decreases in ceded premiums in recent quarters at our reinsurance segment.

A detailed comparison of premiums by segment for 2020, 2019 and 2018 is contained on pages 93, 94 and 100.

Net loss and LAE. The following table presents our consolidated net loss and LAE:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Net loss and LAE:					
Current year (excluding catastrophe losses)	\$ 3,758.4	\$ 3,471.4	\$ 3,191.7	8.3%	8.8%
Current year catastrophe losses	801.5	399.7	657.7	100.5%	(39.2%)
Prior years	(220.8)	(184.7)	(329.0)	19.5%	(43.9%)
Total net loss and LAE	<u>\$ 4,339.1</u>	<u>\$ 3,686.4</u>	<u>\$ 3,520.4</u>	17.7%	4.7%
Loss ratio:					
Current year (excluding catastrophe losses)	62.6%	63.4%	64.1%		
Current year catastrophe losses	13.4%	7.3%	13.2%		
Prior years	(3.7%)	(3.4%)	(6.6%)		
Total net loss and LAE	<u>72.3%</u>	<u>67.3%</u>	<u>70.7%</u>		

2020 vs 2019. The increase in net loss and LAE in 2020 from 2019 primarily reflects Pandemic-related catastrophe losses and, to a lesser extent, the impact of increases in net premiums, all as discussed above.

The catastrophe losses in 2020 include \$415.2 million related to the Pandemic and \$386.3 million related to other natural catastrophes, which included losses from Hurricane Laura, Hurricane Sally and Puerto Rico earthquakes, compared with \$399.7 million of catastrophe losses in 2019, which included losses from Typhoon Hagibis, Typhoon Faxai, civil unrest in Chile and Hurricane Dorian.

2019 vs 2018. The increase in net loss and LAE in 2019 from 2018 primarily reflects the impact of higher net premiums earned and lower favorable prior accident year loss reserve development, partially offset by significantly lower catastrophe losses, primarily at our reinsurance segment. Catastrophe losses in 2018 of \$657.7 million include losses from Typhoon Jebi, wildfires in California, Hurricane Michael, Hurricane Florence and Typhoon Trami.

A detailed comparison of net loss and LAE by segment for 2020, 2019 and 2018 is contained on pages 94, 95, 96 and 101.

Commissions, brokerage and other underwriting expenses. The following table presents our consolidated commissions, brokerage and other underwriting expenses:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Commissions, brokerage and other underwriting expenses	\$ 1,789.8	\$ 1,758.7	\$ 1,617.3	1.8%	8.7%
Expense ratio	29.8%	32.1%	32.5%		

2020 vs 2019. The increase in commissions, brokerage and other underwriting expenses in 2020 from 2019 primarily reflects the impact of higher net premiums earned, as discussed above, partially offset by lower overall commission rates, lower annual incentive compensation accruals and a Pandemic-driven reduction in travel and entertainment costs.

2019 vs 2018. The increase in commissions, brokerage and other underwriting expenses in 2019 from 2018 primarily reflects the impact of higher net premiums earned, partially offset by lower overall commission rates due to a change in the mix of business.

A detailed comparison of commissions, brokerage and other underwriting expenses by segment for 2020, 2019 and 2018 is contained on pages 96 and 103.

Underwriting profit. The following table presents our consolidated underwriting profit (loss):

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Underwriting (loss) profit	\$ (128.7)	\$ 33.0	\$ (161.5)	(490.0%)	(120.4%)
Combined ratio	102.1%	99.4%	103.2%		

2020 vs 2019. The underwriting loss in 2020 compared to the underwriting profit in 2019 primarily reflects Pandemic-related catastrophe losses at our reinsurance segment and, to a lesser extent, RSUI, all as discussed above.

2019 vs 2018. The underwriting profit in 2019 compared with the underwriting loss in 2018 primarily reflects significantly lower catastrophe losses, primarily at our reinsurance segment, and the impact of an increase in net premiums earned, partially offset by lower favorable prior accident year loss reserve development, all as discussed above.

A detailed comparison of underwriting profit by segment for 2020, 2019 and 2018 is contained on pages 97, 103 and 104.

Investment results. The following table presents our consolidated investment results:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Net investment income	\$ 490.9	\$ 550.2	\$ 500.5	(10.8%)	9.9%
Change in the fair value of equity securities	(110.5)	709.7	(229.0)	(115.6%)	(409.9%)
Net realized capital gains	3.1	(6.5)	(3.2)	(147.7%)	103.1%
Change in allowance for credit losses on available for sale securities	(8.0)	(19.7)	(1.3)	(59.4%)	1,415.4%

2020 vs 2019. The decrease in net investment income in 2020 from 2019 primarily reflects lower interest income and, to a lesser extent, lower dividend income. Lower interest income reflects the impact of low reinvestment yields on debt securities and lower yields on short term investments and floating-rate debt securities. Lower dividend income reflects reductions in our equity security portfolio during most of 2020.

The change in the fair value of equity securities in 2020 reflects depreciation in the value of our equity securities portfolio due primarily to the impact of the Pandemic and related economic and financial market disruptions in the spring of 2020, net of a subsequent appreciation on a smaller portfolio from the improved conditions. To a lesser extent, the change in the fair value of equity securities in 2020 reflects depreciation from our holdings in the materials sector.

Net realized capital gains in 2020 primarily reflect realized gains at Alleghany Capital and realized gains on our debt securities portfolio, partially offset by realized losses at corporate activities due primarily to impairment charges from write-downs of SORC oil field assets, prior to SORC's December 31, 2020 sale. See Note 4(e) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on our net realized capital gains and losses.

On July 18, 2019, AIHL purchased an exchange-traded equity derivative index put option, or the "Put Option," for \$38.4 million to hedge the downside equity market risk on approximately \$1.0 billion of our equity portfolio. The Put Option did not qualify for hedge accounting. The Put Option expired worthless on December 31, 2019, and the resulting \$38.4 million decline in value of the Put Option was recorded as a reduction to net realized capital gains.

Net realized capital losses in 2019 primarily reflect the \$38.4 million decline in value of the Put Option and a \$13.6 million loss from the December 2019 sale of a privately held investment accounted for under the equity method, partially offset by gains on the sale of debt securities.

The change in allowance for credit losses on available-for-sale, or "AFS," securities in 2020 reflects \$8.0 million of unrealized losses on debt securities, primarily related to the energy sector and lower-quality corporate bonds in other sectors due to a significant decline in their fair value relative to their amortized cost in the spring of 2020, net of a subsequent reduction of the allowance for credit losses on AFS securities arising from the improved bond market conditions and bond sales later in 2020. The change in allowance for credit losses on AFS securities in 2019 primarily reflects the determination that unrealized losses on our debt securities were other than temporary, primarily due to the deterioration of creditworthiness of the issuers in the domestic energy sector. In addition, certain foreign bonds were impaired in 2019 due to a significant decline in fair value.

2019 vs 2018. The increase in net investment income in 2019 from 2018 primarily reflects higher interest income, partially offset by lower dividend income. The increase in interest income and the decrease in dividend income primarily relate to a reallocation of a significant portion of our investment portfolio from equity securities to debt securities in the first quarter of 2019.

The change in the fair value of equity securities in 2019 reflects appreciation in the value of our equity securities portfolio, primarily from our holdings in the technology, industrial and financial sectors. The change in the fair value of equity securities in 2018 reflects depreciation in the value of our equity securities portfolio, primarily from our holdings in the energy, consumer, communications and materials sectors, partially offset by appreciation in the value of our equity holdings in the information technology sector.

Net realized capital losses in 2019 primarily reflect the \$38.4 million decline in value of the Put Option and a \$13.6 million loss from the December 2019 sale of a privately held investment accounted for under the equity method, partially offset by gains on the sale of debt securities. Net realized capital losses in 2018 primarily reflect a \$35.4 million capital loss due to an impairment charge from the write-down of certain SORC assets in 2018 arising from a decline in energy prices as of December 31, 2018, as well as losses on the sale of debt securities, partially offset by a \$45.7 million gain on AIHL's conversion of its limited partnership interests in certain subsidiaries of Ares Management LLC, or "Ares," into Ares common units in 2018.

The increase in change in allowance for credit losses on AFS securities in 2019 from 2018 reflects higher impairment losses for debt securities. Change in allowance for credit losses on AFS securities in 2019 primarily reflects the determination that unrealized losses on our debt securities were other than temporary, primarily due to the deterioration of creditworthiness of the issuers in the domestic energy sector. In addition, certain foreign bonds were impaired in 2019 due to a significant decline in fair value.

A detailed comparison of investment results for 2020, 2019 and 2018 is contained on page 104.

Noninsurance revenue and expenses. The following table presents our consolidated noninsurance revenue and expenses:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Noninsurance revenue	\$ 2,521.1	\$ 2,328.8	\$ 1,644.0	8.3%	41.7%
Other operating expenses	2,429.3	2,263.3	1,579.3	7.3%	43.3%
Corporate administration	48.6	74.8	15.9	(35.0%)	370.4%
Amortization of intangible assets	44.2	33.8	24.0	30.8%	40.8%
Interest expense	88.2	100.0	90.7	(11.8%)	10.3%

Noninsurance revenue and Other operating expenses. Noninsurance revenue and other operating expenses primarily include sales and expenses associated with our Alleghany Capital segment. Other operating expenses also include the long-term incentive compensation of our reinsurance and insurance segments, which totaled \$79.1 million, \$85.9 million and \$49.8 million in 2020, 2019 and 2018, respectively. The decrease in long-term incentive compensation accruals at our reinsurance and insurance segments in 2020 from 2019 primarily reflects the impact on expected payouts from poor underwriting results and significant depreciation in the value of our equity portfolio compared with 2019, all as discussed above. The increase in long-term incentive compensation at our reinsurance and insurance segments in 2019 from 2018 primarily reflect a decrease in catastrophe losses at our reinsurance segment and appreciation in the value of our debt and equity securities portfolio in 2019 compared with depreciation in 2018. See Note 14 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for additional information on long-term incentive compensation plans.

Other operating expenses in 2020 also include a \$6.2 million increase in estimates of expected credit losses on commercial mortgage loans, reinsurance recoverables and premium balances receivable at our reinsurance and insurance segments. This increase was based on current conditions and reasonable and supportable forecasts as of December 31, 2020, which include the impact of the Pandemic, as discussed above. See Note 1(r), 4(j) and 5(b) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for additional detail on credit losses for these assets.

Other operating expenses in 2020 also include \$5.6 million of costs incurred in connection with the termination and December 2020 payout of the TransRe executive retirement plan. See Note 15(a) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for additional detail.

Other operating expenses in 2019 also include \$5.0 million of one-time costs incurred in connection with the July 2019 retirement of CapSpecialty’s Chief Executive Officer and an additional \$2.5 million related to the repurchase of certain restricted common stock issued to CapSpecialty management in 2014.

The increases in noninsurance revenue and other operating expenses in 2020 from 2019 primarily reflect the impact of Wilbert’s April 1, 2020 inclusion in our consolidated results, as discussed above, and higher sales at Jazwares, primarily from recent acquisitions, partially offset by lower revenues and related costs at Concord, due to reduced management fee revenue from Pandemic-driven declines in hotel occupancy and Pandemic-related project delays and site closures at Kentucky Trailer, W&W|AFCO Steel and IPS. The increase in other operating expenses in 2020 also reflects the cost of Pandemic-related customer site closures and additional safety measures, all as further discussed below, partially offset by lower long-term incentive compensation accruals at the Alleghany Capital level, as well as at our reinsurance and insurance segments, as discussed above.

The increases in noninsurance revenue and other operating expenses in 2019 from 2018 primarily reflect higher sales at IPS, W&W|AFCO Steel and Jazwares, as well as the acquisition of Concord, W&W|AFCO Steel’s acquisition of Hirschfeld and Jazwares’ acquisition of WCT, all as discussed above. The increase in other operating expenses in 2019 from 2018 also reflects increases in long-term compensation at our reinsurance and insurance segments, as discussed above.

Corporate administration. The decrease in corporate administration expense in 2020 from 2019 reflects significantly lower Alleghany parent company long-term incentive compensation accruals due primarily to the impact of depreciation of Alleghany stock price and lower consolidated net earnings attributable to Alleghany stockholders, as discussed below. The decrease was partially offset by the \$13.6 million pre-tax impact of the termination and December 2020 payout of the Alleghany parent-level executive retirement plan (see Note 15(a) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for additional detail).

The increase in corporate administration expense in 2019 from 2018 reflects higher Alleghany parent company long-term incentive compensation accruals due primarily to the impact of appreciation on the value of our consolidated debt and equity securities portfolios in 2019, compared with depreciation in 2018 and Alleghany stock price appreciation.

Amortization of intangible assets. The increase in amortization expense in 2020 from 2019 primarily reflects recent acquisitions by Jazwares and PCT, as well as the impact of Wilbert’s April 1, 2020 inclusion in our consolidated results.

The increase in amortization expense in 2019 from 2018 primarily reflects the Concord acquisition, Kentucky Trailer’s acquisition of two manufacturers of aluminum feed transportation equipment in December 2018 and July 2019, PCT’s acquisition of a consumable cutting tool manufacturer in June 2019, Jazwares’ acquisition of WCT in October 2019 and IPS’s acquisition in May 2019.

Interest expense. The decrease in interest expense in 2020 from 2019 primarily reflects the impact of lower overall interest rates on Alleghany Capital’s floating-rate borrowings, partially offset by the impact of Wilbert’s April 1, 2020 inclusion in our consolidated results. The decrease in interest expense for 2020 also reflects the impact of the early redemption of certain senior notes on January 15, 2020, partially offset by the issuance of certain other senior notes on May 18, 2020. See Note 8(a) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for additional detail.

The increase in interest expense in 2019 from 2018 primarily reflects borrowings at Concord (primarily used to finance Alleghany Capital's acquisition of Concord) and incremental debt at Jazwares resulting from the acquisition of WCT, as well as increased borrowings at other Alleghany Capital subsidiaries to support working capital needs and fund recent acquisitions.

A detailed comparison of noninsurance revenue and expenses for 2020, 2019 and 2018 is contained on pages 105 through 107.

Income taxes. The following table presents our consolidated income tax expense:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Income taxes	\$ 30.7	\$ 233.4	\$ (15.0)	(86.8%)	(1,656.0%)
Effective tax rate	19.5%	20.8%	(38.0%)		

2020 vs 2019. The decrease in income tax expense in 2020 from 2019 primarily reflects lower earnings before income taxes, as further discussed below and, to a lesser extent, a lower effective tax rate. The lower effective tax rate in 2020 primarily reflects lower earnings before income taxes and the resulting increase from the impact of permanent tax benefits, such as tax-exempt interest income and dividends-received deductions, when expressed on an effective tax rate basis.

The Coronavirus Aid, Relief and Economic Security Act, or the "CARES Act," was signed into law on March 27, 2020. Among other provisions, the CARES Act delayed certain employer payroll tax remittance deadlines and created or expanded certain income tax credits and loss carryback provisions. The beneficial impact of the CARES Act to us is currently not material.

2019 vs 2018. The income taxes in 2019 compared to income tax benefit in 2018 primarily reflect substantially higher earnings before income taxes. The increase in effective tax rate in 2019 compared with 2018 primarily reflects the impact of higher earnings before income taxes and, to a lesser extent, lower tax-exempt interest income arising from municipal bond securities and lower dividends-received deductions, partially offset by higher state income taxes.

Net earnings. The following table presents our consolidated earnings:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Earnings before income taxes	\$ 157.6	\$ 1,123.6	\$ 39.6	(86.0%)	2,737.4%
Net earnings attributable to noncontrolling interests	25.1	32.4	15.1	(22.5%)	114.6%
Net earnings attributable to Alleghany stockholders	101.8	857.8	39.5	(88.1%)	2,071.6%

2020 vs 2019. The decreases in earnings before income taxes and net earnings attributable to Alleghany stockholders in 2020 from 2019 primarily reflect the impact of depreciation in the value of our equity securities portfolio compared with significant appreciation in 2019 and, to a lesser extent, a Pandemic-driven underwriting loss compared with an underwriting profit in 2019, all as discussed above.

The decrease in net earnings attributable to noncontrolling interests in 2020 from 2019 primarily reflects lower accretion of redeemable noncontrolling interests up to their future estimated redemption value, partially offset by the impact of higher overall earnings at Alleghany Capital subsidiaries with noncontrolling interests. See Note 1(a) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on accretion of redeemable noncontrolling interests.

2019 vs 2018. The increases in earnings before income taxes and net earnings attributable to Alleghany stockholders in 2019 from 2018 primarily reflect appreciation of our equity securities portfolio compared with depreciation in 2018, significantly lower catastrophe losses and, to a lesser extent, profitable growth at Alleghany Capital, partially offset by lower favorable prior accident year loss reserve development and higher long-term incentive compensation expense accruals at the Alleghany parent company and our reinsurance and insurance segments, all as discussed above.

The increase in net earnings attributable to noncontrolling interests in 2019 from 2018 primarily reflects profitable growth at Alleghany Capital, as discussed above, as well as the impact of the Concord acquisition.

Reinsurance Segment Underwriting Results

The reinsurance segment is composed of TransRe's property and casualty & other lines of business. TransRe also writes a modest amount of property and casualty insurance business, which is included in the reinsurance segment. For a more detailed description of our reinsurance segment, see Part I, Item 1, "Business—Segment Information—Reinsurance Segment" of this Form 10-K.

The following tables present the underwriting results of the reinsurance segment:

Year Ended December 31, 2020	Property	Casualty & other ⁽¹⁾	Total
		(\$ in millions)	
Gross premiums written	\$ 1,761.7	\$ 3,475.6	\$ 5,237.3
Net premiums written	1,439.6	3,405.4	4,845.0
Net premiums earned	1,379.7	3,265.0	4,644.7
Net loss and LAE:			
Current year (excluding catastrophe losses)	756.8	2,271.0	3,027.8
Current year catastrophe losses	450.7	115.3	566.0
Prior years	(76.9)	(130.0)	(206.9)
Total net loss and LAE	1,130.6	2,256.3	3,386.9
Commissions, brokerage and other underwriting expenses	424.2	1,000.8	1,425.0
Underwriting (loss) profit ⁽²⁾	\$ (175.1)	\$ 7.9	\$ (167.2)
Loss ratio ⁽³⁾ :			
Current year (excluding catastrophe losses)	54.9%	69.6%	65.2%
Current year catastrophe losses	32.7%	3.5%	12.2%
Prior years	(5.6%)	(4.0%)	(4.5%)
Total net loss and LAE	82.0%	69.1%	72.9%
Expense ratio ⁽⁴⁾	30.7%	30.7%	30.7%
Combined ratio ⁽⁵⁾	112.7%	99.8%	103.6%
Year Ended December 31, 2019	Property	Casualty & other ⁽¹⁾	Total
		(\$ in millions)	
Gross premiums written	\$ 1,700.3	\$ 3,245.4	\$ 4,945.7
Net premiums written	1,328.8	3,166.2	4,495.0
Net premiums earned	1,280.1	3,046.9	4,327.0
Net loss and LAE:			
Current year (excluding catastrophe losses)	695.6	2,160.7	2,856.3
Current year catastrophe losses	293.2	7.4	300.6
Prior years	(46.2)	(149.6)	(195.8)
Total net loss and LAE	942.6	2,018.5	2,961.1
Commissions, brokerage and other underwriting expenses	424.2	982.6	1,406.8
Underwriting (loss) profit ⁽²⁾	\$ (86.7)	\$ 45.8	\$ (40.9)
Loss ratio ⁽³⁾ :			
Current year (excluding catastrophe losses)	54.3%	70.9%	66.0%
Current year catastrophe losses	22.9%	0.2%	6.9%
Prior years	(3.6%)	(4.9%)	(4.5%)
Total net loss and LAE	73.6%	66.2%	68.4%
Expense ratio ⁽⁴⁾	33.1%	32.2%	32.5%
Combined ratio ⁽⁵⁾	106.7%	98.4%	100.9%

Year Ended December 31, 2018	Property	Casualty & other(1) (\$ in millions)	Total
Gross premiums written	\$ 1,532.7	\$ 2,918.3	\$ 4,451.0
Net premiums written	1,169.4	2,799.7	3,969.1
Net premiums earned	1,177.3	2,761.7	3,939.0
Net loss and LAE:			
Current year (excluding catastrophe losses)	670.9	1,964.4	2,635.3
Current year catastrophe losses	481.8	18.3	500.1
Prior years	(84.9)	(181.2)	(266.1)
Total net loss and LAE	1,067.8	1,801.5	2,869.3
Commissions, brokerage and other underwriting expenses	384.9	897.4	1,282.3
Underwriting (loss) profit(2)	\$ (275.4)	\$ 62.8	\$ (212.6)
Loss ratio(3):			
Current year (excluding catastrophe losses)	57.0%	71.1%	66.9%
Current year catastrophe losses	40.9%	0.7%	12.7%
Prior years	(7.2%)	(6.6%)	(6.8%)
Total net loss and LAE	90.7%	65.2%	72.8%
Expense ratio(4)	32.7%	32.5%	32.6%
Combined ratio(5)	123.4%	97.7%	105.4%

- (1) Primarily consists of the following reinsurance lines of business: directors' and officers' liability; errors and omissions liability; general liability; medical malpractice; ocean marine and aviation; auto liability; accident & health; mortgage reinsurance; surety; and credit.
- (2) Underwriting profit represents net premiums earned less net loss and LAE and commissions, brokerage and other underwriting expenses, all as determined in accordance with GAAP, and does not include net investment income, change in the fair value of equity securities, net realized capital gains, change in allowance for credit losses on available for sale securities, noninsurance revenue, other operating expenses, corporate administration, amortization of intangible assets and interest expense. Underwriting profit is a non-GAAP financial measure and does not replace earnings before income taxes determined in accordance with GAAP as a measure of profitability. See "Comment on Non-GAAP Financial Measures" herein for additional detail on the presentation of our results of operations.
- (3) The loss ratio is derived by dividing the amount of net loss and LAE by net premiums earned, all as determined in accordance with GAAP.
- (4) The expense ratio is derived by dividing the amount of commissions, brokerage and other underwriting expenses by net premiums earned, all as determined in accordance with GAAP.
- (5) The combined ratio is the sum of the loss ratio and the expense ratio, all as determined in accordance with GAAP. The combined ratio represents the percentage of each premium dollar a reinsurance or an insurance company has to spend on net loss and LAE, and commissions, brokerage and other underwriting expenses.

Reinsurance Segment: Premiums. The following table presents premiums for the reinsurance segment:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
(\$ in millions)					
Property					
Premiums written:					
Gross premiums written	\$ 1,761.7	\$ 1,700.3	\$ 1,532.7	3.6%	10.9%
Net premiums written	1,439.6	1,328.8	1,169.4	8.3%	13.6%
Net premiums earned	1,379.7	1,280.1	1,177.3	7.8%	8.7%
Casualty & other					
Premiums written:					
Gross premiums written	\$ 3,475.6	\$ 3,245.4	\$ 2,918.3	7.1%	11.2%
Net premiums written	3,405.4	3,166.2	2,799.7	7.6%	13.1%
Net premiums earned	3,265.0	3,046.9	2,761.7	7.2%	10.3%
Total					
Premiums written:					
Gross premiums written	\$ 5,237.3	\$ 4,945.7	\$ 4,451.0	5.9%	11.1%
Net premiums written	4,845.0	4,495.0	3,969.1	7.8%	13.2%
Net premiums earned	4,644.7	4,327.0	3,939.0	7.3%	9.9%

Property. The increase in gross premiums written in 2020 from 2019 primarily reflects generally improving rates and growth in non-catastrophe property lines of business and, to a lesser extent, changes in foreign currency exchange rates, partially offset by a decreased participation in a large, global treaty. Gross premiums written related to the Quota Share Treaty were \$280.6 million in 2020 compared with \$276.9 million in 2019. Excluding the impact of changes in foreign currency exchange rates, gross premiums written increased by 3.4 percent in 2020 from 2019.

The increase in net premiums earned in 2020 from 2019 primarily reflects the impact of higher gross premiums written and lower ceded premiums written in recent quarters and, to a lesser extent, the impact of changes in foreign currency exchange rates. Excluding the impact of changes in foreign currency exchange rates, net premiums earned increased by 7.5 percent in 2020 from 2019.

The increase in gross premiums written in 2019 from 2018 primarily reflects: (i) higher premiums written by the domestic operations, which include the impact of the Renewal Rights Purchase; and (ii) higher premiums written by the Asia-Pacific and Latin America operations mainly in the property catastrophe lines of business; (iii) partially offset by the impact of changes in foreign currency exchange rates. Gross premiums written related to the Quota Share Treaty were \$276.9 million and \$280.8 million in 2019 and 2018, respectively, reflecting a reduction of TransRe's quota share participation. Excluding the impact of changes in foreign currency exchange rates, gross premiums written increased by 12.0 percent in 2019 from 2018. The increase in net premiums earned in 2019 from 2018 primarily reflects the impact of higher gross premiums written, partially offset by the impact of changes in foreign currency exchange rates. Excluding the impact of changes in foreign currency exchange rates, net premiums earned increased by 10.0 percent in 2019 from 2018.

Casualty & other. The increase in gross premiums written in 2020 from 2019 primarily reflects generally improving rates overall and growth in the various traditional casualty and other professional liability lines of business in the U.S. and, to a lesser extent, changes in foreign currency exchange rates, partially offset by decreases in automobile-related business in the U.S. arising from rebates at our cedants in reaction to a Pandemic-driven reduction in personal and commercial automobile usage worldwide. Gross premiums written related to the Quota Share Treaty were \$396.1 million and \$414.5 million 2020 and 2019, respectively, primarily reflecting a decrease in the automobile-related business. Excluding the impact of changes in foreign currency exchange rates, gross premiums written increased by 6.8 percent in 2020 from 2019.

The increase in net premiums earned in 2020 from 2019 primarily reflects the impact of higher gross premiums written in recent quarters and, to a lesser extent, the impact of changes in foreign currency exchange rates. Excluding the impact of changes in foreign currency exchange rates, net premiums earned increased by 6.8 percent in 2020 from 2019.

The increase in gross premiums written in 2019 from 2018 primarily reflects: (i) higher gross premiums written by the domestic operations, which include the impact of the Renewal Rights Purchase, partially offset by lower gross premiums written related to the Quota Share Treaty; and (ii) higher gross premiums written by the European operations mainly in the auto/motor, marine and accident & health lines of business, partially offset by the impact of changes in foreign currency exchange rates. Gross premiums written related to the Quota Share Treaty were \$414.5 million and \$456.8 million in 2019 and 2018, respectively, reflecting a reduction of TransRe's quota share participation. Excluding the impact of changes in foreign currency exchange rates,

gross premiums written increased by 12.0 percent in 2019 from 2018. The increase in net premiums earned in 2019 from 2018 primarily reflects the impact of higher gross premiums written and lower ceded premiums in recent quarters due to a decrease in retrocessional coverage purchased in 2019, partially offset by the impact of changes in foreign currency exchange rates. Excluding the impact of changes in foreign currency exchange rates, net premiums earned increased by 11.2 percent in 2019 from 2018.

Reinsurance Segment: Net loss and LAE. The following table presents net loss and LAE for the reinsurance segment:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Property					
Net loss and LAE:					
Current year (excluding catastrophe losses)	\$ 756.8	\$ 695.6	\$ 670.9	8.8%	3.7%
Current year catastrophe losses	450.7	293.2	481.8	53.7%	(39.1%)
Prior years	(76.9)	(46.2)	(84.9)	66.5%	(45.6%)
Total net loss and LAE	<u>\$ 1,130.6</u>	<u>\$ 942.6</u>	<u>\$ 1,067.8</u>	19.9%	(11.7%)
Loss ratio:					
Current year (excluding catastrophe losses)	54.9%	54.3%	57.0%		
Current year catastrophe losses	32.7%	22.9%	40.9%		
Prior years	(5.6%)	(3.6%)	(7.2%)		
Total net loss and LAE	<u>82.0%</u>	<u>73.6%</u>	<u>90.7%</u>		
Casualty & other					
Net loss and LAE:					
Current year (excluding catastrophe losses)	\$ 2,271.0	\$ 2,160.7	\$ 1,964.4	5.1%	10.0%
Current year catastrophe losses	115.3	7.4	18.3	1,458.1%	(59.6%)
Prior years	(130.0)	(149.6)	(181.2)	(13.1%)	(17.4%)
Total net loss and LAE	<u>\$ 2,256.3</u>	<u>\$ 2,018.5</u>	<u>\$ 1,801.5</u>	11.8%	12.0%
Loss ratio:					
Current year (excluding catastrophe losses)	69.6%	70.9%	71.1%		
Current year catastrophe losses	3.5%	0.2%	0.7%		
Prior years	(4.0%)	(4.9%)	(6.6%)		
Total net loss and LAE	<u>69.1%</u>	<u>66.2%</u>	<u>65.2%</u>		
Total					
Net loss and LAE:					
Current year (excluding catastrophe losses)	\$ 3,027.8	\$ 2,856.3	\$ 2,635.3	6.0%	8.4%
Current year catastrophe losses	566.0	300.6	500.1	88.3%	(39.9%)
Prior years	(206.9)	(195.8)	(266.1)	5.7%	(26.4%)
Total net loss and LAE	<u>\$ 3,386.9</u>	<u>\$ 2,961.1</u>	<u>\$ 2,869.3</u>	14.4%	3.2%
Loss ratio:					
Current year (excluding catastrophe losses)	65.2%	66.0%	66.9%		
Current year catastrophe losses	12.2%	6.9%	12.7%		
Prior years	(4.5%)	(4.5%)	(6.8%)		
Total net loss and LAE	72.9%	68.4%	72.8%		

Property. The increase in net loss and LAE in 2020 from 2019 primarily reflects significant catastrophe losses and, to a lesser extent, the impact of higher net premiums earned, partially offset by higher favorable prior accident year loss reserve development.

Catastrophe losses in 2020 include \$286.4 million of Pandemic-related catastrophe losses, as discussed above, as well as \$59.9 million related to Hurricane Laura, \$21.6 million related to Hurricane Sally and \$19.0 million related to earthquakes in Puerto Rico. Weather-related catastrophe losses in 2020 also include \$63.8 million of losses from: (i) typhoons and flooding in Asia; (ii) a derecho in August 2020, which caused widespread property and crop damage, primarily in Iowa; (iii) a hailstorm in Alberta, Canada; (iv) Hurricane Delta; (v) Hurricane Eta; and (vi) Hurricane Zeta. Catastrophe losses in 2019 include \$164.6 million related to Typhoon Hagibis, \$86.9 million related to Typhoon Faxai, \$22.3 million related to civil unrest in Chile, \$10.3 million related to Hurricane Dorian and \$9.1 million related to other catastrophes.

The decrease in net loss and LAE in 2019 from 2018 primarily reflects significantly lower catastrophe losses. Catastrophe losses in 2019 are as discussed above. Catastrophe losses in 2018 include \$163.2 million related to Typhoon Jebi, \$160.6 million related to wildfires in California, \$76.7 million related to Hurricane Michael, \$31.9 million related to Hurricane Florence, \$29.7 million related to Typhoon Trami and \$19.7 million related to several severe weather events in East Asia.

Net loss and LAE in 2020, 2019 and 2018 include (favorable) unfavorable prior accident year loss reserve development as presented in the table below:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions)		
Catastrophe events	\$ (43.3) (1)	\$ (6.8) (2)	\$ (20.2) (3)
Non-catastrophe	(33.6) (4)	(39.4) (5)	(64.7) (6)
Total	\$ (76.9)	\$ (46.2)	\$ (84.9)

- (1) Primarily reflects favorable prior accident year loss reserve development related to Typhoon Hagibis in the 2019 accident year and wildfires in California in the 2017 and 2018 accident years, partially offset by unfavorable prior accident year loss reserve development related to Hurricane Irma in the 2017 accident year and Typhoon Faxai in the 2019 accident year.
- (2) Primarily reflects favorable prior accident year loss reserve development related to wildfires in California in the 2018 accident year, partially offset by unfavorable prior accident year loss reserve development related to Typhoon Jebi in the 2018 accident year and Hurricane Irma in 2017 accident year.
- (3) Primarily reflects favorable prior accident year loss reserve development related to Hurricane Harvey in the 2017 accident year and catastrophes in the 2016 accident year, partially offset by unfavorable prior accident year loss reserve development related to Hurricanes Maria and Irma in the 2017 accident year.
- (4) Primarily reflects favorable prior accident year loss reserve development in the 2017 accident year.
- (5) Primarily reflects favorable prior accident year loss reserve development in the 2016 and 2017 accident years, partially offset by unfavorable prior accident year loss reserve development in the 2018 accident year.
- (6) Primarily reflects favorable prior accident year loss reserve development in the 2015 and 2016 accident years, partially offset by unfavorable prior accident year loss reserve development in the 2017 accident year.

The favorable prior accident year loss reserve development in 2020, 2019 and 2018 reflects favorable loss emergence compared with loss emergence patterns assumed in earlier periods. The favorable prior accident year loss reserve development in 2020 did not impact assumptions used in estimating TransRe's loss and LAE liabilities for business earned in 2020.

Casualty & other. The increase in net loss and LAE in 2020 from 2019 primarily reflects higher catastrophe losses and, to a lesser extent, the impact of higher net premiums earned. Pandemic-related catastrophe losses total \$105.4 million in 2020. Catastrophe losses also include \$3.7 million from Hurricane Laura, \$1.1 million from Hurricane Sally and \$5.1 million from other catastrophes. In 2019, catastrophe losses include \$3.6 million related to Typhoon Hagibis, \$2.9 million related to Hurricane Dorian and \$0.9 million related to other catastrophes. Catastrophe losses in 2019 generally related to the marine and nontraditional lines of business.

The increase in net loss and LAE in 2019 from 2018 primarily reflects the impact of higher net premiums earned and, to a lesser extent, less favorable prior accident year loss reserve development, partially offset by lower casualty-related catastrophe losses. Catastrophe losses in 2019 are as discussed above. Catastrophe losses in 2018 include \$4.6 million related to Hurricane Florence, \$3.4 million related to Hurricane Michael, \$3.1 million related to wildfires in California and \$4.0 million related to Typhoon Jebi.

Net loss and LAE in 2020, 2019 and 2018 include (favorable) unfavorable prior accident year loss reserve development as presented in the table below:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions)		
Malpractice Treaties ⁽¹⁾	\$ —	\$ (1.4)	\$ (3.4)
Catastrophe events	(5.9)	(4.4)	(6.7)
Other	(124.1) (2)	(143.8) (3)	(171.1) (4)
Total	\$ (130.0)	\$ (149.6)	\$ (181.2)

- (1) Represents certain medical malpractice treaties pursuant to which the increased underwriting profits created by the favorable prior accident year loss reserve development are largely retained by the cedants. As a result, the favorable prior accident year loss reserve development is largely offset by an increase in profit commission expense incurred when such favorable prior accident year loss reserve development occurs.
- (2) Primarily reflects favorable prior accident year loss reserve development in the longer-tailed lines of business in the 2014 and earlier accident years and in the shorter-tailed lines of business in the 2017 accident year, partially offset by unfavorable prior accident year loss reserve development in the longer-tailed lines of business in the 2016 to 2018 accident years.
- (3) Primarily reflects favorable prior accident year loss reserve development in the longer-tailed casualty lines of business in the 2014 and prior accident years and, to a lesser extent, shorter-tailed lines of business in the 2014 and prior accident years, partially offset by unfavorable prior accident year loss reserve development in the marine and aviation lines of business in the 2018 accident year.

- (4) Primarily reflects favorable prior accident year loss reserve development in the longer-tailed casualty lines of business in the 2002 through 2010 accident years and in the shorter-tailed casualty lines of business (specifically, ocean marine, automobile liability and accident & health) in the 2017 accident year, partially offset by unfavorable prior accident year loss reserve development in the professional liability lines of business in the 2015 accident year.

The favorable prior accident year loss reserve development in 2020, 2019 and 2018 reflects favorable loss emergence compared with loss emergence patterns assumed in earlier periods. The favorable prior accident year loss reserve development in 2020 did not impact assumptions used in estimating TransRe's loss and LAE liabilities for business earned in 2020.

Reinsurance Segment: Commissions, brokerage and other underwriting expenses. The following table presents commissions, brokerage and other underwriting expenses for the reinsurance segment:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Property					
Commissions, brokerage and other underwriting expenses	\$ 424.2	\$ 424.2	\$ 384.9	(—%)	10.2%
Expense ratio	30.7%	33.1%	32.7%		
Casualty & other					
Commissions, brokerage and other underwriting expenses	\$ 1,000.8	\$ 982.6	\$ 897.4	1.9%	9.5%
Expense ratio	30.7%	32.2%	32.5%		
Total					
Commissions, brokerage and other underwriting expenses	\$ 1,425.0	\$ 1,406.8	\$ 1,282.3	1.3%	9.7%
Expense ratio	30.7%	32.5%	32.6%		

Property. Commissions, brokerage and other underwriting expenses in 2020 approximated those from 2019, primarily reflecting lower overall commission rates, lower annual incentive compensation accruals and a Pandemic-driven reduction in travel and entertainment costs offset by the impact of higher net premiums earned, as discussed above. The increase in commissions, brokerage and other underwriting expenses in 2019 from 2018 primarily reflects the impact of higher net premiums earned, higher overall commission rates due primarily to a change in the mix of business and higher overhead expenses.

Casualty & other. The increase in commissions, brokerage and other underwriting expenses in 2020 from 2019 primarily reflects the impact of higher net premiums earned, as discussed above, partially offset by lower overall commission rates, lower annual incentive compensation accruals and a Pandemic-driven reduction in travel and entertainment costs. The increase in commissions, brokerage and other underwriting expenses in 2019 from 2018 primarily reflects the impact of higher net premiums earned and, to a lesser extent, higher overhead costs, partially offset by lower overall commission rates due primarily to a change in the mix of business.

Reinsurance Segment: Underwriting profit. The following table presents our underwriting (loss) profit for the reinsurance segment:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
(\$ in millions)					
Property					
Underwriting loss	\$ (175.1)	\$ (86.7)	\$ (275.4)	102.0%	(68.5%)
Combined ratio	112.7%	106.7%	123.4%		
Casualty & other					
Underwriting profit	\$ 7.9	\$ 45.8	\$ 62.8	(82.8%)	(27.1%)
Combined ratio	99.8%	98.4%	97.7%		
Total					
Underwriting (loss)	\$ (167.2)	\$ (40.9)	\$ (212.6)	308.8%	(80.8%)
Combined ratio	103.6%	100.9%	105.4%		

Property. The increase in underwriting loss in 2020 from 2019 primarily reflects significantly higher catastrophe losses, which include losses related to the Pandemic, as discussed above. The decrease in underwriting loss in 2019 from 2018 primarily reflects lower catastrophe losses, as discussed above.

Casualty & other. The decrease in underwriting profit in 2020 from 2019 primarily reflects casualty-related Pandemic catastrophe losses, as discussed above. The decrease in underwriting profit in 2019 from 2018 primarily reflects less favorable prior accident year loss reserve development, partially offset by the impact of higher net premiums earned, all as discussed above.

Insurance Segment Underwriting Results

The insurance segment is composed of AIHL's RSUI and CapSpecialty operating subsidiaries. RSUI also writes a modest amount of assumed reinsurance business, which is included in the insurance segment. For a more detailed description of our insurance segment, see Part I, Item 1, "Business—Segment Information—Insurance Segment" of this Form 10-K.

The following tables present the underwriting results of the insurance segment:

Year Ended December 31, 2020	RSUI	CapSpecialty (\$ in millions)	Total
Gross premiums written	\$ 1,714.4	\$ 411.3	\$ 2,125.7
Net premiums written	1,124.8	374.6	1,499.4
Net premiums earned	1,008.8	346.7	1,355.5
Net loss and LAE:			
Current year (excluding catastrophe losses)	520.8	209.8	730.6
Current year catastrophe losses	230.4	5.1	235.5
Prior years	(12.8)	(1.1)	(13.9)
Total net loss and LAE	738.4	213.8	952.2
Commissions, brokerage and other underwriting expenses	226.1	138.7	364.8
Underwriting profit (loss)(1)	<u>\$ 44.3</u>	<u>\$ (5.8)</u>	<u>\$ 38.5</u>
Loss ratio(2):			
Current year (excluding catastrophe losses)	51.7%	60.5%	53.9%
Current year catastrophe losses	22.8%	1.5%	17.4%
Prior years	(1.3%)	(0.3%)	(1.0%)
Total net loss and LAE	73.2%	61.7%	70.3%
Expense ratio(3)	22.4%	40.0%	26.9%
Combined ratio(4)	<u>95.6%</u>	<u>101.7%</u>	<u>97.2%</u>
Year Ended December 31, 2019	RSUI	CapSpecialty (\$ in millions)	Total
Gross premiums written	\$ 1,366.6	\$ 371.8	\$ 1,738.4
Net premiums written	912.0	344.7	1,256.7
Net premiums earned	824.2	326.9	1,151.1
Net loss and LAE:			
Current year (excluding catastrophe losses)	425.2	189.9	615.1
Current year catastrophe losses	96.0	3.1	99.1
Prior years	(17.5)	28.6	11.1
Total net loss and LAE	503.7	221.6	725.3
Commissions, brokerage and other underwriting expenses	219.2	132.7	351.9
Underwriting profit (loss)(1)	<u>\$ 101.3</u>	<u>\$ (27.4)</u>	<u>\$ 73.9</u>
Loss ratio(2):			
Current year (excluding catastrophe losses)	51.6%	58.2%	53.4%
Current year catastrophe losses	11.6%	0.9%	8.6%
Prior years	(2.1%)	8.7%	1.0%
Total net loss and LAE	61.1%	67.8%	63.0%
Expense ratio(3)	26.6%	40.6%	30.6%
Combined ratio(4)	<u>87.7%</u>	<u>108.4%</u>	<u>93.6%</u>

Year Ended December 31, 2018	RSUI	CapSpecialty (\$ in millions)	Total
Gross premiums written	\$ 1,142.0	\$ 328.8	\$ 1,470.8
Net premiums written	773.3	306.0	1,079.3
Net premiums earned	747.3	289.9	1,037.2
Net loss and LAE:			
Current year (excluding catastrophe losses)	395.0	161.4	556.4
Current year catastrophe losses	154.9	2.7	157.6
Prior years	(58.7)	(4.2)	(62.9)
Total net loss and LAE	491.2	159.9	651.1
Commissions, brokerage and other underwriting expenses	211.9	123.1	335.0
Underwriting profit ⁽¹⁾	<u>\$ 44.2</u>	<u>\$ 6.9</u>	<u>\$ 51.1</u>
Loss ratio ⁽²⁾ :			
Current year (excluding catastrophe losses)	52.9%	55.7%	53.6%
Current year catastrophe losses	20.7%	0.9%	15.3%
Prior years	(7.9%)	(1.4%)	(6.1%)
Total net loss and LAE	65.7%	55.2%	62.8%
Expense ratio ⁽³⁾	28.4%	42.5%	32.3%
Combined ratio ⁽⁴⁾	<u>94.1%</u>	<u>97.7%</u>	<u>95.1%</u>

- (1) Underwriting profit represents net premiums earned less net loss and LAE and commissions, brokerage and other underwriting expenses, all as determined in accordance with GAAP, and does not include net investment income, change in the fair value of equity securities, net realized capital gains, change in allowance for credit losses on available for sale securities, noninsurance revenue, other operating expenses, corporate administration, amortization of intangible assets and interest expense. Underwriting profit is a non-GAAP financial measure and does not replace earnings before income taxes determined in accordance with GAAP as a measure of profitability. See “Comment on Non-GAAP Financial Measures” herein for additional detail on the presentation of our results of operations.
- (2) The loss ratio is derived by dividing the amount of net loss and LAE by net premiums earned, all as determined in accordance with GAAP.
- (3) The expense ratio is derived by dividing the amount of commissions, brokerage and other underwriting expenses by net premiums earned, all as determined in accordance with GAAP.
- (4) The combined ratio is the sum of the loss ratio and the expense ratio, all as determined in accordance with GAAP. The combined ratio represents the percentage of each premium dollar a reinsurance or an insurance company has to spend on net loss and LAE, and commissions, brokerage and other underwriting expenses.

Insurance Segment: Premiums. The following table presents premiums for the insurance segment:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
RSUI					
Premiums written:					
Gross premiums written	\$ 1,714.4	\$ 1,366.6	\$ 1,142.0	25.5%	19.7%
Net premiums written	1,124.8	912.0	773.3	23.3%	17.9%
Net premiums earned	1,008.8	824.2	747.3	22.4%	10.3%
CapSpecialty					
Premiums written:					
Gross premiums written	\$ 411.3	\$ 371.8	\$ 328.8	10.6%	13.1%
Net premiums written	374.6	344.7	306.0	8.7%	12.6%
Net premiums earned	346.7	326.9	289.9	6.1%	12.8%
Total					
Premiums written:					
Gross premiums written	\$ 2,125.7	\$ 1,738.4	\$ 1,470.8	22.3%	18.2%
Net premiums written	1,499.4	1,256.7	1,079.3	19.3%	16.4%
Net premiums earned	1,355.5	1,151.1	1,037.2	17.8%	11.0%

RSUI. The increase in gross premiums written in 2020 from 2019 primarily reflects growth in most lines of business due to increases in business opportunities, higher rates and improved general market conditions, particularly in the property, directors' and officers' liability and umbrella/excess lines of business. The increase in gross premiums written in 2019 from 2018 primarily reflects growth in most lines of business due to increases in business opportunities, higher rates and improved general market conditions, particularly in the property lines of business and, to a lesser extent, the directors' and officers' liability lines of business.

The increases in net premiums earned in 2020 from 2019 and in 2019 from 2018 primarily reflect increases in gross premiums written in recent quarters, partially offset by higher ceded premiums earned related to the growth in the heavily-reinsured property lines of business.

CapSpecialty. The increase in gross premiums written in 2020 from 2019 primarily reflects growth in the professional liability and healthcare lines of business due to increases in business opportunities and higher rates, CapSpecialty's expanded product offerings and the impact of CapSpecialty's purchases of certain renewal rights in September 2019 and May 2020, partially offset by a curtailment of certain unprofitable broker relationships.

The increase in gross premiums written in 2019 from 2018 primarily reflects growth in the healthcare, professional liability, specialty casualty and surety lines of business due to increases in business opportunities and CapSpecialty's expanded product offerings, and the impact of CapSpecialty's February 2018 purchase of certain renewal rights to a small environmental liability block of business. To a lesser extent, the increase in gross premiums written in 2019 from 2018 also reflects the impact of CapSpecialty's September 2019 purchase of certain renewal rights associated with a small lawyer's professional liability block of business.

The increases in net premiums earned in 2020 from 2019 and in 2019 from 2018 primarily reflect increases in gross premiums written.

Insurance Segment: Net loss and LAE. The following table presents net loss and LAE for the insurance segment:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
RSUI					
Net loss and LAE:					
Current year (excluding catastrophe losses)	\$ 520.8	\$ 425.2	\$ 395.0	22.5%	7.6%
Current year catastrophe losses	230.4	96.0	154.9	140.0%	(38.0%)
Prior years	(12.8)	(17.5)	(58.7)	(26.9%)	(70.2%)
Total net loss and LAE	<u>\$ 738.4</u>	<u>\$ 503.7</u>	<u>\$ 491.2</u>	46.6%	2.5%
Loss ratio:					
Current year (excluding catastrophe losses)	51.7%	51.6%	52.9%		
Current year catastrophe losses	22.8%	11.6%	20.7%		
Prior years	(1.3%)	(2.1%)	(7.9%)		
Total net loss and LAE	<u>73.2%</u>	<u>61.1%</u>	<u>65.7%</u>		
CapSpecialty					
Net loss and LAE:					
Current year (excluding catastrophe losses)	\$ 209.8	\$ 189.9	\$ 161.4	10.5%	17.7%
Current year catastrophe losses	5.1	3.1	2.7	64.5%	14.8%
Prior years	(1.1)	28.6	(4.2)	(103.8%)	(781.0%)
Total net loss and LAE	<u>\$ 213.8</u>	<u>\$ 221.6</u>	<u>\$ 159.9</u>	(3.5%)	38.6%
Loss ratio:					
Current year (excluding catastrophe losses)	60.5%	58.2%	55.7%		
Current year catastrophe losses	1.5%	0.9%	0.9%		
Prior years	(0.3%)	8.7%	(1.4%)		
Total net loss and LAE	<u>61.7%</u>	<u>67.8%</u>	<u>55.2%</u>		
Total					
Net loss and LAE:					
Current year (excluding catastrophe losses)	\$ 730.6	\$ 615.1	\$ 556.4	18.8%	10.5%
Current year catastrophe losses	235.5	99.1	157.6	137.6%	(37.1%)
Prior years	(13.9)	11.1	(62.9)	(225.2%)	(117.6%)
Total net loss and LAE	<u>\$ 952.2</u>	<u>\$ 725.3</u>	<u>\$ 651.1</u>	31.3%	11.4%
Loss ratio:					
Current year (excluding catastrophe losses)	53.9%	53.4%	53.6%		
Current year catastrophe losses	17.4%	8.6%	15.3%		
Prior years	(1.0%)	1.0%	(6.1%)		
Total net loss and LAE	<u>70.3%</u>	<u>63.0%</u>	<u>62.8%</u>		

RSUI. The increase in net loss and LAE in 2020 from 2019 primarily reflects higher catastrophe losses and the impact of higher net premiums earned. The increase in net loss and LAE in 2019 from 2018 primarily reflects lower favorable prior accident year loss reserve development and the impact of higher net premiums earned, partially offset by lower catastrophe losses.

Catastrophe losses in 2020 include \$69.9 million from Hurricane Sally, \$50.6 million from Hurricane Laura and \$20.3 million of Pandemic losses, which primarily relate to business interruption and related estimated legal expenses. Catastrophe losses in 2020 also include losses from severe weather and flooding in the Southeastern U.S. in the spring of 2020, which included a tornado in Tennessee, as well as Hurricane Zeta and Hurricane Delta in October 2020. Catastrophe losses in 2019 primarily consist of severe weather and flooding in the Midwestern and Southwestern U.S. and, to a lesser extent, typhoons in Japan. Catastrophe losses in 2018 include \$55.1 million related to Hurricane Michael, \$33.8 million from Hurricane Florence and \$17.4 million related to wildfires in California, as well as losses related to flooding and severe weather in the Northeastern U.S. and California and typhoons in Japan.

Net loss and LAE in 2020, 2019 and 2018 include (favorable) unfavorable prior accident year loss reserve development as presented in the table below:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions)		
Casualty	\$ 1.8 (1)	\$ (16.3) (2)	\$ (27.8) (3)
Property and other	(14.6) (4)	(1.2) (5)	(30.9) (6)
Total	<u>\$ (12.8)</u>	<u>\$ (17.5)</u>	<u>\$ (58.7)</u>

- (1) Primarily reflects unfavorable prior accident year loss reserve development in the professional liability lines of business in the 2017 through 2019 accident years, partially offset by favorable prior accident year loss reserve development in the directors' and officers' liability and umbrella/excess lines of business in the 2011 through 2015 accident years.
- (2) Primarily reflects favorable prior accident year loss reserve development in the directors' and officers' liability and umbrella/excess lines of business in the 2011 through 2015 accident years, partially offset by unfavorable prior accident year loss reserve development in the professional liability lines of business in the 2016 through 2018 accident years.
- (3) Primarily reflects favorable prior accident year loss reserve development in the umbrella/excess lines of business in the 2005 through 2012 accident years, partially offset by unfavorable prior accident year loss reserve development in the directors' and officers' liability lines of business in the 2009, 2012 and 2016 accident years.
- (4) Primarily reflects favorable prior accident year loss reserve development related to U.S. catastrophe losses in the 2018 accident year and, to a lesser extent, favorable prior accident year loss reserve development related to the assumed property reinsurance lines of business from catastrophe losses in the 2019 and 2018 accident years.
- (5) Primarily reflects favorable prior accident year loss reserve development related to Superstorm Sandy in the 2012 accident year, Hurricanes Florence and Michael in the 2018 accident year and Hurricanes Harvey and Maria in the 2017 accident year, partially offset by assumed property reinsurance lines of business from both catastrophe and non-catastrophe losses in the 2018 accident year.
- (6) Primarily reflects favorable prior accident year loss reserve development related to Hurricane Irma in the 2017 accident year and, to a lesser extent, Hurricane Matthew in the 2016 accident year, as well as various other losses not classified as catastrophes in recent accident years.

The favorable prior accident year loss reserve development in 2020, 2019 and 2018 reflects favorable loss emergence compared with loss emergence patterns assumed in earlier periods. The favorable prior accident year loss reserve development in 2020 did not impact assumptions used in estimating RSUI's loss and LAE liabilities for business earned in 2020.

CapSpecialty. The decrease in net loss and LAE in 2020 from 2019 primarily reflects substantial unfavorable prior accident year loss reserve development in 2019, partially offset by the impact of higher net premiums earned, higher current accident year losses and \$3.1 million of Pandemic-related catastrophe losses. The increase in net loss and LAE in 2019 from 2018 primarily reflects unfavorable prior accident year loss reserve development in 2019, compared with favorable prior accident year loss reserve development in 2018, the impact of higher net premiums earned and, to a lesser extent, an increase in initial loss estimates in the current accident year.

Net loss and LAE in 2020, 2019 and 2018 include (favorable) unfavorable prior accident year loss reserve development as presented in the table below:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions)		
Ongoing lines of business	\$ (2.0) (1)	\$ 26.1 (2)	\$ (4.2) (3)
Terminated Program ⁽⁴⁾	0.9	3.0	—
Asbestos-related illness and environmental impairment liability	—	(0.5)	—
Total	<u>\$ (1.1)</u>	<u>\$ 28.6</u>	<u>\$ (4.2)</u>

- (1) Primarily reflects favorable prior accident year development related to the surety lines of business from recent accident years.
- (2) Primarily reflects unfavorable prior accident loss reserve development related to the professional liability and other casualty lines of business in the 2015 through 2018 accident years.
- (3) Primarily reflects favorable prior accident year loss reserve development in the surety lines of business in the 2016 and 2017 accident years.
- (4) Represents certain specialty lines of business written through a program administrator in connection with a terminated program in the 2010 and 2009 accident years and reflects favorable loss emergence compared with loss emergence patterns assumed in earlier periods for such business.

The favorable prior accident year loss reserve development in 2020 reflects favorable loss emergence compared with loss emergence patterns assumed in earlier periods. The favorable prior accident year loss reserve development in 2020 did not impact the assumptions used in estimating CapSpecialty's loss and LAE liabilities for business earned in 2020.

Insurance Segment: Commissions, brokerage and other underwriting expenses. The following table presents commissions, brokerage and other underwriting expenses for the insurance segment:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
RSUI					
Commissions, brokerage and other underwriting expenses	\$ 226.1	\$ 219.2	\$ 211.9	3.1%	3.4%
Expense ratio	22.4%	26.6%	28.4%		
CapSpecialty					
Commissions, brokerage and other underwriting expenses	\$ 138.7	\$ 132.7	\$ 123.1	4.5%	7.8%
Expense ratio	40.0%	40.6%	42.5%		
Total					
Commissions, brokerage and other underwriting expenses	\$ 364.8	\$ 351.9	\$ 335.0	3.7%	5.0%
Expense ratio	26.9%	30.6%	32.3%		

RSUI. The increase in commissions, brokerage and other underwriting expenses in 2020 from 2019 primarily reflects the impact of higher net premiums earned, as discussed above, partially offset by lower overall commission rates and a Pandemic-driven reduction in travel and entertainment costs. The increase in commissions, brokerage and other underwriting expenses in 2019 from 2018 primarily reflects the impact of higher net premiums earned, partially offset by slightly lower overall commission rates due primarily to a change in the mix of business.

CapSpecialty. The increases in commissions, brokerage and other underwriting expenses in 2020 from 2019 primarily reflect the impact of higher net premiums earned, higher overall commission rates and investments in technology. The increase in commissions, brokerage and other underwriting expenses in 2019 from 2018 primarily reflects the impact of higher net premiums earned, partially offset by one-time acquisition expenses incurred in 2018 from CapSpecialty's purchase of certain renewal rights associated with a small environmental liability block of business and lower short-term incentive compensation expense accruals.

Insurance Segment: Underwriting profit. The following table presents our underwriting profit (loss) for the insurance segment:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
RSUI					
Underwriting profit	\$ 44.3	\$ 101.3	\$ 44.2	(56.3%)	129.2%
Combined ratio	95.6%	87.7%	94.1%		
CapSpecialty					
Underwriting (loss) profit	\$ (5.8)	\$ (27.4)	\$ 6.9	(78.8%)	(497.1%)
Combined ratio	101.7%	108.4%	97.7%		
Total					
Underwriting profit	\$ 38.5	\$ 73.9	\$ 51.1	(47.9%)	44.6%
Combined ratio	97.2%	93.6%	95.1%		

RSUI. The decrease in underwriting profit in 2020 from 2019 primarily reflects higher catastrophe losses, as discussed above. The increase in underwriting profit in 2019 from 2018 primarily reflects lower catastrophe losses and the impact of higher net premiums earned, partially offset by lower favorable prior accident year loss reserve development, all as discussed above.

CapSpecialty. The decrease in underwriting loss in 2020 from 2019 primarily reflects substantial unfavorable prior accident year loss reserve development in 2019, partially offset by higher current accident year losses, Pandemic-related losses and higher commissions, brokerage and other underwriting expenses, all as discussed above. The underwriting loss in 2019 compared with the underwriting profit in 2018 primarily reflects unfavorable prior accident year loss reserve development in 2019, compared with favorable prior accident year loss reserve development in 2018, as discussed above.

Investment Results for the Reinsurance and Insurance Segments

The following table presents the investment results for our reinsurance and insurance segments:

	Year Ended December 31,			Percent Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
	(\$ in millions)				
Net investment income	\$ 465.7	\$ 533.2	\$ 480.9	(12.7%)	10.9%
Change in the fair value of equity securities	(55.8)	705.8	(184.2)	(107.9%)	(483.2%)
Net realized capital gains	37.1	6.0	31.6	518.3%	(81.0%)
Change in allowance for credit losses on available for sale securities	(8.0)	(19.7)	(1.3)	(59.4%)	1,415.4%

Net Investment Income. The decrease in net investment income in 2020 from 2019 primarily reflects lower interest income and, to a lesser extent, lower dividend income. Lower interest income reflects the impact of low reinvestment yields on debt securities and lower yields on short term investments and floating-rate debt securities. Lower dividend income reflects reductions in our equity security portfolio during most of 2020.

The increase in net investment income in 2019 from 2018 primarily reflects higher interest income, partially offset by lower dividend income. The increase in interest income and the decrease in dividend income primarily relate to a reallocation of a significant portion of our investment portfolio from equity securities to debt securities in the first quarter of 2019.

Change in the fair value of equity securities. The change in the fair value of equity securities in 2020 reflects depreciation in the value of our equity securities portfolio due primarily to the impact of the Pandemic and related economic and financial market disruptions in the spring of 2020, net of a subsequent appreciation on a smaller portfolio from the improved conditions. The change in the fair value of equity securities in 2019 reflects appreciation in the value of our equity securities portfolio, primarily from our holdings in the technology, industrial and financial sectors. The change in the fair value of equity securities in 2018 reflects depreciation in the value of our equity securities portfolio, primarily from our holdings in the energy, consumer, communications and materials sectors, partially offset by appreciation in the value of our equity holdings in the information technology sector.

Net Realized Capital Gains. The increase in net realized gains in 2020 from 2019 primarily reflects higher realized gains from the sale of our debt securities and the \$38.4 million decline in value of the Put Option in 2019.

Net realized capital gains in 2019 primarily reflect gains on the sale of debt securities, partially offset by the \$38.4 million decline in value of the Put Option in 2019. Net realized capital gains in 2018 primarily reflect a \$45.7 million gain on AIHL's conversion of its limited partnership interests in certain subsidiaries of Ares into Ares common units in 2018, partially offset by losses on the sale of debt securities.

Change in allowance for credit losses on available for sale securities. The change in allowance for credit losses on AFS securities in 2020 reflects \$8.0 million of unrealized losses on debt securities, primarily related to the energy sector and lower-quality corporate bonds in other sectors due to a significant decline in their fair value relative to their amortized cost in the spring of 2020, net of a subsequent reduction of the allowance for credit losses on AFS securities arising from the improved bond market conditions and bond sales later in 2020.

The change in allowance for credit losses on AFS securities in 2019 reflects \$19.7 million of unrealized losses on debt securities, primarily in the energy sector, primarily due to the deterioration of creditworthiness of the issuers. In addition, certain foreign bonds were impaired due to a significant decline in fair value.

The change in allowance for credit losses on AFS securities in 2018 reflects \$1.3 million of unrealized losses on debt securities, primarily in the energy and industrial sectors, primarily due to the deterioration of creditworthiness of the issuers.

See Note 4 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional detail on credit losses, credit quality and gross unrealized investment losses for debt securities as of and for the year ended December 31, 2020.

Alleghany Capital Segment Results

The Alleghany Capital segment consists of: (i) industrial operations conducted through PCT, Kentucky Trailer, W&W|AFCO Steel and Wilbert beginning April 1, 2020; (ii) non-industrial operations conducted through IPS, Jazwares and Concord beginning October 1, 2018 (the date on which Alleghany Capital acquired approximately 85 percent of the equity thereof); and (iii) corporate operations at the Alleghany Capital level, which include certain hotel development projects. On April 1, 2020, Alleghany Capital acquired an additional approximately 55 percent of Wilbert it previously did not own, bringing its equity interest in Wilbert to approximately 100 percent, and as of that date, the results of Wilbert were included in our consolidated results. Prior to April 1, 2020, Wilbert was accounted for under the equity method of accounting and was included in other assets.

The following tables present the results of the Alleghany Capital segment for 2020, 2019 and 2018:

Year Ended December 31, 2020	Industrial	Non-industrial	Corp. & other	Total
	(\$ in millions)			
Noninsurance revenue ⁽¹⁾	\$ 1,220.9	\$ 1,256.5	\$ 0.1	\$ 2,477.5
Net investment income	1.9	—	—	1.9
Net realized capital gains	4.3	(0.1)	31.3	35.5
Total revenues	\$ 1,227.1	\$ 1,256.4	\$ 31.4	\$ 2,514.9
Other operating expenses ⁽¹⁾	1,145.7	1,151.7	12.6	2,310.0
Amortization of intangible assets	15.4	28.0	—	43.4
Interest expense	8.7	7.2	(0.4)	15.5
Earnings before income taxes	\$ 57.3	\$ 69.5	\$ 19.2	\$ 146.0
Earnings before income taxes	\$ 57.3	\$ 69.5	\$ 19.2	\$ 146.0
Less: net realized capital gains	(4.3)	0.1	(31.3)	(35.5)
Add: amortization of intangible assets	15.4	28.0	—	43.4
Adjusted earnings (losses) before income taxes ⁽²⁾	\$ 68.4	\$ 97.6	\$ (12.1)	\$ 153.9
Year Ended December 31, 2019	Industrial	Non-industrial	Corp. & other	Total
	(\$ in millions)			
Noninsurance revenue ⁽¹⁾	\$ 1,105.6	\$ 1,183.7	\$ —	\$ 2,289.3
Net investment income	6.1	(0.2)	0.4	6.3
Net realized capital gains	1.3	(0.3)	—	1.0
Total revenues	\$ 1,113.0	\$ 1,183.2	\$ 0.4	\$ 2,296.6
Other operating expenses ⁽¹⁾	1,038.0	1,076.4	18.5	2,132.9
Amortization of intangible assets	12.5	20.0	—	32.5
Interest expense	11.6	8.1	0.4	20.1
Earnings (losses) before income taxes	\$ 50.9	\$ 78.7	\$ (18.5)	\$ 111.1
Earnings (losses) before income taxes	\$ 50.9	\$ 78.7	\$ (18.5)	\$ 111.1
Less: net realized capital gains	(1.3)	0.3	—	(1.0)
Add: amortization of intangible assets	12.5	20.0	—	32.5
Adjusted earnings (losses) before income taxes ⁽²⁾	\$ 62.1	\$ 99.0	\$ (18.5)	\$ 142.6

Year Ended December 31, 2018	Industrial	Non-industrial	Corp. & other	Total
	(\$ in millions)			
Noninsurance revenue ⁽¹⁾	\$ 917.1	\$ 657.5	\$ —	\$ 1,574.6
Net investment income	4.7	0.1	—	4.8
Net realized capital gains	1.2	(0.3)	—	0.9
Total revenues	\$ 923.0	\$ 657.3	\$ —	\$ 1,580.3
Other operating expenses ⁽¹⁾	880.8	595.0	9.8	1,485.6
Amortization of intangible assets	9.8	14.6	—	24.4
Interest expense	7.4	2.9	0.2	10.5
Earnings (losses) before income taxes	\$ 25.0	\$ 44.8	\$ (10.0)	\$ 59.8
Earnings (losses) before income taxes	\$ 25.0	\$ 44.8	\$ (10.0)	\$ 59.8
Less: net realized capital gains	(1.2)	0.3	—	(0.9)
Add: amortization of intangible assets	9.8	14.6	—	24.4
Adjusted earnings (losses) before income taxes ⁽²⁾	\$ 33.6	\$ 59.7	\$ (10.0)	\$ 83.3

- (1) For industrial and non-industrial operations: (i) noninsurance revenue consists of the sale of manufactured goods and services; and (ii) other operating expenses consist of the cost of goods and services sold and selling, general and administrative expenses. Other operating expenses also include finders' fees, legal and accounting costs and other transaction-related expenses of \$5.0 million, \$4.1 million and \$7.7 million for 2020, 2019 and 2018, respectively.
- (2) Adjusted earnings before income taxes is a non-GAAP financial measure and does not replace earnings before income taxes determined in accordance with GAAP as a measure of profitability. See "Comment on Non-GAAP Financial Measures" herein for additional detail on the presentation of our results of operations. Adjusted earnings before income taxes represents noninsurance revenue and net investment income less other operating expenses and interest expense and does not include: (i) amortization of intangible assets; (ii) change in the fair value of equity securities; (iii) net realized capital gains; (iv) change in allowance for credit losses on available for sale securities; and (v) income taxes.

The changes in Alleghany Capital's equity for 2020, 2019 and 2018 are presented in the table below:

	Industrial	Non-industrial	Corp. & other	Total ⁽¹⁾
	(\$ in millions)			
Equity as of December 31, 2017	\$ 363.6	\$ 331.3	\$ (7.7)	\$ 687.2
Earnings (losses) before income taxes	25.0	44.8	(10.0)	59.8
Income taxes ⁽¹⁾	(1.7)	(2.2)	(6.7)	(10.6)
Net earnings attributable to noncontrolling interests ⁽²⁾	(3.2)	(11.9)	—	(15.1)
Capital contributions (returns of capital) and other ⁽³⁾	78.8	81.3	(19.8)	140.3
Equity as of December 31, 2018	462.5	443.3	(44.2)	861.6
Earnings (losses) before income taxes	50.9	78.7	(18.5)	111.1
Income taxes ⁽¹⁾	(2.8)	(4.0)	(18.0)	(24.8)
Net earnings attributable to noncontrolling interests ⁽²⁾	(7.7)	(24.7)	—	(32.4)
Capital contributions (returns of capital) and other ⁽³⁾	20.4	(82.7)	47.7	(14.6)
Equity as of December 31, 2019	523.3	410.6	(33.0)	900.9
Earnings before income taxes	57.3	69.5	19.2	146.0
Income taxes ⁽¹⁾	(7.2)	(3.3)	(12.1)	(22.6)
Net earnings attributable to noncontrolling interests ⁽²⁾	(5.9)	(19.2)	—	(25.1)
Capital contributions (returns of capital) and other ⁽³⁾	62.0	25.1	22.8	109.9
Equity as of December 31, 2020	\$ 629.5	\$ 482.7	\$ (3.1)	\$ 1,109.1

- (1) Federal income taxes for most Alleghany Capital subsidiaries are incurred at the Alleghany Capital corporate level. Estimated federal income tax (expense) benefit incurred at the Alleghany Capital corporate level attributable to industrial and non-industrial operations for 2020 was (\$11.4) million and (\$14.6) million, respectively, for 2019 was (\$10.5) million and (\$16.5) million, respectively, and for 2018 was (\$5.3) million and (\$9.4) million, respectively.
- (2) During 2020, the noncontrolling interests outstanding were approximately as follows: Kentucky Trailer - 23 percent; W&W/AFCO Steel - 20 percent; IPS - 15 percent; Jazwares - 24 percent; and Concord - 15 percent. Prior to April 1, 2019, the noncontrolling interests of PCT were approximately 11 percent. All noncontrolling interest holders of PCT have exercised their repurchase options and sold their ownership interests to PCT effective April 1, 2019.
- (3) For 2020, capital contributions primarily reflect funding provided by: (i) Alleghany Capital to PCT for its acquisition of a manufacturer of high-performance carbide end mills in March 2020; (ii) Alleghany Capital to Jazwares for its acquisition of Kelly Toy that closed on April 1, 2020; and (iii) Alleghany to Alleghany Capital for its purchase of an additional approximately 55 percent of Wilbert it previously did not own that closed on April 1, 2020. For 2019, capital contributions primarily reflect funding provided by Alleghany Capital to PCT for the acquisition of a consumable cutting tool manufacturer. For 2018, capital contributions primarily reflect funding provided by Alleghany to Alleghany Capital for the acquisition of Concord and funding provided by Alleghany Capital for the acquisition of Hirschfeld by W&W/AFCO Steel.

Noninsurance revenue. The increase in noninsurance revenue in 2020 from 2019 reflects higher industrial and non-industrial operations revenues. The increase in industrial noninsurance revenue in 2020 primarily reflects the impact of Wilbert's April 1, 2020 inclusion in our consolidated results, as discussed above, as well as Wilbert's revenue growth, partially offset by Pandemic-related project delays and customer site closures at W&W|AFCO Steel during 2020 and slower orders for industrial capital equipment and services at Kentucky Trailer.

The increase in non-industrial noninsurance revenue reflects higher sales at Jazwares, partially offset by lower noninsurance revenue at Concord, due to reduced management fee revenue from Pandemic-driven declines in hotel occupancy, and IPS, due to Pandemic-related project delays and customer site closures. The increase in Jazwares primarily reflects the impact of acquisitions of Kelly Toy in April 2020 and WCT in October 2019, partially offset by the acquisition of a major new video game license in the fourth quarter of 2018, which positively impacted sales in 2019 and Pandemic-related temporary shelter in place orders, disruptions to shipping schedules and store closures in 2020.

The increase in noninsurance revenue in 2019 from 2018 reflects increases in non-industrial and industrial operations. The increase in non-industrial noninsurance revenue reflects higher sales at IPS and Jazwares, as well as the acquisition of Concord. The higher sales at IPS are due to organic growth and the impact of an acquisition in May 2019. Higher sales at Jazwares are due primarily to the impact of a major new video game license in the fourth quarter of 2018 and the acquisition of WCT on October 1, 2019. The increase in industrial noninsurance revenue primarily reflects organic sales growth at W&W|AFCO Steel and its acquisition of Hirschfeld on February 7, 2018 and, to a lesser extent, the impact of Kentucky Trailer's acquisition of two manufacturers of aluminum feed transportation equipment in December 2018 and July 2019.

Net investment income. The decrease in net investment income in 2020 from 2019 primarily reflect a cessation of equity income from Wilbert upon Wilbert's April 1, 2020 inclusion in our consolidated results, as discussed above. The increase in net investment income in 2019 from 2018 primarily reflects Alleghany Capital's earnings from its investment in Wilbert, due to higher earnings at Wilbert.

Net realized capital gains. Net realized capital gains in 2020 include: (i) \$15.0 million on a partial settlement and remeasurement of fair value of certain outstanding contingent consideration liabilities by Alleghany Capital in connection with its 2018 acquisition of Concord; (ii) a \$16.3 million gain on April 1, 2020 in connection with Alleghany Capital's acquisition of an additional approximately 55 percent of Wilbert that it did not previously own, and the remeasurement of its pre-existing approximately 45 percent equity ownership to its estimated fair value; and (iii) a \$5.0 million gain from a reduction of certain contingent consideration liabilities at the PCT-level in connection with its acquisition of a provider of high-performance solid carbide end mills in June 2019.

Other operating expenses. The increase in other operating expenses in 2020 from 2019 primarily reflects an increase in costs related to higher revenues in industrial and non-industrial operations, as described above, and the cost of Pandemic-related safety measures undertaken in 2020. To a lesser extent, the increase in other operating expenses in 2020 reflected an increase in finders' fees, legal and accounting costs and other transaction-related expenses, partially offset by lower incentive compensation accruals in Alleghany Capital's corporate operations.

The increase in other operating expenses in 2019 from 2018 primarily reflects increases in non-industrial and industrial operations. The increase in non-industrial other operating expenses primarily reflects higher costs related to higher sales at IPS and Jazwares, as well as the impact of the acquisitions of Concord and WCT, partially offset by the impact of certain Toys "R" Us Inc. liquidation-related charges in early 2018. The increase in industrial other operating expenses primarily reflects higher costs related to higher sales at W&W|AFCO Steel, including the impact of W&W|AFCO Steel's acquisition of Hirschfeld in 2018, and, to a lesser extent, Kentucky Trailer due to higher sales, partially offset by the impact of certain facility consolidation activities at Kentucky Trailer in 2018. The increase in other operating expenses in 2019 from 2018 also relates, to a lesser extent, to higher employee costs, including incentive compensation, in Alleghany Capital's corporate operations.

Other operating expenses in 2020, 2019 and 2018 also reflect finders' fees, legal and accounting costs and other transaction-related expenses, primarily related to Alleghany Capital's April 1, 2020 acquisition of an additional approximately 55 percent of Wilbert it previously did not own, Jazwares' acquisition of Kelly Toy in April 2020 and WCT in October 2019, the acquisition by PCT of a consumable cutting tool manufacturer in June 2019, the acquisitions by Kentucky Trailer of two manufacturers of aluminum feed transportation equipment in December 2018 and July 2019, Alleghany Capital's acquisition of Concord in 2018 and W&W|AFCO Steel's acquisition of Hirschfeld in 2018. Finders' fees, legal and accounting costs and other transaction-related expenses were \$5.0 million, \$4.1 million and \$7.7 million for 2020, 2019 and 2018, respectively.

Amortization of intangible assets. The increase in amortization expense in 2020 from 2019 primarily reflects recent acquisitions by Jazwares and PCT, as well as the impact of Wilbert's April 1, 2020 inclusion in our consolidated results, as discussed above. The increase in amortization expense in 2019 from 2018 primarily reflects the Concord acquisition, Kentucky Trailer's acquisition of two manufacturers of aluminum feed transportation equipment in December 2018 and July 2019, PCT's acquisition of a consumable cutting tool manufacturer in June 2019, Jazwares' acquisition of WCT in October 2019 and IPS's acquisition in May 2019.

Interest expense. The decrease in interest expense in 2020 from 2019 primarily reflects the impact of lower overall interest rates on floating-rate borrowings, partially offset by the impact of Wilbert's April 1, 2020 inclusion in our consolidated results, as discussed above, and Jazwares acquisition of Kelly Toy. The increase in interest expense in 2019 from 2018 primarily reflects borrowings at Concord (primarily used to finance Alleghany Capital's acquisition of Concord), increases in debt related to the acquisition of WCT, as well as increased borrowings at other Alleghany Capital subsidiaries to support working capital needs and fund acquisitions made during 2018 and 2019.

Earnings (losses) before income taxes. The increase in earnings before income taxes in 2020 from 2019 primarily reflects net realized capital gains and lower incentive compensation accruals in Alleghany Capital's corporate operations and, to a lesser extent, an increase in industrial earnings before income taxes, partially offset by a decrease in non-industrial earnings before income taxes. Higher industrial earnings before income taxes in 2020 primarily reflects the impact of Wilbert's April 1, 2020 inclusion in our consolidated results and revenue growth, as discussed above and, to a lesser extent, higher margins at W&W/AFCO Steel, partially offset by the impact of lower sales and margins at Kentucky Trailer.

The decrease in non-industrial earnings before income taxes reflects the Pandemic-related impact on revenue and margins at Concord, partially offset by the impact of higher sales at Jazwares, all as discussed above.

The increase in earnings before income taxes in 2019 from 2018 primarily reflects increased earnings in the non-industrial and industrial operations. The increase in non-industrial earnings before income taxes primarily reflects the impact of higher sales at Jazwares (due in part to its acquisition of WCT) and, to a lesser extent, the acquisition of Concord and higher sales at IPS, all as discussed above. The increase in industrial earnings before income taxes primarily reflects higher sales and higher margins at W&W/AFCO Steel and, to a lesser extent, higher sales at Kentucky Trailer, all as discussed above.

Corporate Activities Results

The primary components of corporate activities are Alleghany Properties, activities at the Alleghany parent company and, prior to its December 31, 2020 sale, SORC. The following table presents the results for corporate activities:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions)		
Net premiums earned	\$ —	\$ —	\$ —
Net investment income	23.3	10.7	14.8
Change in the fair value of equity securities	(54.7)	3.9	(44.8)
Net realized capital gains	(69.5)	(13.5)	(35.7)
Change in allowance for credit losses on available for sale securities	—	—	—
Noninsurance revenue	8.7	12.5	47.4
Total revenues	(92.2)	13.6	(18.3)
Net loss and loss adjustment expenses	—	—	—
Commissions, brokerage and other underwriting expenses	—	—	—
Other operating expenses	15.7	27.3	33.9
Corporate administration	48.9	70.7	17.6
Amortization of intangible assets	—	—	—
Interest expense	45.7	52.8	53.1
(Losses) before income taxes	\$ (202.5)	\$ (137.2)	\$ (122.9)

Net investment income. The increase in net investment income in 2020 from 2019 primarily reflects higher partnership income. The decrease in net investment income in 2019 from 2018 primarily reflects lower dividend income resulting from a portfolio reallocation (as further described below) and, to a lesser extent, lower partnership income, partially offset by higher interest income.

Change in the fair value of equity securities. The change in the fair value of equity securities in 2020 reflects depreciation in the value of equity securities at the Alleghany parent company-level, primarily in the materials sector, and a significant depreciation due primarily to the impact of the Pandemic, as discussed above. In the first quarter of 2019, a substantial portion of our investment portfolio at the Alleghany parent company-level was reallocated from equity securities to debt securities. The change in the fair value of equity securities in 2019 reflects appreciation in the value of the equity securities held at the Alleghany parent company-level, primarily from holdings in the technology sector, prior to this reallocation. The change in the fair value of equity securities in 2018 reflects depreciation of the equity securities held at the Alleghany parent company-level, primarily from holdings in the energy sector.

Net realized capital losses. The net realized capital losses in 2020 primarily reflect \$76.0 million from the write-down of SORC oil field assets. In the first half of 2020, SORC's oil field assets were written down to estimated fair value, which primarily reflected a significant decline in oil prices, less costs to sell. In the second half of 2020, SORC's oil field assets were sold at values that approximated their reduced carrying values. SORC was sold on December 31, 2020.

The net realized capital losses in 2020 also include a \$7.1 million realized loss as a result of an early redemption of certain senior notes as of January 15, 2020. See Note 8(a) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on this early redemption. Net realized capital losses in 2019 primarily reflects a \$13.6 million loss from the December 2019 sale of a privately held investment accounted for under the equity method. Net realized capital losses in 2018 primarily reflect a \$35.4 million capital loss due to an impairment charge from the write-down of certain SORC assets arising from a decline in energy prices as of December 31, 2018.

Noninsurance revenue. The decrease in noninsurance revenue in 2020 from 2019 primarily reflects lower energy sales at SORC, due to a significant decline in oil prices and the impact of the sale of SORC's oil field assets in the second half of 2020, partially offset by higher property sales at Alleghany Properties. The decrease in noninsurance revenue in 2019 from 2018 primarily reflects lower property sales at Alleghany Properties. Noninsurance revenue in 2018 includes the sale in September 2018 of 68 acres of land located in Sacramento, California for approximately \$20 million.

Other operating expenses. The decrease in other operating expenses in 2020 from 2019 primarily reflect reduced costs at SORC, which were due primarily to the impact of the sale of SORC's oil field assets in the second half of 2020. The decrease in other operating expenses in 2019 from 2018 primarily reflects reduced costs at SORC and Alleghany Properties.

Corporate administration. The decrease in corporate administration expense in 2020 from 2019 reflects significantly lower Alleghany parent company long-term incentive compensation accruals due primarily to the impact of depreciation of Alleghany stock price and lower consolidated net earnings attributable to Alleghany stockholders, as discussed below. The decrease was partially offset by the \$13.6 million pre-tax impact of the termination and December 2020 payout of the Alleghany parent-level executive retirement plan (see Note 15(a) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional detail).

The increase in corporate administration expense in 2019 from 2018 reflects higher Alleghany parent company long-term incentive compensation accruals due primarily to the impact of appreciation in the value of our consolidated debt and equity securities portfolios in 2019, compared with depreciation in 2018 and Alleghany stock price appreciation.

Interest expense. The decrease in interest expense in 2020 from 2019 primarily reflects the impact of the early redemption of certain senior notes on January 15, 2020, partially offset by the issuance of certain other senior notes on May 18, 2020. See Note 8(a) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information. The slight variance in interest expense in 2019 from 2018 primarily reflects changes in crediting rates on deferred compensation at the Alleghany parent company.

Losses before income taxes. The increase in losses before income taxes in 2020 reflects significant realized capital losses, primarily from the write-down of SORC oil field assets, and significant depreciation in the value of the equity securities held at the Alleghany parent company-level, partially offset by the impact of lower corporate administration expense and higher net investment income, all as discussed above. The increase in losses before income taxes in 2019 from 2018 primarily reflects higher corporate administration expense and lower property sales at Alleghany Properties, partially offset by appreciation in the value of the equity securities held at the Alleghany parent company-level compared with depreciation in 2018, all as discussed above.

Reserve Review Process

Our reinsurance and insurance subsidiaries analyze, at least quarterly, liabilities for unpaid loss and LAE established in prior years and adjust their expected ultimate cost, where necessary, to reflect favorable or unfavorable development in loss experience and new information, including, for certain catastrophe events, revised industry estimates of the magnitude of a catastrophe. Adjustments to previously recorded liabilities for unpaid loss and LAE, both favorable and unfavorable, are reflected in our financial results in the periods in which these adjustments are made and are referred to as prior accident year loss reserve development. The following table presents the reserves established in connection with the loss and LAE of our reinsurance and insurance segments on a gross and net basis by line of business. These reserve amounts represent the accumulation of estimates of ultimate loss (including for IBNR) and LAE.

	As of December 31, 2020			As of December 31, 2019			As of December 31, 2018		
	Gross Loss and LAE Reserves	Reinsurance Recoverables on Unpaid Losses	Net Loss and LAE Reserves	Gross Loss and LAE Reserves	Reinsurance Recoverables on Unpaid Losses	Net Loss and LAE Reserves	Gross Loss and LAE Reserves	Reinsurance Recoverables on Unpaid Losses	Net Loss and LAE Reserves
	(\$ in millions)								
Reinsurance Segment									
Property	\$ 2,086.0	\$ (480.0)	\$ 1,606.0	\$ 1,965.5	\$ (604.3)	\$ 1,361.2	\$ 2,102.5	\$ (701.8)	\$ 1,400.7
Casualty & other ⁽¹⁾	7,728.0	(350.7)	7,377.3	7,358.3	(303.2)	7,055.1	7,339.7	(261.9)	7,077.8
	9,814.0	(830.7)	8,983.3	9,323.8	(907.5)	8,416.3	9,442.2	(963.7)	8,478.5
Insurance Segment									
Property	585.6	(222.1)	363.5	409.0	(142.2)	266.8	509.5	(187.1)	322.4
Casualty ⁽²⁾	2,441.4	(640.1)	1,801.3	2,075.3	(537.3)	1,538.0	2,181.6	(700.3)	1,481.3
Workers' Compensation	2.3	—	2.3	2.3	—	2.3	2.5	—	2.5
All other ⁽³⁾	197.6	(81.1)	116.5	183.7	(62.6)	121.1	181.3	(73.1)	108.2
	3,226.9	(943.3)	2,283.6	2,670.3	(742.1)	1,928.2	2,874.9	(960.5)	1,914.4
Eliminations	(70.3)	70.3	—	(65.7)	65.7	—	(66.8)	66.8	—
Total	\$ 12,970.6	\$ (1,703.7)	\$ 11,266.9	\$ 11,928.4	\$ (1,583.9)	\$ 10,344.5	\$ 12,250.3	\$ (1,857.4)	\$ 10,392.9

- (1) Primarily consists of the following reinsurance lines of business: directors' and officers' liability; errors and omissions liability; general liability; medical malpractice; ocean marine and aviation; auto liability; accident & health; mortgage reinsurance; surety; asbestos-related illness and environmental impairment liability; and credit.
- (2) Primarily consists of the following direct lines of business: umbrella/excess; directors' and officers' liability; professional liability; and general liability.
- (3) Primarily consists of commercial multi-peril and surety lines of business, as well as loss and LAE reserves for terminated lines of business and loss reserves acquired in connection with prior acquisitions for which the sellers provided loss reserve guarantees.

Changes in Gross and Net Loss and LAE Reserves between December 31, 2020 and December 31, 2019. Gross and net loss and LAE reserves as of December 31, 2020 increased from December 31, 2019, primarily reflecting the impact of growing net premiums earned and catastrophe losses incurred in 2020, partially offset by payments on catastrophe losses incurred primarily in 2017, 2018 and 2019 and favorable prior accident year loss reserve development, all as discussed above. The 2020 catastrophe losses, net of reinsurance, include \$415.2 million related to the Pandemic, \$114.2 million related to Hurricane Laura and \$92.6 million related to Hurricane Sally and \$19.1 million related to earthquakes in Puerto Rico.

Changes in Gross and Net Loss and LAE Reserves between December 31, 2019 and December 31, 2018. Gross and net loss and LAE reserves as of December 31, 2019 decreased from December 31, 2018, primarily reflecting payments on catastrophe losses incurred in 2017 and 2018 and favorable prior accident year loss reserve development, partially offset by the impact of growing net premiums earned and catastrophe losses incurred in 2019. The 2019 catastrophe losses, net of reinsurance, include \$183.7 million related to Typhoon Hagibis, \$95.4 million related to Typhoon Faxai, \$22.3 million related to civil unrest in Chile and \$13.6 million related to Hurricane Dorian.

Reinsurance Recoverables

Our reinsurance and insurance subsidiaries reinsure portions of the risks they underwrite in order to reduce the effect of individual or aggregate exposure to losses, manage capacity, protect capital resources, reduce volatility in specific lines of business, improve risk-adjusted portfolio returns and enable them to increase gross premiums writings and risk capacity without requiring additional capital. Our reinsurance and insurance subsidiaries generally purchase reinsurance and retrocessional coverages from highly-rated third-party reinsurers or on a collateralized basis. If the assuming reinsurers are unable or unwilling to meet the obligations assumed under the applicable reinsurance agreements, our reinsurance and insurance subsidiaries would remain liable for such reinsurance portion not paid by these reinsurers. As such, funds, trust agreements and letters of credit are held to collateralize a portion of our reinsurance and insurance subsidiaries' reinsurance recoverables, and our reinsurance and insurance subsidiaries reinsure portions of the risks they underwrite or assume with multiple reinsurance programs.

As of December 31, 2020, our reinsurance and insurance subsidiaries had total reinsurance recoverables of \$1,781.1 million, consisting of \$1,703.7 million of ceded outstanding loss and LAE and \$85.3 million of recoverables on paid losses, less \$7.9 million of an allowance for credit losses. See Part I, Item 1, "Business — Reinsurance Protection" of this Form 10-K for additional information on the reinsurance purchased by our reinsurance and insurance subsidiaries and Note 5 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on: (i) the reinsurance purchased by our reinsurance and insurance subsidiaries; (ii) the allowance for credit losses; (iii) the concentration of our reinsurance recoverables; and (iv) the ratings profile of our reinsurers.

Critical Accounting Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions about future events that directly affect our reported financial condition and operating performance. More specifically, these estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting period. We rely on historical experience and on various other assumptions that we believe to be reasonable under the circumstances to make judgments about the carrying value of assets and liabilities and reported revenues and expenses that are not readily apparent from other sources. Actual results may differ materially from reported results to the extent that estimates and assumptions prove to be inaccurate.

We believe our most critical accounting estimates are those with respect to the liability for unpaid loss and LAE reserves, fair value measurements of certain financial assets, change in allowance for credit losses on available for sale securities, goodwill and other intangible assets and reinsurance premium revenues, as they require management's most significant exercise of judgment on both a quantitative and qualitative basis. The accounting estimates that result require the use of assumptions about certain matters that are highly uncertain at the time of estimation. To the extent actual experience differs from the assumptions used, our financial condition, results of operations and cash flows would be affected, possibly materially.

Unpaid Loss and LAE

Overview. The estimation of the liability for unpaid loss and LAE is inherently difficult and subjective, especially in view of changing legal and economic environments that impact the development of loss reserves, and therefore, quantitative techniques frequently have to be supplemented by subjective considerations and managerial judgment. In addition, trends that have affected development of liabilities in the past may not necessarily occur or affect liability development to the same degree in the future.

Each of our reinsurance and insurance subsidiaries establishes reserves on its balance sheet for unpaid loss and LAE related to its property and casualty reinsurance and insurance contracts. As of any balance sheet date, there are claims that have not been reported, and some claims may not be reported for many years after the date a loss occurs. As a result of this historical pattern, the liability for unpaid loss and LAE includes significant estimates for IBNR claims. Additionally, reported claims are in various stages of the settlement process. Each claim is settled individually based upon its merits, and certain claims may take years to settle, especially if legal action is involved. As a result, the liabilities for unpaid loss and LAE include significant judgments, assumptions and estimates made by management related to the actual ultimate losses that will arise from the claims. Due to the inherent uncertainties in the process of establishing these liabilities, the actual ultimate loss from a claim is likely to differ, perhaps materially, from the liability initially recorded.

As noted above, as of any balance sheet date, not all claims that have occurred have been reported to us, and if reported may not have been settled. The time period between the occurrence of a loss and the time it is settled is referred to as the "claim tail." In general, actuarial judgments for shorter-tailed lines of business normally have much less of an effect on the determination of the loss reserve amount than when those same judgments are made regarding longer-tailed lines of business. Reported losses for the shorter-tailed classes, such as property classes, generally reach the ultimate level of incurred losses in a relatively short period of time. Rather than having to rely on actuarial assumptions for many accident years, these assumptions are generally only relevant for the more recent accident years. Therefore, these assumptions tend to be less critical and the reserves calculated pursuant to these assumptions are subject to less variability for the shorter-tailed lines of business.

For short-tail lines, loss reserves primarily consist of reserves for reported claims. The process of recording quarterly and annual liabilities for unpaid loss and LAE for short-tail lines is primarily focused on maintaining an appropriate reserve level for reported claims and IBNR. Specifically, we assess the reserve adequacy of IBNR in light of such factors as the current levels of reserves for reported claims and expectations with respect to reporting lags, catastrophe events, historical data, legal developments and economic conditions, including the effects of inflation.

Standard actuarial methodologies employed to estimate ultimate losses incorporate the inherent lag from the time claims occur to when they are reported to an insurer and, if applicable, to when an insurer reports the claims to a reinsurer. Certain actuarial methodologies may be more appropriate than others in instances where this lag may not be consistent from period to period. Consequently, additional actuarial judgment is employed in the selection of methodologies to best incorporate the potential impact of this situation.

Our insurance operating subsidiaries provide coverage on both a claims-made and occurrence basis. Claims-made policies generally require that claims occur and be reported during the coverage period of the policy. Occurrence policies allow claims which occur during a policy's coverage period to be reported after the coverage period, and as a result, these claims can have a very long claim tail, occasionally extending for decades. Casualty claims can have a very long claim tail, in certain situations extending for many years. In addition, casualty claims are more susceptible to litigation and the legal environment and can be significantly affected by changing contract interpretations, all of which contribute to extending the claim tail. For long-tail casualty lines of business, estimating the ultimate liabilities for unpaid loss and LAE is a more complex process and depends on a

number of factors, including the line and volume of the business involved. For these reasons, our insurance operating subsidiaries will generally use actuarial projections in setting reserves for all casualty lines of business.

While the reserving process is difficult for insurance business, the inherent uncertainties of estimating loss reserves are even greater for reinsurance business, due primarily to the longer-tailed nature of most of the reinsurance business, the diversity of development patterns among different types of reinsurance contracts, the necessary reliance on the ceding companies for information regarding reported claims and differing reserving practices among ceding companies, which can be subject to change without notice. TransRe writes a significant amount of non-proportional assumed casualty reinsurance as well as proportional assumed reinsurance of excess liability business for classes such as medical malpractice, directors' and officers' liability, errors and omissions liability and general liability. Claims from such classes can exhibit greater volatility over time than most other classes due to their low frequency, high severity nature and loss cost trends that are more difficult to predict.

The estimation of unpaid loss and LAE for our reinsurance operations is principally based on reports and individual case estimates received from ceding companies. Data received from cedants is audited periodically by TransRe's claims and underwriting personnel, to help ensure that reported data is supported by proper documentation and conforms to contract terms, and is analyzed, as appropriate, by its underwriting and actuarial personnel. Such analysis often includes a detailed review of reported data to assess the underwriting results of assumed reinsurance and to explain any significant departures from expected performance. Over time, reported loss information is ultimately corroborated when the underlying claims are paid.

In addition, the estimation of unpaid loss and LAE, including IBNR, for our reinsurance operations also takes into account assumptions with respect to many factors that will affect ultimate loss costs but are not yet known. The process by which actual carried reserves are determined considers not only actuarial estimates but a myriad of other factors. Such factors, both internal and external, which contribute to the variability and unpredictability of loss costs, include trends related to jury awards, social trends, medical inflation, worldwide economic conditions, tort reforms, judicial interpretations of coverages, the regulatory environment, underlying policy pricing, terms and conditions and claims handling, among others. In addition, information gathered through underwriting and claims audits is also considered. We assess the reasonableness of our unpaid loss and LAE for our reinsurance operations using various actuarial methodologies, principally the paid development method, the reported loss development method and the Bornhuetter-Ferguson method as described below.

In conformity with GAAP, our reinsurance and insurance subsidiaries are not permitted to establish reserves for catastrophe losses that have not occurred. Therefore, losses related to a significant catastrophe, or accumulation of catastrophes, in any reporting period could have a material adverse effect on our results of operations and financial condition during that period.

We believe that the reserves for unpaid loss and LAE established by our reinsurance and insurance subsidiaries are adequate as of December 31, 2020; however, additional reserves, which could have a material impact upon our financial condition, results of operations and cash flows, may be necessary in the future.

Methodologies and Assumptions. Our reinsurance and insurance subsidiaries use a variety of techniques that employ significant judgments and assumptions to establish the liabilities for unpaid loss and LAE recorded at the balance sheet date. These techniques include detailed statistical analyses of past claims reporting, settlement activity, claims frequency, internal loss experience, changes in pricing or coverages and severity data when sufficient information exists to lend statistical credibility to the analyses. More subjective techniques are used when statistical data is insufficient or unavailable. These liabilities also reflect implicit or explicit assumptions regarding the potential effects of future inflation, court resolutions and judicial interpretations, reinsurance coverage, legislative changes and recent trends in such factors, as well as a number of actuarial assumptions that vary across our reinsurance and insurance subsidiaries and across lines of business. This data is analyzed by line of business, coverage, accident year or underwriting year and reinsurance contract type, as appropriate.

Our loss reserve review processes use actuarial methods that vary by operating subsidiary and line of business and produce point estimates for each class of business. The actuarial methods used include the following methods:

- *Reported Loss Development Method:* a reported loss development pattern is calculated based on historical loss development data, and this pattern is then used to project the latest evaluation of cumulative reported losses for each accident year or underwriting year, as appropriate, to ultimate levels;
- *Paid Development Method:* a paid loss development pattern is calculated based on historical paid loss development data, and this pattern is then used to project the latest evaluation of cumulative paid losses for each accident year or underwriting year, as appropriate, to ultimate levels;
- *Expected Loss Ratio Method:* expected loss ratios are applied to premiums earned, based on historical company experience, or historical insurance industry results when company experience is deemed not to be sufficient; and
- *Bornhuetter-Ferguson Method:* the results from the Expected Loss Ratio Method are essentially blended with either the Reported Loss Development Method or the Paid Development Method.

The primary actuarial assumptions used by our reinsurance and insurance subsidiaries include the following:

- *Expected loss ratios* represent management's expectation of losses, in relation to earned premium, at the time business is written, before any actual claims experience has emerged. This expectation is a significant determinant of the estimate of loss reserves for recently written business where there is little paid or incurred loss data to consider. Expected loss ratios are generally derived from historical loss ratios adjusted for the impact of rate changes, loss cost trends and known changes in the type of risks underwritten. For certain longer-tailed reinsurance lines of business that are typically lower frequency, high severity classes, expected loss ratios are often used for the last several accident years or underwriting years, as appropriate.
- *Rate of loss cost inflation (or deflation)* represents management's expectation of the inflation associated with the costs we may incur in the future to settle claims. Expected loss cost inflation is particularly important for longer-tailed classes.
- *Reported and paid loss emergence patterns* represent management's expectation of how losses will be reported and ultimately paid in the future based on the historical emergence patterns of reported and paid losses and are derived from past experience of our subsidiaries, modified for current trends. These emergence patterns are used to project current reported or paid loss amounts to their ultimate settlement value.

In the absence of sufficiently credible internally-derived historical information, each of the above actuarial assumptions may also incorporate data from the insurance or reinsurance industries as a whole, or peer companies writing substantially similar coverages. Data from external sources may be used to set expectations, as well as assumptions regarding loss frequency or severity relative to an exposure unit or claim, among other actuarial parameters. Assumptions regarding the application or composition of peer group or industry reserving parameters require substantial judgment.

Loss Frequency and Severity. Loss frequency and severity are measures of loss activity that are considered in determining the key assumptions described above. Loss frequency is a measure of the number of claims per unit of insured exposure, and loss severity is a measure of the average size of claims. Factors affecting loss frequency include the effectiveness of loss controls and safety programs, changes in economic conditions or weather patterns. Factors affecting loss severity include changes in policy limits, retentions, rate of inflation and judicial interpretations. Another factor affecting estimates of loss frequency and severity is the loss reporting lag, which is the period of time between the occurrence of a loss and the date the loss is reported to our reinsurance or insurance operating subsidiaries. The length of the loss reporting lag affects their ability to accurately predict loss frequency, which are more predictable for lines with short reporting lags, as well as the amount of reserves needed for IBNR. If the actual level of loss frequency and severity is higher or lower than expected, the ultimate losses will be different than management's estimates. A small percentage change in an estimate can result in a material effect on our reported earnings. The following table presents the impact of changes, which could be favorable or unfavorable, in frequency and severity on our loss estimates for claims occurring in 2020:

Severity	Frequency		
	1.0%	5.0%	10.0%
	(\$ in millions)		
1%	\$ 91.7	\$ 275.9	\$ 506.1
5%	275.9	467.4	706.8
10%	506.1	706.8	957.6

Our net reserves for loss and LAE of \$11.3 billion as of December 31, 2020 relate to multiple accident years. Therefore, the impact of changes in frequency or severity for more than one accident year could be higher or lower than the amounts reflected above. We believe the above analysis provides a reasonable benchmark for sensitivity, as we believe it is within historical variation for our reserves. Currently, none of the scenarios is believed to be more likely than the others. See Note 1(k) and Note 6 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on our loss and LAE.

Prior Year Development. Our reinsurance and insurance subsidiaries continually evaluate the potential for changes, both favorable and unfavorable, in their estimates of loss and LAE liabilities and use the results of these evaluations to adjust both recorded liabilities and underwriting criteria. With respect to liabilities for unpaid loss and LAE established in prior years, these liabilities are periodically analyzed and their expected ultimate cost adjusted, where necessary, to reflect favorable or unfavorable development in loss experience and new information, including, for certain catastrophic events, revised industry estimates of the magnitude of a catastrophe. Adjustments to previously recorded liabilities for unpaid loss and LAE, both favorable and unfavorable, are reflected in our financial results in the periods in which these adjustments are made and are referred to as prior accident year loss reserve development. We adjusted our prior year loss and LAE reserve estimates during 2020, 2019 and 2018 based on current information that differed from previous assumptions made at the time such loss and LAE reserves were previously estimated. See Note 6(b) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for a table presenting the favorable and unfavorable prior accident year loss reserve development for 2020, 2019 and 2018.

Asbestos-Related Illness and Environmental Impairment Reserves. Loss and LAE include amounts for risks related to asbestos-related illness and environmental impairment. The reserves carried for such claims, including the IBNR portion, are based upon known facts and current law at the respective balance sheet dates. However, significant uncertainty exists in determining the amount of ultimate liability for asbestos-related illness and environmental impairment losses. This uncertainty is due to, among other reasons, inconsistent and changing court resolutions and judicial interpretations with respect to underlying policy intent and coverage and uncertainties as to the allocation of responsibility for resultant damages, among other reasons. Further, possible future changes in statutes, laws, regulations, theories of liability and other factors could have a material effect on these liabilities and, accordingly, future earnings. Although we are unable at this time to determine whether additional reserves, which could have a material adverse effect upon our results of operations, may be necessary in the future, we believe that our asbestos-related illness and environmental impairment reserves are adequate as of December 31, 2020. See Note 12(c) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” and pages 60 and 61 of this Form 10-K for additional information on loss and LAE reserves related to asbestos-related illness and environmental impairment.

Reinsurance. Our reinsurance and insurance subsidiaries reinsure portions of the risks they underwrite in order to reduce the effect of individual or aggregate exposure to losses, manage capacity, protect capital resources, reduce volatility in specific lines of business, improve risk-adjusted portfolio returns and enable them to increase gross premium writings and risk capacity without requiring additional capital. Our reinsurance and insurance subsidiaries generally purchase reinsurance and retrocessional coverages from highly-rated, third-party reinsurers. If the assuming reinsurers are unable or unwilling to meet the obligations assumed under the applicable reinsurance agreements, our reinsurance and insurance subsidiaries would remain liable for such reinsurance portion not paid by these reinsurers. Recoverables recorded with respect to claims ceded to reinsurers under reinsurance contracts are predicated in large part on the estimates for unpaid losses and, therefore, are also subject to a significant degree of uncertainty. In addition to the factors cited above, reinsurance recoverables may prove uncollectible if a reinsurer is unable or unwilling to perform under a contract. Reinsurance purchased by our reinsurance and insurance subsidiaries does not relieve them of their obligations to their own policyholders or cedants. Additional information regarding the use of, and risks related to the use of reinsurance by our reinsurance and insurance subsidiaries can be found on pages 49, 50, 65 and 66 of this Form 10-K. Also see Note 1(f) and Note 5 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for additional information on our reinsurance recoverables.

Fair Value Measurement of Certain Financial Assets

Fair value is defined as the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between willing, able and knowledgeable market participants at the measurement date. Fair value measurements are not adjusted for transaction costs. In addition, a three-tiered hierarchy for inputs is used in management’s determination of fair value of financial instruments that emphasizes the use of observable inputs over the use of unobservable inputs by requiring that the observable inputs be used when available. Observable inputs are market participant assumptions based on market data obtained from sources independent of the reporting entity. Unobservable inputs are the reporting entity’s own assumptions about market participant assumptions based on the best information available under the circumstances. In assessing the appropriateness of using observable inputs in making our fair value determinations, we consider whether the market for a particular security is “active” or “inactive” based on all the relevant facts and circumstances. A market may be considered to be inactive if there are relatively few recent transactions or if there is a significant decrease in market volume. Furthermore, we consider whether observable transactions are “orderly” or not. We do not consider a transaction to be orderly if there is evidence of a forced liquidation or other distressed condition; as such, little or no weight is given to that transaction as an indicator of fair value.

The three-tiered hierarchy used in management’s determination of fair value is broken down into three levels based on the reliability and observability of inputs. Assets classified as Level 3 principally include certain other asset-backed securities (primarily, collateralized loan obligations) and, to a lesser extent, U.S. and foreign corporate bonds (including privately issued securities), commercial mortgage-backed securities, or “CMBS,” and commercial mortgage loans. The valuation of Level 3 assets requires the greatest degree of judgment. These measurements may be made under circumstances in which there is little, if any, market activity for the asset. Our assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment. In making the assessment, we consider factors specific to the asset.

Mortgage-backed and asset-backed securities are initially valued at the transaction price. Subsequently, we use widely accepted valuation practices that produce a fair value measurement. The vast majority of fair values are determined using an income approach. The income approach primarily involves developing a discounted cash flow model using the future projected cash flows of the underlying collateral, as well as other inputs described below. A few Level 3 valuations are based entirely on non-binding broker quotes. These securities consist primarily of mortgage-backed and asset-backed securities where reliable pool and loan level collateral information cannot be reasonably obtained, and as such, an income approach is not feasible.

Since Level 3 valuations are based on techniques that use significant inputs that are unobservable with little or no market activity, the fair values under the market approach for Level 3 securities are less credible than under the income approach;

however, the market approach, where feasible, is used to corroborate the fair values determined by the income approach. The market approach primarily relies on the securities' relationships to quoted transaction prices for similarly structured instruments. To the extent that transaction prices for similarly structured instruments are not available for a particular security, other market approaches are used to corroborate the fair values determined by the income approach, including option adjusted spread analyses.

Unobservable inputs, significant to the measurement and valuation of mortgage-backed and asset-backed securities, are generally used in the income approach, and include assumptions about prepayment speed and collateral performance, including default, delinquency and loss severity rates. Significant changes to any one of these inputs, or combination of inputs, could significantly change the fair value measurement for these securities.

The impact of prepayment speeds on fair value is dependent on a number of variables including whether the securities were purchased at a premium or discount. A decrease in interest rates generally increases the assumed rate of prepayments, and an increase in interest rates generally decreases the assumed speed of prepayments. Increased prepayments increase the yield on securities purchased at a discount and reduce the yield on securities purchased at a premium. In a decreasing prepayment environment, yields on securities purchased at a discount are reduced but are increased for securities purchased at a premium. Changes in default assumptions on underlying collateral are generally accompanied by directionally similar changes in other collateral performance factors, but generally result in a directionally opposite change in prepayment assumptions.

See Notes 1(b), 1(c), 3 and 4 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on our investments and fair value.

Change in Allowance for Credit Losses on Available for Sale Securities

The determination of the allowance for credit losses on AFS securities requires the judgment of management and consideration of the fundamental condition of the issuer, its near-term business prospects and all the relevant facts and circumstances.

We hold our debt securities as AFS and as such, these securities are recorded at fair value. Credit losses for AFS securities are recorded through an allowance for credit losses. Changes in the allowance for credit losses are recorded for (or as a reversal of) credit losses on AFS securities. A portion of such decline in fair value related to a debt security that is believed to arise from factors other than credit is recorded as a component of other comprehensive income rather than charged against earnings.

We continually monitor the difference between amortized cost and the estimated fair value of our debt investments. The analysis of a security's decline in value is performed in its functional currency. Debt securities in an unrealized loss position are evaluated for credit losses if they meet any of the following criteria: (i) they are trading at a discount of at least 20 percent to amortized cost and have a credit rating below investment grade or are not rated; (ii) there has been a negative credit or news event with respect to the issuer that could indicate the existence of a credit loss; or (iii) we intend to sell, or it is more likely than not that we will sell, the debt security before recovery of its amortized cost basis.

If we intend to sell, or it is more likely than not that we will sell, a debt security before recovery of its amortized cost basis, the total amount of the unrealized loss position is recognized as a credit loss in earnings. To the extent that a debt security that is in an unrealized loss position is not impaired based on the preceding, we will consider a debt security to be impaired when we believe it to be probable that we will not be able to collect the entire amortized cost basis. For debt securities in an unrealized loss position as of the end of each quarter, we develop a best estimate of the present value of expected cash flows. If the results of the cash flow analysis indicate that we will not recover the full amount of its amortized cost basis in the debt security, we record a credit loss in earnings equal to the difference between the present value of expected cash flows and the amortized cost basis of the debt security. If applicable, the difference between the total unrealized loss position on the debt security and the total loss recognized in earnings is the non-credit related portion, which is recorded as a component of other comprehensive income.

In developing the cash flow analyses for debt securities, we consider various factors for the different categories of debt securities. For municipal bonds, we take into account the taxing power of the issuer, source of revenue, credit risk and enhancements and pre-refunding. For mortgage and asset-backed securities, we discount our best estimate of future cash flows at an effective rate equal to the original effective yield of the security or, in the case of floating rate securities, at the current coupon. Our models include assumptions about prepayment speeds, default and delinquency rates, underlying collateral (if any), credit ratings, credit enhancements and other observable market data. For corporate bonds, we review business prospects, credit ratings and available information from asset managers and rating agencies for individual securities.

See Note 1(b) and Note 4(f) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on our investments and investment impairments.

Goodwill and Other Intangible Assets

Goodwill and other intangible assets, net of amortization, are recorded as a consequence of business acquisitions. Goodwill represents the excess, if any, of the amount paid to acquire subsidiaries and other businesses over the fair value of their

net assets as of the date of acquisition. Other intangible assets are recorded at their fair value as of the acquisition date. A significant amount of judgment is needed to determine the fair value as of the date of acquisition of other intangible assets and the net assets acquired in a business acquisition. The determination of the fair value of other intangible assets and net assets often involves the use of valuation models and other estimates, which involve many assumptions and variables and are inherently subjective. The fair value estimates may include the use of financial projections and discount rates. Other intangible assets that are not deemed to have an indefinite useful life are amortized over their estimated useful lives. Goodwill and intangible assets that have an indefinite useful life are not subject to amortization.

Goodwill and other intangible assets deemed to have an indefinite useful life are tested annually in the fourth quarter of every year for impairment. Goodwill and other intangible assets are also tested whenever events and changes in circumstances suggest that the carrying amount may not be recoverable. A significant amount of judgment is required in performing goodwill and other intangible asset impairment tests. These tests may include estimating the fair value of our subsidiaries, which include Alleghany Capital's operating subsidiaries, and other intangible assets. The fair value estimates may include the use of financial projections and discount rates. If it is determined that an asset has been impaired, the asset is written down by the amount of the impairment, with a corresponding charge to net earnings. Subsequent reversal of any impairment charge is not permitted.

With respect to goodwill, a qualitative assessment is first made to determine whether it is necessary to perform quantitative testing. This initial assessment includes, among other factors, consideration of: (i) past, current and projected future earnings and equity; (ii) recent trends and market conditions; and (iii) valuation metrics involving similar companies that are publicly-traded and acquisitions of similar companies, if available. If this initial qualitative assessment indicates that the fair value of an operating subsidiary of ours may be less than its carrying amount, a second step is taken, involving a comparison between the estimated fair values of our operating subsidiary with its respective carrying amount including goodwill. Under GAAP, fair value refers to the amount for which the entire operating subsidiary may be bought or sold. The methods for estimating the fair value of an operating subsidiary values include asset and liability fair values and other valuation techniques, such as discounted cash flows and multiples of earnings or revenues. All of these methods involve significant estimates and assumptions. If the carrying value exceeds estimated fair value an impairment charge is recognized for the amount by which the carrying amount of the operating subsidiary exceeds its estimated fair value. Any resulting impairment loss recognized cannot exceed the total amount of goodwill associated with the operating subsidiary.

Our consolidated balance sheet as of December 31, 2020 includes goodwill of \$614.2 million related primarily to Jazwares, Wilbert, Concord, Kentucky Trailer, PCT, W&W|AFCO Steel and IPS, and intangible assets, net of amortization, of \$787.5 million related primarily to Jazwares, W&W|AFCO Steel, Wilbert, TransRe, Concord, IPS, PCT and Kentucky Trailer. See Note 1(i) and Note 2 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on our goodwill and other intangible assets.

Reinsurance Premium Revenues

We must make certain judgments in the determination of assumed reinsurance premiums written and earned. For pro rata contracts, premiums written and earned are generally based on reports received from ceding companies. For excess-of-loss contracts, premiums are generally recorded as written based on contract terms and are earned ratably over the periods the related coverages are provided. Unearned premiums and ceded unearned premiums represent the portion of gross premiums written and ceded premiums written, respectively, related to the unexpired periods of such coverages. The relationship between net premiums written and net premiums earned will, therefore, generally vary depending on the volume and inception dates of the business assumed and ceded and the mix of such business between pro rata and excess-of-loss reinsurance.

Premiums written and earned, along with related costs, for which data have not been reported by the ceding companies, are estimated based on historical patterns and other relevant factors. Such estimates of premiums earned are considered when establishing the IBNR portion of loss reserves. The differences between these estimates and actual data subsequently reported, which may be material as a result of the diversity of cedants and reporting practices and the inherent difficulty in estimating premium inflows, among other factors, are recorded in the period when actual data become available and such differences may materially affect our results of operations.

Other Accounting Estimates

In addition to the policies described above which contain critical accounting estimates, our other accounting policies are described in Note 1 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K. The accounting policies described in Note 1 require us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities that do not meet the level of materiality required for a determination that the accounting policy includes critical accounting estimates. On an ongoing basis, we evaluate our estimates, including those related to the value of deferred acquisition costs, incentive compensation, income taxes, pension benefits and contingencies and litigation. Our estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Our actual results may differ from these estimates under different assumptions or conditions.

Financial Condition

Alleghany Parent Company-Level

General. In general, we follow a policy of maintaining a relatively liquid financial position at our unrestricted holding companies. This policy has permitted us to expand our operations through internal growth at our subsidiaries and through acquisitions of, or substantial investments in, operating companies. As of December 31, 2020, we held total marketable securities and cash of \$1,123.7 million, compared with \$1,283.3 million as of December 31, 2019. The decrease in marketable securities and cash in 2020 primarily reflects redemption of certain senior notes, a special dividend paid in the first quarter of 2020 and the repurchase of shares of our common stock, as discussed below, as well as contributions to Alleghany Capital to fund the acquisitions of Wilbert and acquisitions made by Jazwares and PCT, partially offset by the issuance of the 2030 Senior Notes, as discussed below, and the receipt of dividends from TransRe and RSUI. The \$1,123.7 million is composed of \$713.6 million at the Alleghany parent company, \$332.0 million at AIHL and \$78.1 million at the TransRe holding company. We also hold certain non-marketable investments at our unrestricted holding companies. We believe that we have and will have adequate internally generated funds, cash resources and unused credit facilities to provide for the currently foreseeable needs of our business, and we had no material commitments for capital expenditures as of December 31, 2020.

Stockholders' equity attributable to Alleghany stockholders was approximately \$8.8 billion as of December 31, 2020, and as of December 31, 2019, whereby increases from net earnings attributable to Alleghany stockholders, as discussed above, as well as appreciation in the value of our debt securities portfolio were offset by a special dividend and repurchases of our common stock, all as discussed below. As of December 31, 2020, we had 14,041,180 shares of our common stock outstanding, compared with 14,364,628 shares of our common stock outstanding as of December 31, 2019.

Debt. On May 18, 2020, we completed a public offering of \$500.0 million aggregate principal of our 3.625% senior notes due on May 15, 2030, or the "2030 Senior Notes." The 2030 Senior Notes are unsecured and unsubordinated general obligations of Alleghany. Interest on the 2030 Senior Notes is payable semi-annually in arrears on May 15 and November 15 of each year. The terms of the 2030 Senior Notes permit redemption prior to maturity. The indenture under which the 2030 Senior Notes were issued contains covenants that impose conditions on our ability to create liens on the capital stock of AIHL, TransRe, or RSUI. The 2030 Senior Notes were issued at approximately 99.9 percent of par, resulting in proceeds after underwriting discount, commissions and other expenses of \$494.8 million, and an effective yield of approximately 3.64 percent. Approximately \$4.6 million of underwriting discount, commissions and other expenses were recorded as deferred charges, which are amortized over the life of the 2030 Senior Notes.

On September 9, 2014, we completed a public offering of \$300.0 million aggregate principal amount of our 4.90% senior notes due on September 15, 2044, or the "2044 Senior Notes." The 2044 Senior Notes are unsecured and unsubordinated general obligations of Alleghany. Interest on the 2044 Senior Notes is payable semi-annually on March 15 and September 15 of each year. The terms of the 2044 Senior Notes permit redemption prior to their maturity. The indenture under which the 2044 Senior Notes were issued contains covenants that impose conditions on our ability to create liens on, or engage in sales of, the capital stock of AIHL, TransRe or RSUI. The 2044 Senior Notes were issued at approximately 99.3 percent of par, resulting in proceeds after underwriting discount, commissions and other expenses of \$294.3 million and an effective yield of approximately 5.0 percent.

On June 26, 2012, we completed a public offering of \$400.0 million aggregate principal amount of our 4.95% senior notes due on June 27, 2022, or the "2022 Senior Notes." The 2022 Senior Notes are unsecured and unsubordinated general obligations of Alleghany. Interest on the 2022 Senior Notes is payable semi-annually on June 27 and December 27 of each year. The terms of the 2022 Senior Notes permit redemption prior to their maturity. The indenture under which the 2022 Senior Notes were issued contains covenants that impose conditions on our ability to create liens on, or engage in sales of, the capital stock of AIHL, TransRe or RSUI. The 2022 Senior Notes were issued at approximately 99.9 percent of par, resulting in proceeds after underwriting discount, commissions and other expenses of \$396.0 million and an effective yield of approximately 5.05 percent.

On September 20, 2010, we completed a public offering of \$300.0 million aggregate principal amount of our 5.625% senior notes due on September 15, 2020, or the "2020 Senior Notes." The terms of the 2020 Senior Notes permitted redemption prior to their maturity. The 2020 Senior Notes were issued at approximately 99.6 percent of par, resulting in proceeds after underwriting discount, commissions and other expenses of \$298.9 million and an effective yield of approximately 5.67 percent.

On January 15, 2020, we redeemed the 2020 Senior Notes for \$312.7 million, consisting of the \$300.0 million aggregate principal amount redeemed, \$7.1 million of redemption premium and \$5.6 million of accrued and unpaid interest on the principal amount being redeemed to the date of redemption. As a result of this early redemption of the 2020 Senior Notes, we recorded a realized loss, before tax, of \$7.1 million in 2020.

Credit Agreement. On July 31, 2017, we entered into a five-year credit agreement, or the "Credit Agreement," with certain lenders party thereto, which provides for an unsecured revolving credit facility in an aggregate principal amount of up to \$300.0 million. The credit facility is scheduled to expire on July 31, 2022, unless earlier terminated. Borrowings under the Credit Agreement will be available for working capital and general corporate purposes, including permitted acquisitions and repurchases

of common stock. Borrowings under the Credit Agreement bear a floating rate of interest based in part on our credit rating, among other factors. The Credit Agreement contains representations, warranties and covenants customary for bank loan facilities of this nature. There were no borrowings under the Credit Agreement from inception through December 31, 2020.

The Credit Agreement contains representations, warranties and covenants customary for bank loan facilities of this nature and substantially similar to the Prior Credit Agreement. In this regard, the Credit Agreement requires Alleghany to, among other things, (x) maintain consolidated net worth of not less than the sum of (i) \$5.3 billion plus (ii) 50% of the cumulative consolidated net income earned in each fiscal quarter thereafter (if positive) commencing with the fiscal quarter ending June 30, 2017 and (y) maintain a ratio of consolidated total indebtedness to consolidated capital as of the end of each fiscal quarter of not greater than 0.35 to 1.0. Additionally, the Credit Agreement contains various negative covenants with which Alleghany must comply, including, but not limited to, limitations respecting: the creation of liens on any property or asset; the incurrence of indebtedness; mergers, consolidations, liquidations and dissolutions; change of business; sales of assets; transactions with affiliates; and other provisions customary in similar types of agreements.

If an event of default occurs, then, to the extent permitted in the Credit Agreement, the lenders may direct the administrative agent to, or the administrative agent may, with the consent of lenders holding more than 50% of the aggregate outstanding principal amount of the loans, as applicable, terminate the commitments, accelerate the repayment of any outstanding loans and exercise all rights and remedies available to such lenders under the Credit Agreement and applicable law. In the case of an event of default that exists due to the occurrence of certain involuntary or voluntary bankruptcy, insolvency or reorganization events of Alleghany, the commitments will automatically terminate and the repayment of any outstanding loans shall be automatically accelerated.

Dividends from Subsidiaries. See Note 10(c) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K for information on dividend restrictions and dividends received from our subsidiaries.

Common Stock Repurchases. In November 2015, our Board of Directors authorized the repurchase of shares of our common stock at such times and at prices as management determines to be advisable, up to an aggregate of \$400.0 million. In June 2018, our Board of Directors authorized, upon the completion of the program authorized in 2015, the repurchase of additional shares of our common stock at such times and at prices as management determines to be advisable, up to an aggregate of \$400.0 million. In September 2019, our Board of Directors authorized, upon the completion of the program authorized in 2018, the repurchase of additional shares of our common stock at such times and at prices as management determines to be advisable, up to an aggregate of \$500.0 million. As of December 31, 2020, we had \$432.4 million remaining in the aggregate under our share repurchase authorizations.

The following table presents the shares of our common stock that we repurchased in 2020, 2019 and 2018:

	Year Ended December 31,		
	2020	2019	2018
Shares repurchased	333,393	215,091	822,849
Cost of shares repurchased (in millions)	\$ 194.8	\$ 144.4	\$ 491.6
Average price per share repurchased	\$ 584.18	\$ 671.44	\$ 597.48

Dividends. From 1999 through 2011, we declared stock dividends in lieu of cash dividends every year. Our Board of Directors determined not to declare a dividend, cash or stock, for 2012 through 2017 and 2019. In February 2018, our Board of Directors declared a special dividend of \$10.00 per share for stockholders of record on March 5, 2018. On March 15, 2018, we paid dividends to stockholders totaling \$154.0 million. In February 2020, the Alleghany Board of Directors declared a special dividend of \$15.00 per share for stockholders of record on March 5, 2020. On March 16, 2020, we paid dividends to stockholders totaling \$215.0 million.

Capital Contributions. From time to time, we make capital contributions to our subsidiaries. In 2020, we made aggregate capital contributions of \$126.1 million to Alleghany Capital to: (i) fund a portion of PCT’s acquisition of a manufacturer of high-performance carbide end mills in March 2020 for \$20.1 million; (ii) fund a portion of Jazwares’s acquisition of Kelly Toy that closed on April 1, 2020 for \$59.7 million; and (iii) fund a portion of its purchase of an additional approximately 55 percent of Wilbert it previously did not own that closed on April 1, 2020 for \$46.3 million. In addition, in 2020, we contributed \$3.1 million to SORC for purposes of its operations prior to its December 31, 2020 sale.

In 2019, we made aggregate capital contributions of \$50.2 million to Alleghany Capital to: (i) fund a portion of PCT's acquisition of a consumable cutting tool manufacturer in June 2019 for \$29.4 million; (ii) fund a portion of Kentucky Trailer's acquisition of a manufacturer of aluminum feed transportation equipment in July 2019 for \$12.2 million; and (iii) purchase all PCT noncontrolling interests effective April 1, 2019 for \$8.6 million. In addition, in 2019, we contributed \$8.3 million to SORC for purposes of ongoing operations.

In 2018, we made aggregate capital contributions of \$144.1 million to Alleghany Capital to: (i) acquire approximately 85 percent of the equity in Concord for \$68.6 million (excluding amounts for transaction-related expenses and estimates of future amounts payable); and (ii) fund Alleghany Capital's portion of the acquisition of Hirschfeld by its subsidiary W&W|AFCO Steel for \$75.5 million (excluding amounts for transaction-related expenses). In addition, in 2018 we contributed \$14.1 million to SORC for purposes of ongoing operations.

Contractual Obligations. We have certain obligations to make future payments under contracts and credit-related financial instruments and commitments. The following table presents certain long-term aggregate contractual obligations and credit-related financial commitments as of December 31, 2020:

Contractual Obligations	Total	Within 1 Year	More than 1 Year but Within 3 Years (\$ in millions)	More than 3 Years but Within 5 Years	More than 5 Years
Loss and LAE	\$ 12,970.6	\$ 3,807.3	\$ 4,075.8	\$ 2,053.6	\$ 3,033.9
Senior notes ⁽¹⁾ and other debt and related interest	3,184.5	106.8	910.6	264.2	1,902.9
Operating lease obligations	344.0	48.5	74.1	61.6	159.8
Investments ⁽²⁾	42.6	10.5	16.1	16.0	—
Other long-term liabilities ⁽³⁾	400.7	126.5	150.1	41.3	82.8
Total	\$ 16,942.4	\$ 4,099.6	\$ 5,226.7	\$ 2,436.7	\$ 5,179.4

- (1) "Senior Notes" refers to: (i) the Alleghany Senior Notes, consisting of the 2022 Senior Notes, the 2030 Senior Notes and the 2044 Senior Notes; and (ii) TransRe's 8.00% senior notes due on November 30, 2039. See Note 8 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on the Senior Notes and other debt.
- (2) Primarily reflects capital commitments to investment partnerships.
- (3) Primarily reflects obligations related to employee long-term compensation plans and retirement benefit plans. See Notes 14 and 15 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on long-term compensation and retirement benefit plans, respectively.

Our reinsurance and insurance subsidiaries have obligations to make certain payments for loss and LAE pursuant to insurance policies and reinsurance contracts they issue. These future payments are reflected as reserves on our consolidated financial statements. With respect to loss and LAE, there is typically no minimum contractual commitment associated with insurance policies and reinsurance contracts, and the timing and ultimate amount of actual claims related to these reserves is uncertain.

Investments in Certain Variable Interest Entities. In December 2012, TransRe obtained an ownership interest in Pillar Capital Holdings Limited, or "Pillar Holdings," a Bermuda-based insurance asset manager focused on collateralized reinsurance and catastrophe insurance-linked securities. Additionally, TransRe and, to a lesser extent, AIHL invested in limited partnership funds managed by Pillar Holdings, or the "Funds." We have concluded that both Pillar Holdings and the Funds, or collectively, the "Pillar Investments," represent variable interest entities and that we are not the primary beneficiary, as we do not have the ability to direct the activities that most significantly impact each entity's economic performance. Therefore, the Pillar Investments are not consolidated and are accounted for under the equity method of accounting. See Note 4(i) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on the Pillar Investments as of December 31, 2020.

See Note 12(e) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for further information regarding variable interest entities.

Investments in Commercial Mortgage Loans. As of December 31, 2020 and 2019, the carrying value of our commercial mortgage loan portfolio was \$670.2 million and \$686.2 million, respectively, representing the unpaid principal balance on the loans, less allowance for credit losses. See Note 4(j) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional detail on the ratings of our commercial mortgage portfolio as of December 31, 2020.

Subsidiaries

Financial strength is also a high priority of our subsidiaries, whose assets stand behind their financial commitments to their customers and vendors. We believe that our subsidiaries have and will have adequate internally generated funds, cash

resources and unused credit facilities to provide for the currently foreseeable needs of their businesses. Our subsidiaries had no material commitments for capital expenditures as of December 31, 2020.

The obligations and cash outflow of our reinsurance and insurance subsidiaries include claim settlements, commission expenses, administrative expenses, purchases of investments and interest and principal payments on TransRe's 8.00% senior notes due on November 30, 2039. In addition to premium collections, cash inflow is obtained from interest and dividend income, maturities and sales of investments and reinsurance recoveries. Because cash inflow from premiums is received in advance of cash outflow required to settle claims, our reinsurance and insurance operating units accumulate funds which they invest pending the need for liquidity. As the cash needs of a reinsurance or an insurance company can be unpredictable due to the uncertainty of the claims settlement process, the portfolios of our reinsurance and insurance subsidiaries consist primarily of debt securities and short-term investments to ensure the availability of funds and maintain a sufficient amount of liquid securities.

Included in Alleghany Capital is debt associated with its operating subsidiaries, which totaled \$556.9 million as of December 31, 2020, which is generally used to support working capital needs and to help finance acquisitions. The \$556.9 million included:

- \$253.1 million of borrowings by Jazwares under its available credit facilities to support its seasonal peak working capital requirements and borrowings incurred and assumed from its acquisition of WCT in October 2019 and its acquisition of Kelly Toy in April 2020;
- \$98.3 million of borrowings by W&W/AFCO Steel under its available credit facilities and term loans (including borrowings incurred and assumed from its acquisition of Hirschfeld in February 2018);
- \$72.8 million of borrowings by Wilbert under its available credit facility and term loans;
- \$64.1 million of term loans at Kentucky Trailer primarily related to borrowings to finance small acquisitions, including its acquisitions of controlling interests in certain manufacturers of aluminum feed transportation equipment in December 2018 and July 2019, and borrowings under its available credit facilities;
- \$36.5 million of borrowings by IPS under its available credit facility and term loans, in part to finance a small acquisition in May 2019; and
- \$32.1 million of term loans at PCT primarily related to borrowings to finance the acquisition of a waterjet orifice and nozzle manufacturer in 2016 and the acquisition of a consumable cutting tool manufacturer in June 2019.

None of these liabilities are guaranteed by Alleghany or Alleghany Capital. In December 2019, third-party, floating-rate term loans at Concord were repaid and replaced with approximately \$33.2 million of intercompany floating-rate debt funded by the Alleghany parent company. The intercompany debt and related interest expenses are eliminated at the Alleghany consolidated level.

Hotel Development Commitments. In 2020, Alleghany Capital invested \$0.8 million in certain hotel development projects. The projects are conducted through certain limited liability entities, which are variable interest entities, to which we are not the primary beneficiary. As of December 31, 2020, we guaranteed up to \$5.3 million of debt of these entities to certain third party lenders for which we receive a fee.

Consolidated Investment Holdings

Investment Strategy and Holdings. Our investment strategy seeks to avoid permanent loss of capital and maintain appropriate levels of liquidity while maximizing long-term, risk-adjusted, after-tax returns. Our investment decisions are guided mainly by the nature and timing of expected liability payouts, management's forecast of cash flows and the possibility of unexpected cash demands, such as to satisfy claims due to catastrophe losses. Our consolidated investment portfolio consists mainly of highly rated and liquid debt and equity securities listed on national securities exchanges. The overall credit quality of the debt securities portfolio is measured using the lowest rating of three large, reputable rating agencies. In this regard, the overall weighted-average credit quality rating of our debt securities portfolio as of December 31, 2020 and 2019 was AA-. Although a portion of our debt securities, which consist predominantly of municipal bonds, are insured by third-party financial guaranty insurance companies, the impact of such insurance was not significant to the debt securities credit quality rating as of December 31, 2020. See Note 4(f) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional detail on the ratings of our debt securities portfolio as of December 31, 2020.

Our debt securities portfolio has been designed to enable management to react to investment opportunities created by changing interest rates, prepayments, tax and credit considerations or other factors, or to circumstances that could result in a mismatch between the desired duration of debt securities and the duration of liabilities, and, as such, is classified as AFS.

Effective duration measures a portfolio's fair value sensitivity to changes in interest rates. Shorter lengths of time to maturity are generally associated with shorter duration and less sensitivity to changes in market yields. As such, duration

generally falls as time passes, all else being equal. Furthermore, a portfolio's duration can also be impacted by adjustments made to the composition of the portfolio as well as changes in the level of market yields. As yields rise (fall), duration generally decreases (increases). As of December 31, 2020 and 2019, our debt securities portfolio had an effective duration of approximately 4.3 years and 4.2 years, respectively. The increase in duration during the 2020 primarily reflects the significant decline in risk-free interest rates, which was partially offset by the passage of time. As of December 31, 2020, approximately \$4.2 billion, or 27 percent, of our debt securities portfolio represented securities with maturities of five years or less. See Note 4(b) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional detail on the contractual maturities of our consolidated debt securities portfolio. We may increase the proportion of our debt securities portfolio held in securities with maturities of more than five years should the yields of these securities provide, in our judgment, sufficient compensation for their increased risk. We do not believe that this strategy would reduce our ability to meet ongoing claim payments or to respond to significant catastrophe losses.

In the event paid losses accelerate beyond the ability of our reinsurance and insurance subsidiaries to fund these paid losses from current cash balances, current operating cash flow, dividend and interest receipts and security maturities, we would need to liquidate a portion of our investment portfolio, make capital contributions to our reinsurance and insurance subsidiaries, and/or arrange for financing. Strains on liquidity could result from: (i) the occurrence of several significant catastrophe events in a relatively short period of time; (ii) the sale of investments into a depressed marketplace to fund these paid losses; (iii) the uncollectibility of reinsurance recoverables on these paid losses; (iv) the significant decrease in the value of collateral supporting reinsurance recoverables; or (v) a significant reduction in our net premium collections.

We may, from time to time, make significant investments in the common stock of a public company, subject to limitations imposed by applicable regulations.

On a consolidated basis, as of December 31, 2020 our invested assets increased to approximately \$20.2 billion from approximately \$18.9 billion as of December 31, 2019, primarily reflecting appreciation in the value of our debt securities portfolio and net proceeds from the issuance of our 2030 Senior Notes, partially offset by the early redemption of our 2020 Senior Notes, the special dividend payment, repurchases of shares of our common stock and depreciation in the value of our equity securities portfolio, all as discussed above. The appreciation in the value of our debt securities portfolio reflects a decrease in risk-free interest rates in 2020.

Fair Value. Fair value is defined as the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between willing, able and knowledgeable market participants at the measurement date. Fair value measurements are not adjusted for transaction costs. In addition, a three-tiered hierarchy for inputs is used in management's determination of fair value of financial instruments that emphasizes the use of observable inputs over the use of unobservable inputs by requiring that the observable inputs be used when available. Observable inputs are market participant assumptions based on market data obtained from sources independent of the reporting entity. Unobservable inputs are the reporting entity's own assumptions about market participant assumptions based on the best information available under the circumstances. In assessing the appropriateness of using observable inputs in making our fair value determinations, we consider whether the market for a particular security is "active" or "inactive" based on all the relevant facts and circumstances. A market may be considered to be inactive if there are relatively few recent transactions or if there is a significant decrease in market volume. Furthermore, we consider whether observable transactions are "orderly" or not. We do not consider a transaction to be orderly if there is evidence of a forced liquidation or other distressed condition; as such, little or no weight is given to that transaction as an indicator of fair value. See Note 1 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on our accounting policy on fair value.

The following table presents the carrying values and estimated fair values of our consolidated financial instruments as of December 31, 2020 and 2019:

	December 31, 2020		December 31, 2019	
	Carrying Value	Fair Value	Carrying Value	Fair Value
(\$ in millions)				
Assets				
Investments (excluding equity method investments and loans)(1)	\$ 19,051.9	\$ 19,051.9	\$ 17,632.3	\$ 17,632.3
Liabilities				
Senior Notes and other debt(2)	\$ 2,135.9	\$ 2,468.7	\$ 1,751.1	\$ 1,962.7

(1) This table includes debt and equity securities, as well as partnership and non-marketable equity investments accounted for at fair value that are included in other invested assets. This table excludes investments accounted for using the equity method and commercial mortgage loans that are accounted for at unpaid principal balance. The fair value of short-term investments approximates amortized cost.

(2) See Note 8 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on the senior notes and other debt.

See Note 3 to Notes to Consolidated Financial Statements set forth in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K for additional information on our financial instruments measured at fair value and the level of the fair value hierarchy of inputs used as of December 31, 2020 and 2019.

Municipal Bonds. The following table provides the fair value of our municipal bonds as of December 31, 2020, categorized by state and revenue source. Special revenue bonds are debt securities for which the payment of principal and interest is available solely from the cash flows of the related projects. As issuers of revenue bonds do not have the ability to draw from tax revenues or levy taxes to fund obligations, revenue bonds may carry a greater risk of default than general obligation bonds.

	Special Revenue									Total Special Revenue	Total General Obligation	Total Fair Value
State	Education	Hospital	Housing	Lease Revenue	Special Tax	Transit	Utilities	All Other Sources				
	(\$ in millions)											
New York	\$ —	\$ —	\$ 2.7	\$ 8.4	\$ 117.9	\$ 64.2	\$ 43.1	\$ —	\$ 236.3	\$ 16.1	\$ 252.4	
Texas	13.5	—	0.1	10.3	6.9	23.9	88.6	1.9	145.2	80.6	225.8	
California	6.3	39.7	2.3	7.1	1.3	10.8	54.8	—	122.3	72.0	194.3	
Massachusetts	16.4	5.8	11.0	—	40.4	1.3	21.9	0.3	97.1	67.3	164.4	
Pennsylvania	6.4	0.9	11.7	—	—	33.0	8.5	32.0	92.5	40.6	133.1	
Washington	—	—	1.9	—	3.3	10.9	42.7	2.4	61.2	58.5	119.7	
Ohio	35.8	1.2	3.0	1.2	2.3	0.3	11.9	9.8	65.5	32.7	98.2	
Florida	—	0.3	3.8	—	19.4	43.9	8.8	9.9	86.1	11.4	97.5	
Michigan	4.3	12.9	3.6	10.2	13.0	—	—	4.9	48.9	18.6	67.5	
South Carolina	—	—	—	2.2	2.3	—	5.2	43.0	52.7	12.6	65.3	
All other states	104.3	57.1	38.9	61.5	92.7	69.3	171.9	80.2	675.9	216.2	892.1	
Total	\$ 187.0	\$ 117.9	\$ 79.0	\$ 100.9	\$ 299.5	\$ 257.6	\$ 457.4	\$ 184.4	\$ 1,683.7	\$ 626.6	2,310.3	
Total advanced refunded / escrowed maturity funds												346.5
Total municipal bonds												\$2,656.8

Catastrophe Exposure

Natural or man-made catastrophe events may expose our reinsurance and insurance subsidiaries to underwriting losses across multiple lines of business and, in any given year, could have a material adverse effect on our financial condition, results of operations, cash flows and liquidity. Further, the potential for accumulated losses from multiple events, and uncertainty as to the frequency and severity of such events, present unique challenges for managing risk. Our reinsurance and insurance subsidiaries take certain measures to mitigate the impact of catastrophe events including considering catastrophe risks in their underwriting and pricing decisions, purchasing reinsurance, monitoring and modeling accumulated exposures, and managing exposure in key geographic zones and product lines that are prone to catastrophe events.

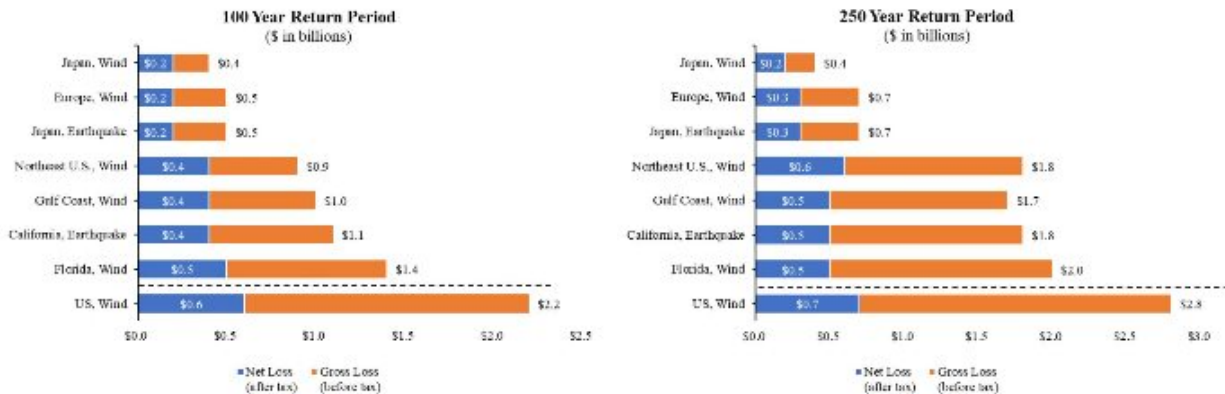
We set and monitor subsidiary and group-level limits to single zone exposures as well as to aggregate exposures from multiple events within any one year and at multiple points along the loss distribution curve. For example, we seek to limit the after-tax impact of all natural catastrophes occurring in any given year, net of related estimated pre-overhead underwriting profit, to 15 percent of Alleghany's stockholders' equity at the 250-year return period (having a likelihood of being exceeded in any single year of 0.4 percent). Our loss estimates for zonal and aggregate catastrophe exposures are updated and reviewed against

tolerances as part of our risk oversight processes on a quarterly basis. Risk tolerances are subject to change based on our view of the risk-return characteristics of business being underwritten.

We assess the probability of occurrence and severity of catastrophe events through the use of industry recognized models and other techniques. Where appropriate, we supplement these models with our own assessment of exposures which, in our view, may not be appropriately captured by these models. There is no single standard methodology or set of industry standard assumptions to project possible losses related to catastrophe exposures and the form and quality of the data obtained, including data obtained from insureds and ceding companies, and used in these models are not uniformly compatible with the data requirements of all models. Therefore, the use of different methodologies and assumptions could materially change the projected losses. Finally, these modeled losses may not be comparable with estimates made by other companies.

Although the analytical tools used to estimate catastrophe exposure are useful in both pricing and monitoring catastrophe risk, the estimates derived by use of these techniques are inherently uncertain and do not reflect our maximum exposures to these events and it is highly likely that our losses will vary, perhaps materially, from these estimates.

Potential catastrophe losses are typically expressed in terms of the probable maximum loss, or “PML.” PMLs may be expressed as Occurrence Exceedance Probability, or “OEP,” which reflect losses that may occur in any single event due to the defined peril in the indicated region, or as Aggregate Exceedance Probability, or “AEP,” which reflect losses from multiple events that may occur in any given year. The following is an overview of such modeled OEP PMLs from property, engineering, marine and energy exposures and the associated natural perils that we deem most significant based upon contracts in force at January 1, 2021 for TransRe and December 1, 2020 for RSUI. In addition to the single zone PMLs, we have added a “U.S. wind” PML to our disclosures which reflects our occurrence PML for the entire U.S. Modeled results also reflect losses arising from certain of our invested assets that have specific catastrophe exposures. The estimated amounts of these modeled losses are presented for both a 100-year return period (having a likelihood of being exceeded in any single year of 1.0 percent) and a 250-year return period (having a likelihood of being exceeded in any single year of 0.4 percent). These modeled losses are presented in two ways: (i) gross catastrophe losses; and (ii) after-tax net catastrophe costs (that is, gross losses, net of reinsurance, net reinstatement premiums and taxes). The reduction for reinsurance assumes that all reinsurers fulfill their obligations in accordance with contract terms. Given the uncertainty of the frequency, severity and location of catastrophe events, we may experience losses significantly larger than the estimated PMLs in any given year.



“Florida, Wind” and “Northeast U.S., Wind” have the highest modeled after-tax net catastrophe costs for a 100 and 250-year return period single zone occurrence, respectively. These costs would represent approximately 5 percent and 6 percent, respectively, of stockholders’ equity attributable to Alleghany as of December 31, 2020, compared with approximately 7 percent and 8 percent, respectively, for the highest modeled after-tax net catastrophe costs for a 100 and 250-year return period single zone occurrence as of December 31, 2019. There is much uncertainty and imprecision in the compilation of these estimates. Moreover, the makeup of our in-force business is constantly changing as new business is added and existing contracts terminate or expire, including contracts for reinsurance coverage purchased by us. In addition, there could be possible scenarios that are not captured in our analysis. Additionally, other risks, such as an outbreak of a pandemic disease, a major terrorist event, the bankruptcy of a major company or a marine and/or aviation disaster, could also have a material adverse effect on our business and operating results.

As a result, there can be no assurance that we will not experience after-tax net catastrophe costs from individual and / or multiple events that will exceed these estimates by a material amount. There also can be no assurance that we will not experience catastrophe events more frequently than the modeled probabilities would suggest.

Recent Accounting Standards

For a discussion of recently adopted accounting standards and future application of accounting standards, see Note 1(r) to Notes to Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Market risk is the risk of loss from adverse changes in market prices and rates. The primary market risk related to our debt securities is the risk of loss associated with adverse changes in interest rates. We hold our debt securities as AFS. Any changes in the fair value in these securities, net of tax, would be recorded as a component of other comprehensive income. However, if a decline in fair value relative to cost is believed to be other than temporary, a loss is generally recorded on our statement of earnings. We also invest in equity securities which are subject to fluctuations in market value. In addition, significant portions of our assets (principally investments) and liabilities (principally loss and LAE reserves and unearned premiums) are exposed to changes in foreign currency exchange rates. The net change in the carrying value of assets and liabilities denominated in foreign currencies is generally recorded as a component of other comprehensive income.

The sensitivity analyses presented below provide only a limited, point-in-time view of the market risk of our financial instruments. The actual impact of changes in market interest rates, equity market prices and foreign currency exchange rates may differ significantly from those shown in these sensitivity analyses. The sensitivity analyses are further limited because they do not consider any actions we could take in response to actual and/or anticipated changes in equity market prices, market interest rates or foreign currency exchange rates. In addition, these sensitivity analyses do not provide weight to risks related to market issues such as liquidity and the credit worthiness of investments.

Interest Rate Risk

The primary market risk for our debt securities is interest rate risk at the time of refinancing. We monitor the interest rate environment to evaluate reinvestment and refinancing opportunities. We generally do not use derivatives to manage market and interest rate risks. The table below presents a sensitivity analysis as of December 31, 2020 of our (i) consolidated debt securities and (ii) senior notes and other debt, which are sensitive to changes in interest rates. Sensitivity analysis is defined as the measurement of potential change in future earnings, fair values or cash flows of market sensitive instruments resulting from one or more selected hypothetical changes in interest rates over a selected time period. In the sensitivity analysis model below, we use a +/- 300 basis point range of change in interest rates to measure the hypothetical change in fair value of the financial instruments included in the analysis. The change in fair value is determined by calculating hypothetical December 31, 2020 ending prices based on yields adjusted to reflect a +/- 300 basis point range of change in interest rates, comparing these hypothetical ending prices to actual ending prices, and multiplying the difference by the par outstanding. The selected hypothetical changes in interest rates do not reflect what could be the potential best or worst case scenarios.

	-300	-200	-100	0	+100	+200	+300
	(\$ in millions)						
Assets:							
Debt securities, fair value	\$ 17,887.9	\$ 17,058.5	\$ 16,290.1	\$ 15,618.5	\$ 14,939.1	\$ 14,264.4	\$ 13,622.5
Estimated change in fair value	2,269.4	1,440.0	671.6	—	(679.4)	(1,354.1)	(1,996.0)
Liabilities:							
Senior Notes and other debt, fair value	\$ 3,097.5	\$ 2,854.8	\$ 2,647.0	\$ 2,468.7	\$ 2,314.5	\$ 2,180.3	\$ 2,062.7
Estimated change in fair value	628.8	386.1	178.3	—	(154.2)	(288.4)	(406.0)

Equity Risk

Our equity securities are subject to fluctuations in market value. The table below presents our equity market price risk and reflects the effect of a hypothetical increase or decrease in market prices as of December 31, 2020 on the estimated fair value of our equity portfolio. The selected hypothetical price changes do not reflect what could be the potential best or worst case scenarios.

As of December 31, 2020				
(\$ in millions)				
Fair Value	Hypothetical Price Change	Estimated Fair Value After Hypothetical Change in Price	Hypothetical Percentage Increase (Decrease) in Stockholders' Equity	
\$ 2,718.9	20% Increase	\$ 3,262.7	4.9%	
	20% Decrease	2,175.1	-4.9%	

In addition to debt and equity securities, we invest in several partnerships which are subject to fluctuations in market value. Our partnership investments are included in other invested assets and are accounted for at fair value or using the equity method, and had a carrying value of \$370.1 million as of December 31, 2020.

Foreign Currency Exchange Rate Risk

Foreign currency exchange rate risk is the potential change in value arising from changes in foreign currency exchange rates. Our reinsurance operations located in foreign countries maintain some or all of their capital in their local currency and conduct business in their local currency, as well as the currencies of the other countries in which they operate. To mitigate this risk, we maintain investments denominated in certain foreign currencies in which the claims payments will be made. As of December 31, 2020, the largest foreign currency net liability exposure for these foreign operations was the Japanese Yen, and the largest foreign currency net asset exposure for these foreign operations was the Canadian Dollar. The table below presents our foreign currency exchange rate risk and shows the effect of a hypothetical increase or decrease in foreign currency exchange rates against the U.S. Dollar as of December 31, 2020 on the estimated net carrying value of our foreign currency denominated assets, net of our foreign currency denominated liabilities. The selected hypothetical changes do not reflect what could be the potential best or worst case scenarios.

As of December 31, 2020 (\$ in millions)				
Fair Value		Hypothetical Price Change	Estimated Fair Value After Hypothetical Change in Price	Hypothetical Percentage Increase (Decrease) in Stockholders' Equity
\$ (86.7) ⁽¹⁾		20% Increase	\$ (104.0)	-0.2%
		20% Decrease	(69.4)	0.2%

(1) Denotes a net liability position as of December 31, 2020.

Item 8. Financial Statements and Supplementary Data.

Index to Consolidated Financial Statements

Alleghany Corporation and Subsidiaries

Description	Page
Report of Independent Registered Public Accounting Firm	128
Consolidated Balance Sheets	130
Consolidated Statements of Earnings and Comprehensive Income	131
Consolidated Statements of Changes in Stockholders' Equity	132
Consolidated Statements of Cash Flows	133
Notes to Consolidated Financial Statements	134
Report of Independent Registered Public Accounting Firm	183

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Alleghany Corporation:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Alleghany Corporation and subsidiaries (the “Company”) as of December 31, 2020 and 2019, the related consolidated statements of earnings and comprehensive income, changes in stockholders’ equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and the financial statement schedules listed in the Index at Item 15(a)(2) (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at 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 U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 23, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter 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 matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Reserves for Incurred But Not Reported (IBNR) Claims

Description of the Matter

At December 31, 2020, the Company's reserves for loss and loss adjustment expenses (LAE) was \$13.0 billion. As discussed in Note 1 of the financial statements, the reserves for loss and LAE represents management's best estimate of the ultimate cost of all reported and unreported losses incurred through the balance sheet date. Reserves for loss and LAE include but are not limited to estimates for incurred but not reported (IBNR) claims based on past experience, modified for current trends, and industry data. The estimation of reserves for IBNR claims is inherently difficult and subjective, and is sensitive to significant assumptions, including the selection of actuarial methods, expected loss ratios, and reported and paid loss emergence patterns, which are affected by actuarial judgment.

Auditing the valuation of the reserve for IBNR claims was complex and required the involvement of our actuarial specialists due to the high degree of judgment in the actuarial methods and assumptions, including expected loss ratios and reported and paid loss emergence patterns, used in the valuation process. These methods and assumptions have a significant effect on the valuation of reserves for IBNR claims.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls that address the risks of material misstatement relating to the valuation of the Company's reserve for IBNR claims. For example, we tested controls over the selection of actuarial methods and significant actuarial assumptions.

To test the estimate of the reserve for IBNR claims, our audit procedures included, among others, evaluating, with the assistance of actuarial specialists, the Company's selection and weighting of actuarial methods compared to methods used in prior periods and in the industry for the specific types of insurance. To evaluate the significant assumptions, including expected loss ratios and loss emergence patterns, we compared the assumptions to factors historically used and current industry benchmarks. We compared the Company's recorded reserve amount to a range of estimates which our actuarial specialist developed based on independently selected methods and assumptions. We also performed a review of the development of prior years' reserve estimates.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2012.

New York, New York

February 23, 2021

ALLEGHANY CORPORATION AND SUBSIDIARIES
Consolidated Balance Sheets

	December 31,	
	2020	2019
	(\$ in thousands, except share amounts)	
Assets		
Investments:		
Securities at fair value:		
Equity securities (cost: 2020 – \$2,051,996; 2019 – \$1,625,256)	\$ 2,718,902	\$ 2,505,496
Debt securities (amortized cost: 2020 – \$14,898,522; 2019 – \$13,798,576; allowance for credit losses: 2020 – \$2,579)	15,618,470	14,211,745
Short-term investments	714,208	914,776
	19,051,580	17,632,017
Commercial mortgage loans	670,239	686,206
Other invested assets	465,153	573,605
Total investments	20,186,972	18,891,828
Cash	791,442	1,179,098
Accrued investment income	88,760	96,516
Premium balances receivable	1,145,341	948,010
Reinsurance recoverables	1,781,096	1,681,962
Ceded unearned premiums	311,898	248,153
Deferred acquisition costs	595,117	522,577
Property and equipment at cost, net of accumulated depreciation and amortization	267,872	205,397
Goodwill	614,163	523,021
Intangible assets, net of amortization	787,462	685,953
Current taxes receivable	3,189	4,081
Net deferred tax assets	—	5,860
Funds held under reinsurance agreements	794,453	755,515
Other assets	1,559,245	1,183,633
Total assets	\$ 28,927,010	\$ 26,931,604
Liabilities, Redeemable Noncontrolling Interests and Stockholders' Equity		
Loss and loss adjustment expenses	\$ 12,970,626	\$ 11,928,359
Unearned premiums	2,984,060	2,566,170
Senior Notes and other debt	2,135,946	1,751,113
Reinsurance payable	208,384	188,399
Net deferred tax liabilities	43,547	—
Other liabilities	1,594,918	1,516,076
Total liabilities	19,937,481	17,950,117
Redeemable noncontrolling interests	233,809	204,753
Common stock (shares authorized: 2020 and 2019 – 22,000,000; shares issued: 2020 and 2019 – 17,459,961)	17,460	17,460
Contributed capital	3,613,454	3,608,638
Accumulated other comprehensive income	452,402	171,350
Treasury stock, at cost (2020 – 3,418,781 shares; 2019 – 3,095,333 shares)	(1,645,930)	(1,455,877)
Retained earnings	6,318,334	6,435,163
Total stockholders' equity attributable to Alleghany stockholders	8,755,720	8,776,734
Total liabilities, redeemable noncontrolling interests and stockholders' equity	\$ 28,927,010	\$ 26,931,604

See accompanying Notes to Consolidated Financial Statements.

ALLEGHANY CORPORATION AND SUBSIDIARIES
Consolidated Statements of Earnings and Comprehensive Income

	2020	December 31, 2019	2018
	(\$ in thousands, except per share amounts)		
Revenues			
Net premiums earned	\$ 6,000,161	\$ 5,478,143	\$ 4,976,190
Net investment income	490,856	550,241	500,534
Change in the fair value of equity securities	(110,459)	709,695	(228,994)
Net realized capital gains	3,098	(6,551)	(3,241)
Change in allowance for credit losses on available for sale securities	(8,029)	(19,660)	(1,328)
Noninsurance revenue	2,521,092	2,328,848	1,643,999
Total revenues	8,896,719	9,040,716	6,887,160
Costs and Expenses			
Net loss and loss adjustment expenses	4,339,046	3,686,435	3,520,431
Commissions, brokerage and other underwriting expenses	1,789,820	1,758,698	1,617,333
Other operating expenses	2,429,262	2,263,326	1,579,309
Corporate administration	48,581	74,830	15,732
Amortization of intangible assets	44,241	33,834	24,039
Interest expense	88,152	99,957	90,724
Total costs and expenses	8,739,102	7,917,080	6,847,568
Earnings before income taxes	157,617	1,123,636	39,592
Income taxes	30,734	233,435	(15,062)
Net earnings	126,883	890,201	54,654
Net earnings attributable to noncontrolling interests	25,129	32,400	15,115
Net earnings attributable to Alleghany stockholders	\$ 101,754	\$ 857,801	\$ 39,539
Net earnings	\$ 126,883	\$ 890,201	\$ 54,654
Other comprehensive income (loss):			
Change in unrealized gains (losses), net of deferred taxes of \$73,643, \$107,115 and (\$56,498) for 2020, 2019 and 2018, respectively	277,040	402,957	(212,539)
Less: reclassification for net realized capital gains and change in allowance for credit losses on available for sale securities, net of taxes of (\$8,801), (\$5,419) and \$3,125 for 2020, 2019 and 2018, respectively	(33,108)	(20,384)	11,757
Change in unrealized currency translation adjustment, net of deferred taxes of \$5,945, \$780 and (\$5,822) for 2020, 2019 and 2018, respectively	22,366	2,933	(21,902)
Retirement plans	14,754	(12,153)	3,071
Comprehensive income (loss)	407,935	1,263,554	(164,959)
Comprehensive income attributable to noncontrolling interests	25,129	32,400	15,115
Comprehensive income (loss) attributable to Alleghany stockholders	\$ 382,806	\$ 1,231,154	\$ (180,074)
Basic earnings per share attributable to Alleghany stockholders	\$ 7.14	\$ 59.44	\$ 2.62
Diluted earnings per share attributable to Alleghany stockholders	7.04	59.39	2.62

See accompanying Notes to Consolidated Financial Statements.

ALLEGHANY CORPORATION AND SUBSIDIARIES

Consolidated Statements of Changes in Stockholders' Equity

	Three Years Ended December 31, 2020						
	Common Stock	Contributed Capital	Accumulated Other Comprehensive Income (loss)	Treasury Stock	Retained Earnings	Total Stockholders' Equity Attributable to Alleghany Shareholders	Redeemable Non- controlling Interests
	(\$ in thousands, except share amounts)						
Balance as of December 31, 2017 (17,459,961 shares of common stock issued; 2,069,461 in treasury)	\$ 17,460	\$ 3,612,109	\$ 618,118	\$ (824,906)	\$ 5,091,282	\$ 8,514,063	\$ 106,530
Add (deduct):							
Cumulative effect of adoption of new accounting pronouncements	—	—	(600,508)	—	600,508	—	—
Net earnings	—	—	—	—	39,539	39,539	15,115
Other comprehensive income (loss), net of tax:						0	
Retirement plans	—	—	3,071	—	—	3,071	—
Change in unrealized appreciation of investments, net	—	—	(200,782)	—	—	(200,782)	—
Change in unrealized currency translation adjustment, net	—	—	(21,902)	—	—	(21,902)	—
Comprehensive income	—	—	(219,613)	—	39,539	(180,074)	15,115
Dividends paid	—	—	—	—	(153,967)	(153,967)	—
Treasury stock repurchase	—	—	—	(491,633)	—	(491,633)	—
Other, net	—	721	—	3,600	—	4,321	48,117
Balance as of December 31, 2018 (17,459,961 shares of common stock issued; 2,883,452 in treasury)	17,460	3,612,830	(202,003)	(1,312,939)	5,577,362	7,692,710	169,762
Add (deduct):							
Net earnings	—	—	—	—	857,801	857,801	32,400
Other comprehensive income (loss), net of tax:							
Retirement plans	—	—	(12,153)	—	—	(12,153)	—
Change in unrealized appreciation of investments, net	—	—	382,573	—	—	382,573	—
Change in unrealized currency translation adjustment, net	—	—	2,933	—	—	2,933	—
Comprehensive income	—	—	373,353	—	857,801	1,231,154	32,400
Treasury stock repurchase	—	—	—	(144,422)	—	(144,422)	—
Other, net	—	(4,192)	—	1,484	—	(2,708)	2,591
Balance as of December 31, 2019 (17,459,961 shares of common stock issued; 3,095,333 in treasury)	17,460	3,608,638	171,350	(1,455,877)	6,435,163	8,776,734	204,753
Add (deduct):							
Cumulative effect of adoption of new accounting pronouncements	—	—	—	—	(3,570)	(3,570)	—
Net earnings	—	—	—	—	101,754	101,754	25,129
Other comprehensive income (loss), net of tax:							
Retirement plans	—	—	14,754	—	—	14,754	—
Change in unrealized appreciation of investments, net	—	—	243,932	—	—	243,932	—
Change in unrealized currency translation adjustment, net	—	—	22,366	—	—	22,366	—
Comprehensive income	—	—	281,052	—	101,754	382,806	25,129
Dividends paid	—	—	—	—	(215,013)	(215,013)	—
Treasury stock repurchase	—	—	—	(194,762)	—	(194,762)	—
Other, net	—	4,816	—	4,709	—	9,525	3,927
Balance as of December 31, 2020 (17,459,961 shares of common stock issued; 3,418,781 in treasury)	\$ 17,460	\$ 3,613,454	\$ 452,402	\$ (1,645,930)	\$ 6,318,334	\$ 8,755,720	\$ 233,809

See accompanying Notes to Consolidated Financial Statements.

ALLEGHANY CORPORATION AND SUBSIDIARIES
Consolidated Statements of Cash Flows

	Year Ended December 31,		
	2020	2019	2018
	(\$ in thousands)		
Cash flows from operating activities			
Net earnings	\$ 126,883	\$ 890,201	\$ 54,654
Adjustments to reconcile net earnings to net cash provided by (used in) operating activities:			
Depreciation and amortization	160,002	119,513	127,374
Change in the fair value of equity securities	110,459	(709,695)	228,994
Net realized capital (gains) losses	(3,098)	6,551	3,241
Change in allowance for credit losses on available for sale securities	8,029	19,660	1,328
(Increase) decrease in reinsurance recoverables, net of reinsurance payable	(79,149)	259,048	(162,499)
(Increase) decrease in premium balances receivable	(197,331)	(105,368)	(45,296)
(Increase) decrease in ceded unearned premiums	(63,745)	(26,921)	(30,980)
(Increase) decrease in deferred acquisition costs	(72,540)	(58,031)	(11,200)
(Increase) decrease in funds held under reinsurance agreements	(38,938)	(11,458)	(38,015)
Increase (decrease) in unearned premiums	417,890	299,092	84,784
Increase (decrease) in loss and loss adjustment expenses	1,042,267	(321,935)	379,044
Change in unrealized foreign currency exchange rate losses (gains)	(99,134)	(18,033)	84,089
Other, net	(274,761)	371,781	(273,095)
Net adjustments	909,951	(175,796)	347,769
Net cash provided by (used in) operating activities	1,036,834	714,405	402,423
Cash flows from investing activities			
Purchases of debt securities	(6,721,073)	(6,726,809)	(4,716,070)
Purchases of equity securities	(1,974,625)	(520,961)	(1,041,887)
Sales of debt securities	4,042,915	3,645,307	3,647,156
Maturities and redemptions of debt securities	1,664,285	1,166,841	1,526,060
Sales of equity securities	1,659,234	2,296,371	1,609,647
Net (purchases) sales of short-term investments	208,263	(21,564)	(316,366)
Net (purchases) sales and maturities of commercial mortgage loans	15,967	(9,674)	(18,168)
(Purchases) sales of property and equipment	(37,519)	(47,572)	(23,286)
Purchases of affiliates and subsidiaries, net of cash acquired	(128,921)	(218,260)	(235,176)
Other, net	(12,973)	(40,218)	(86,478)
Net cash provided by (used in) investing activities	(1,284,447)	(476,539)	345,432
Cash flows from financing activities			
Repayment of senior notes	(307,095)	—	—
Treasury stock acquisitions	(194,762)	(144,422)	(491,633)
Proceeds from issuance of senior notes	499,335	—	—
Debt issue costs paid	(4,550)	—	—
Increase (decrease) in other debt	85,989	81,738	104,404
Cash dividends paid	(215,013)	—	(153,967)
Other, net	(27,912)	(40,530)	4,512
Net cash provided by (used in) financing activities	(164,008)	(103,214)	(536,684)
Effect of foreign exchange rate changes on cash	23,965	5,683	(10,783)
Net (decrease) increase in cash	(387,656)	140,335	200,388
Cash at beginning of period	1,179,098	1,038,763	838,375
Cash at end of period	\$ 791,442	\$ 1,179,098	\$ 1,038,763
Supplemental disclosures of cash flow information			
Cash paid during period for:			
Interest paid	\$ 91,832	\$ 97,016	\$ 88,345
Income taxes paid (refund received)	90,828	61,786	33,677

See accompanying Notes to Consolidated Financial Statements.

1. Summary of Significant Accounting Principles

(a) Principles of Financial Statement Presentation

Alleghany Corporation (“Alleghany”), a Delaware corporation, owns and supports certain operating subsidiaries and manages investments, anchored by a core position in property and casualty reinsurance and insurance. Through its wholly-owned subsidiary Transatlantic Holdings, Inc. (“TransRe”), an Alleghany subsidiary since March 2012, Alleghany is engaged in the property and casualty reinsurance business. Through its wholly-owned subsidiary Alleghany Insurance Holdings LLC (“AIHL”), Alleghany is engaged in the property and casualty insurance business. AIHL’s insurance operations are principally conducted by its subsidiaries RSUI Group, Inc. (“RSUI”) and CapSpecialty, Inc. (“CapSpecialty”). RSUI and CapSpecialty have been subsidiaries of AIHL since July 2003 and January 2002, respectively. AIHL Re LLC (“AIHL Re”), a captive reinsurance company which provides reinsurance to Alleghany’s current and former insurance operating subsidiaries and affiliates, has been a subsidiary of Alleghany since its formation in May 2006.

Although Alleghany’s primary sources of revenues and earnings are its reinsurance and insurance operations and investments, Alleghany also generates revenues and expenses from a diverse portfolio of non-financial businesses that are owned and supported through its wholly-owned subsidiary Alleghany Capital Corporation (“Alleghany Capital”). Alleghany Capital’s businesses include:

- Precision Cutting Technologies, Inc. (“PCT”), a holding company headquartered in Rockford, Illinois, with four operating businesses: (i) Bourn & Koch, Inc., a provider of precision automated machine tool solutions; (ii) Diamond Technology Innovations, Inc., a manufacturer of waterjet orifices and nozzles and a provider of related services; (iii) Coastal Industrial Distributors, LLC, a provider of high-performance solid carbide end mills; and (iv) as of March 2020, Supermill LLC, a manufacturer of high-performance carbide end mills;
- R.C. Tway Company, LLC (“Kentucky Trailer”), a manufacturer of custom trailers and truck bodies for the moving and storage industry and other markets, headquartered in Louisville, Kentucky;
- IPS-Integrated Project Services, LLC (“IPS”), a design, engineering, procurement, construction management and validation service provider focused on the global pharmaceutical and biotechnology industries, headquartered in Blue Bell, Pennsylvania;
- Jazwares, LLC (together with its affiliates, “Jazwares”), a global toy and musical instrument company, headquartered in Sunrise, Florida;
- WWSC Holdings, LLC (“W&W|AFCO Steel”), a structural steel fabricator and erector, headquartered in Oklahoma City, Oklahoma;
- CHECO Holdings, LLC (“Concord”), a hotel management and development company, headquartered in Raleigh, North Carolina; and
- Wilbert Funeral Services, Inc. (“Wilbert”), a provider of products and services for the funeral and cemetery industries and precast concrete markets, headquartered in Overland Park, Kansas.

The results of Concord have been included in Alleghany’s consolidated results beginning with its acquisition by Alleghany Capital on October 1, 2018.

On April 1, 2020, Alleghany Capital acquired an additional approximately 55 percent of Wilbert it previously did not own, bringing its equity interest in Wilbert to approximately 100 percent, and as of that date, the results of Wilbert were included in Alleghany’s consolidated results. Prior to April 1, 2020, Wilbert was accounted for under the equity method of accounting and was included in other invested assets.

In addition, Alleghany owns certain other holding-company investments. Alleghany’s wholly-owned subsidiary, Alleghany Properties Holdings LLC (“Alleghany Properties”) owns and manages certain properties in the Sacramento, California region. Alleghany’s public equity investments are managed primarily through Alleghany’s wholly-owned subsidiary Roundwood Asset Management LLC. Prior to its December 31, 2020 sale, Stranded Oil Resources Corporation (“SORC”) was a wholly-owned subsidiary. Headquartered in Golden, Colorado, SORC is an exploration and production company focused on enhanced oil recovery.

Unless the context otherwise requires, references to “Alleghany” include Alleghany together with its subsidiaries.

The accompanying consolidated financial statements include the results of Alleghany and its wholly-owned and majority-owned subsidiaries and have been prepared in accordance with accounting principles generally accepted in the U.S. (“GAAP”). All material inter-company balances and transactions have been eliminated in consolidation.

The portion of stockholders' equity, net earnings and comprehensive income that is not attributable to Alleghany stockholders is presented on the consolidated balance sheets, the consolidated statements of earnings and comprehensive income and the consolidated statements of changes in stockholders' equity as noncontrolling interests. Because all noncontrolling interests have the option to sell their ownership interests to Alleghany in the future (generally through 2024), the portion of stockholders' equity that is not attributable to Alleghany stockholders is presented on the consolidated balance sheets and the consolidated statements of changes in stockholders' equity as redeemable noncontrolling interests for all periods presented. In addition, Alleghany accretes the redeemable noncontrolling interests up to their future estimated redemption value over the period from the date of issuance to the earliest redemption date. The redemption value of the equity interests is generally based on the subsidiary's earnings in specified periods preceding the applicable redemption date, calculated based on either a specified formula or an independent fair market valuation. During 2020, the noncontrolling interests outstanding were approximately as follows: Kentucky Trailer - 23 percent; IPS - 15 percent; Jazwares - 24 percent; W&W/AFCO Steel - 20 percent; and Concord - 15 percent. Prior to April 1, 2019, the noncontrolling interests of PCT were approximately 11 percent. All noncontrolling interest holders of PCT have exercised their repurchase options and sold their ownership interests to PCT effective April 1, 2019.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting period. Alleghany relies on historical experience and on various other assumptions that it believes to be reasonable under the circumstances to make judgments about the carrying value of assets and liabilities and reported revenues and expenses that are not readily apparent from other sources. Actual results may differ materially from those reported results to the extent that those estimates and assumptions prove to be inaccurate. Changes in estimates are reflected in the consolidated statements of earnings and comprehensive income in the period in which the changes are made.

(b) Investments

Investments consist of debt securities, equity securities, short-term investments, commercial mortgage loans and other invested assets. Alleghany considers all of its marketable debt securities and short-term investments as available-for-sale ("AFS"). Debt securities consist of securities with an initial fixed maturity of more than one year. Debt securities typically take the form of bonds and redeemable preferred stock. Equity securities generally consist of securities that represent ownership interests in an enterprise. Equity securities typically take the form of common stock or perpetual preferred stock. Mutual funds and exchange-traded securities are also classified as equity securities, including those that invest mostly in debt securities. Commencing January 1, 2018, all marketable equity securities are measured at fair value with changes in fair value recognized in net earnings, and prior to that date, were considered AFS. Short-term investments include commercial paper, certificates of deposit, money market instruments and any fixed maturity investment with an initial maturity of one year or less.

AFS securities are recorded at fair value. Unrealized gains and losses during the year, net of the related tax effect, for AFS securities are excluded from earnings and reflected in comprehensive income, and the cumulative effect is reported as a separate component of stockholders' equity until realized. Credit losses for AFS securities are recorded through an allowance for credit losses. Changes in the allowance for credit losses are recorded for (or as a reversal of) credit losses on AFS securities. Credit losses on an AFS security cannot exceed the amount by which the fair value of the security is less than its amortized cost. Any portion of a decline in fair value related to a debt security that is believed to arise from factors other than credit is recorded as a component of other comprehensive income rather than charged against earnings.

Commercial mortgage loans are carried at unpaid principal balance, less an allowance for credit losses. Credit losses for commercial mortgage loans are recorded through an allowance for credit losses. Estimates of expected credit losses are based on historical experience, current conditions and reasonable and supportable forecasts, and include an ongoing review of amounts outstanding, the creditworthiness of the borrower, value of the real estate collateral and other relevant factors. Amounts deemed to be uncollectible are written off against the allowance. Subsequent reversals in credit loss estimates are recognized in earnings. Interest income on loans is accrued as earned.

Other invested assets include invested assets not identified above, primarily related to: (i) equity investments in operating companies where Alleghany has significant influence (an aggregate common stock position held at or above 20 percent is presumed to convey significant influence); (ii) partnership investments (including hedge funds and private equity funds); and (iii) non-marketable equity investments. Equity investments in operating companies where Alleghany has significant influence are accounted for using the equity method. Partnership investments are accounted for at fair value, with changes in fair value recognized in net earnings, or using the equity method where Alleghany has significant influence. Non-marketable equity investments are accounted for at fair value, with changes in fair value recognized in net earnings.

Net realized gains and losses on investments are determined in accordance with the specific identification method.

Net investment income consists primarily of: (i) interest income from debt securities, short-term investments, commercial mortgage loans, funds withheld by cedants and cash, including any premium amortization or discount accretion; (ii) dividend

income from equity securities; and (iii) investment income from other invested assets, which includes results arising from partnership investments, whether accounted for under the equity method or at fair value. Interest income is accrued when earned.

Premiums and discounts arising from the purchase of certain debt securities are treated as a yield adjustment over the estimated useful life of the securities, adjusted for anticipated prepayments using the retrospective interest method. Under this method, the effective yield on a security is estimated. Such estimates are based on the prepayment terms of the security, past actual cash flows and assumptions as to future expected cash flow. The future expected cash flow assumptions consider various prepayment assumptions based on historical experience, as well as current market conditions. Periodically, the effective yield is re-estimated to reflect actual prepayments and updated future expected cash flow assumptions. Upon a re-estimation, a security's book value is restated at the most recently calculated effective yield, assuming that yield had been in effect since the security was purchased. This treatment results in an increase or decrease to net investment income (accretion of premium or amortization of discount) at the new measurement date. With respect to callable debt securities purchased at a premium to par value, the amortization period for that premium is the earliest call date.

See Note 4 for additional information regarding investments.

(c) Fair value

Fair value is defined as the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between willing, able and knowledgeable market participants at the measurement date. Fair value measurements are not adjusted for transaction costs. In addition, a three-tiered hierarchy for inputs is used in management's determination of fair value of financial instruments that emphasizes the use of observable inputs over the use of unobservable inputs by requiring that the observable inputs be used when available. Observable inputs are market participant assumptions based on market data obtained from sources independent of the reporting entity. Unobservable inputs are the reporting entity's own assumptions about market participant assumptions based on the best information available under the circumstances. In assessing the appropriateness of using observable inputs in making its fair value determinations, Alleghany considers whether the market for a particular security is "active" or "inactive" based on all the relevant facts and circumstances. A market may be considered to be inactive if there are relatively few recent transactions or if there is a significant decrease in market volume. Furthermore, Alleghany considers whether observable transactions are "orderly" or not. Alleghany does not consider a transaction to be orderly if there is evidence of a forced liquidation or other distressed condition; as such, little or no weight is given to that transaction as an indicator of fair value.

Although Alleghany is responsible for the determination of the fair value of its financial assets and the supporting methodologies and assumptions, it employs third-party valuation service providers to gather, analyze and interpret market information and derive fair values based upon relevant methodologies and assumptions for individual instruments. When those providers are unable to obtain sufficient market observable information upon which to estimate the fair value for a particular security, fair value is determined either by requesting a quote, which is generally non-binding, from brokers who are knowledgeable about these securities or by employing widely accepted valuation models.

Valuation service providers typically obtain data about market transactions and other key valuation model inputs from multiple sources and, through the use of widely accepted valuation models, provide a single fair value measurement for individual securities for which a fair value has been requested under the terms of service agreements. The inputs used by the valuation service providers include, but are not limited to, market prices from recently completed transactions and transactions of comparable securities, interest rate yield curves, credit spreads, currency rates and other market observable information, as applicable. The valuation models take into account, among other things, market observable information as of the measurement date as well as the specific attributes of the security being valued including its term, interest rate, credit rating, industry sector and, when applicable, collateral quality and other issue or issuer specific information. When market transactions or other market observable data is limited, the extent to which judgment is applied in determining fair value is greatly increased.

The three-tiered hierarchy used in management's determination of fair value is broken down into three levels based on the reliability and observability of inputs as follows:

- Level 1: Valuations are based on unadjusted quoted prices in active markets that Alleghany has the ability to access for identical, unrestricted assets and do not involve any meaningful degree of judgment. An active market is defined as a market where transactions for the financial instrument occur with sufficient frequency and volume to provide pricing information on an ongoing basis. Alleghany's Level 1 assets include publicly traded common stocks and mutual funds (which are included on the consolidated balance sheet in equity securities) where Alleghany's valuations are based on quoted market prices.
- Level 2: Valuations are based on direct and indirect observable inputs other than quoted market prices included in Level 1. Level 2 inputs include quoted prices for similar assets in active markets and inputs other than quoted prices that are observable for the asset, such as the terms of the security and market-based inputs. Terms of the security include coupon, maturity date and any special provisions that may, for example, enable the investor, at its election, to redeem the security prior to its scheduled maturity date (such provisions may apply to all debt

securities except U.S. Government obligations). Market-based inputs include interest rates and yield curves that are observable at commonly quoted intervals and current credit rating(s) of the security. Market-based inputs may also include credit spreads of all debt securities except U.S. Government obligations, and currency rates for certain foreign government obligations and foreign corporate bonds denominated in foreign currencies. Fair values are determined using a market approach that relies on the securities' relationships to quoted prices for similar assets in active markets, as well as the other inputs described above. In determining the fair values for the vast majority of commercial mortgage-backed securities ("CMBS") and other asset-backed securities, as well as a small portion of residential mortgage-backed securities ("RMBS"), an income approach is used to corroborate and further support the fair values determined by the market approach. The income approach primarily involves developing a discounted cash flow model using the future projected cash flows of the underlying collateral, and the terms of the security. Level 2 assets generally include short-term investments and most debt securities. Alleghany's Level 2 liabilities consist of the Senior Notes, as defined in Note 1(n).

- Level 3: Valuations are based on techniques that use significant inputs that are unobservable. The valuation of Level 3 assets requires the greatest degree of judgment. These measurements may be made under circumstances in which there is little, if any, market activity for the asset. Alleghany's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment. In making the assessment, Alleghany considers factors specific to the asset. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy within which the fair value measurement is classified is determined based on the lowest level input that is significant to the fair value measurement in its entirety. Assets classified as Level 3 principally include other asset-backed securities (primarily, collateralized loan obligations) and, to a lesser extent, U.S. and foreign corporate bonds (including privately issued securities), CMBS and commercial mortgage loans.

Mortgage-backed and asset-backed securities are initially valued at the transaction price. Subsequently, Alleghany uses widely accepted valuation practices that produce a fair value measurement. The vast majority of fair values are determined using an income approach. The income approach primarily involves developing a discounted cash flow model using the future projected cash flows of the underlying collateral, as well as other inputs described below. A few Level 3 valuations are based entirely on non-binding broker quotes. These securities consist primarily of mortgage-backed and asset-backed securities where reliable pool and loan level collateral information cannot be reasonably obtained, and as such, an income approach is not feasible.

Since Level 3 valuations are based on techniques that use significant inputs that are unobservable with little or no market activity, the fair values under the market approach for Level 3 securities are less credible than under the income approach; however, the market approach, where feasible, is used to corroborate the fair values determined by the income approach. The market approach primarily relies on the securities' relationships to quoted transaction prices for similarly structured instruments. To the extent that transaction prices for similarly structured instruments are not available for a particular security, other market approaches are used to corroborate the fair values determined by the income approach, including option adjusted spread analyses.

Unobservable inputs, significant to the measurement and valuation of mortgage-backed and asset-backed securities, are generally used in the income approach, and include assumptions about prepayment speed and collateral performance, including default, delinquency and loss severity rates. Significant changes to any one of these inputs, or combination of inputs, could significantly change the fair value measurement for these securities.

The impact of prepayment speeds on fair value is dependent on a number of variables including whether the securities were purchased at a premium or discount. A decrease in interest rates generally increases the assumed rate of prepayments, and an increase in interest rates generally decreases the assumed speed of prepayments. Increased prepayments increase the yield on securities purchased at a discount and reduce the yield on securities purchased at a premium. In a decreasing prepayment environment, yields on securities purchased at a discount are reduced but are increased for securities purchased at a premium. Changes in default assumptions on underlying collateral are generally accompanied by directionally similar changes in other collateral performance factors, but generally result in a directionally opposite change in prepayment assumptions.

Alleghany's Level 3 liabilities consist of the debt of Alleghany Capital's operating subsidiaries.

Alleghany employs specific control processes to determine the reasonableness of the fair values of its financial assets and liabilities. Alleghany's processes are designed to ensure that the values received or internally estimated are accurately recorded and that the data inputs and the valuation techniques used are appropriate, consistently applied and that the assumptions are reasonable and consistent with the objective of determining fair value. Alleghany assesses the reasonableness of individual security values received from valuation service providers through various analytical techniques. In addition, Alleghany validates the reasonableness of fair values by comparing information obtained from Alleghany's valuation service providers to other third-party valuation sources for selected securities. Alleghany also validates prices obtained from brokers for selected securities

through reviews by those who have relevant expertise and who are independent of those charged with executing investing transactions.

In addition to such procedures, Alleghany reviews the reasonableness of its classification of securities within the three-tiered hierarchy to ensure that the classification is consistent with GAAP.

See Note 3 for additional information regarding fair value.

(d) Cash

Cash includes all deposit balances with a bank that are available for immediate withdrawal, whether interest-bearing or non-interest bearing.

(e) Premiums and Unearned Premiums

Premiums are recognized as revenue on a pro rata basis over the term of an insurance policy. Assumed reinsurance premiums written and earned are based on reports received from ceding companies for pro rata treaty contracts and are generally recorded as written based on contract terms for excess-of-loss treaty contracts. Premiums are earned ratably over the terms of the related coverages.

Unearned premiums and ceded unearned premiums represent the portion of gross premiums written and ceded premiums written, respectively, related to the unexpired periods of such coverages. Assumed reinsurance premiums written and earned, along with related costs, for which data has not been reported by the ceding companies, are estimated based on historical patterns and other relevant factors. These estimates may change when actual data for such estimated items becomes available.

Premium balances receivable are reported net of an allowance for credit losses. Estimates of expected credit losses are based on historical experience, current conditions and reasonable and supportable forecasts, and include an ongoing review of amounts outstanding, length of collection periods, the creditworthiness of the insured and other relevant factors. Amounts deemed to be uncollectible are written off against the allowance. Subsequent reversals are recognized in earnings.

(f) Reinsurance Ceded

Reinsurance is used to mitigate the exposure to losses, manage capacity and protect capital resources. Reinsuring loss exposures does not relieve a ceding entity from its obligations to policyholders and cedants. Reinsurance recoverables (including amounts related to incurred but not reported (“IBNR”) claims) and ceded unearned premiums are reported as assets. To minimize exposure to losses related to a reinsurer’s inability to pay, the financial condition of such reinsurer is evaluated initially upon placement of the reinsurance and periodically thereafter. In addition to considering the financial condition of a reinsurer, the collectability of the reinsurance recoverables is evaluated based upon a number of other factors. Such factors include the amounts outstanding, length of collection periods, disputes, any collateral or letters of credit held and other relevant factors. Credit losses for reinsurance recoverables are recorded through an allowance for credit losses. Estimates of expected credit losses are based on historical experience, current conditions and reasonable and supportable forecasts. Amounts deemed to be uncollectible are written off against the allowance. Subsequent reversals in credit loss estimates are recognized in earnings.

Ceded premiums written are recorded in accordance with the applicable terms of the various reinsurance contracts and ceded premiums earned are charged against revenue over the period of the various reinsurance contracts. This also generally applies to reinstatement premiums paid to a reinsurer, which arise when contractually-specified ceded loss triggers have been breached. Ceded commissions reduce commissions, brokerage and other underwriting expenses and ceded losses incurred reduce net loss and loss adjustment expenses (“LAE”) incurred over the applicable periods of the various reinsurance contracts with third-party reinsurers. If premiums or commissions are subject to adjustment (for example, retrospectively-rated or experience-rated), the estimated ultimate premium or commission is recognized over the period of the contract.

Amounts recoverable from reinsurers are estimated in a manner consistent with the claim liability associated with the reinsured business and consistent with the terms of the underlying reinsurance contract.

See Note 5 for additional information on reinsurance ceded and reinsurance recoverables.

(g) Deferred Acquisition Costs

Acquisition costs related to unearned premiums that vary with, and are directly related to, the production of such premiums are deferred. Furthermore, such deferred costs: (i) represent only incremental, direct costs associated with the successful acquisition of a new or renewal insurance or reinsurance contract; (ii) are essential to the contract transaction; (iii) would not have been incurred had the contract transaction not occurred; and (iv) are related directly to the acquisition activities involving underwriting, policy issuance and processing. Acquisition costs principally relate to commissions. To a lesser extent, acquisition costs can include premium taxes and certain qualifying underwriting expenses. For insurance policies written, acquisition costs are generally incurred directly and include commissions, premium taxes and certain qualifying underwriting expenses. For reinsurance contracts written, acquisition costs are generally incurred through brokerage commissions and indirectly through ceding commissions, which are deferred. Deferred acquisition costs are amortized to expense as the related

premiums are earned, generally over a period of one year. Deferred acquisition costs are reviewed at least annually to determine their recoverability from future income, including investment income. If any such costs are determined not to be recoverable they are charged to expense.

Anticipated net loss and LAE and estimated remaining costs of servicing the contracts are considered when evaluating recoverability of deferred acquisition costs.

(h) Property and Equipment

Property and equipment is carried at cost, net of accumulated depreciation and amortization. Depreciation of buildings and equipment is principally calculated using the straight-line method over the estimated useful life of the respective assets. Estimated useful lives for such assets range from three to 20 years. Amortization of leasehold improvements is principally calculated using the straight-line method over the estimated useful life of the leasehold improvement or the life of the lease, whichever is less. Rental expense on operating leases is recorded on a straight-line basis over the term of the lease, regardless of the timing of actual lease payments.

Commencing January 1, 2019, all leases with terms of more than one year are recorded as lease liabilities and corresponding right-of-use assets, and are recorded as a component of other liabilities and other assets, respectively.

See Note 12(b) for further information on Alleghany's leases.

(i) Goodwill and Other Intangible Assets

Goodwill and other intangible assets, net of amortization, are recorded as a consequence of business acquisitions. Goodwill represents the excess, if any, of the amount paid to acquire subsidiaries and other businesses over the fair value of their net assets as of the date of acquisition. Other intangible assets are recorded at their fair value as of the acquisition date. A significant amount of judgment is needed to determine the fair value as of the date of acquisition of other intangible assets and the net assets acquired in a business acquisition. The determination of the fair value of other intangible assets and net assets often involves the use of valuation models and other estimates, which involve many assumptions and variables and are inherently subjective. The fair value estimates may include the use of financial projections and discount rates. Other intangible assets that are not deemed to have an indefinite useful life are amortized over their estimated useful lives. Goodwill and intangible assets that have an indefinite useful life are not subject to amortization.

Goodwill and other intangible assets deemed to have an indefinite useful life are tested annually for impairment in the fourth quarter. Goodwill and other intangible assets are also tested whenever events and changes in circumstances suggest that the carrying amount may not be recoverable. A significant amount of judgment is required in performing goodwill and other intangible asset impairment tests. These tests may include estimating the fair value of Alleghany's operating subsidiaries, which include Alleghany Capital's operating subsidiaries, and other intangible assets. The fair value estimates may include the use of financial projections and discount rates. If it is determined that an asset has been impaired, the asset is written down by the amount of the impairment, with a corresponding charge to net earnings. Subsequent reversal of any impairment charge is not permitted.

With respect to goodwill, a qualitative assessment is first made to determine whether it is necessary to perform quantitative testing. This initial assessment includes, among other factors, consideration of: (i) past, current and projected future earnings and equity; (ii) recent trends and market conditions; and (iii) valuation metrics involving similar companies that are publicly-traded and acquisitions of similar companies, if available. If this initial qualitative assessment indicates that the fair value of an operating subsidiary may be less than its carrying amount, a second step is taken, involving a comparison between the estimated fair value of the operating subsidiary with its respective carrying amount including goodwill. Under GAAP, fair value refers to the amount for which the entire operating subsidiary may be bought or sold. The methods for estimating the fair value of an operating subsidiary values include asset and liability fair values and other valuation techniques, such as discounted cash flows and multiples of earnings or revenues. All of these methods involve significant estimates and assumptions. If the carrying value exceeds estimated fair value, an impairment charge is recognized for the amount by which the carrying amount of the operating subsidiary exceeds its estimated fair value. Any resulting impairment loss recognized cannot exceed the total amount of goodwill associated with the operating subsidiary.

See Note 2 for additional information on goodwill and other intangible assets.

(j) Income Taxes

Alleghany files a consolidated federal income tax return with its subsidiaries. Alleghany's consolidated federal income tax return includes as part of its taxable income all items of income of non-U.S. subsidiaries that are subject to current U.S. income tax, currently pursuant to provisions of the Internal Revenue Code. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amount of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry-forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be

recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Current tax liabilities or assets are recognized for the estimated taxes payable or refundable on tax returns for the current year.

A valuation allowance is provided when it is more likely than not that some portion of the deferred tax assets will not be realized. This determination is based upon a review of all available information, both positive and negative, including Alleghany's earnings history, the timing, character and amount of future earnings potential, the reversal of taxable temporary differences and the tax planning strategies available.

See Note 9 for additional information on income taxes.

(k) Loss Reserves

The reserves for loss and LAE represent management's best estimate of the ultimate cost of all reported and unreported losses incurred through the balance sheet date.

The reserves for loss and LAE include but are not limited to: (i) reports and individual case estimates received from ceding companies with respect to assumed reinsurance business; (ii) the accumulation of individual estimates for claims reported with respect to direct insurance business; (iii) estimates for IBNR claims based on past experience, modified for current trends and industry data; and (iv) estimates of expenses for investigating and settling claims based on past experience. The methods used to determine such estimates and to establish the resulting reserves are continually reviewed and updated. Any adjustments are reflected in current income. Net loss and LAE consist of the estimated ultimate cost of settling claims incurred within the reporting period (net of related reinsurance recoverable), including IBNR claims, plus changes in estimates of prior period losses.

The estimation of the liability for unpaid loss and LAE is inherently difficult and subjective, especially in view of changing legal and economic environments that impact the development of loss reserves, and therefore, quantitative techniques frequently have to be supplemented by subjective considerations and managerial judgment. In addition, trends that have affected development of liabilities in the past may not necessarily occur or affect liability development to the same degree in the future.

While the reserving process is difficult for the insurance business, the inherent uncertainties of estimating loss reserves are even greater for the reinsurance business, due primarily to the longer-term nature of most of the business, the diversity of development patterns among different types of reinsurance contracts, the necessary reliance on the ceding companies for information regarding reported claims and differing reserving practices among ceding companies, which may change without notice. TransRe writes a significant amount of non-proportional assumed casualty reinsurance as well as proportional assumed reinsurance of excess liability business. Claims from such classes can exhibit greater volatility over time than most other classes due to their low frequency, high severity nature and loss cost trends that are more difficult to predict. Net loss and LAE also include amounts for risks related to asbestos-related illness and environmental impairment.

Each of Alleghany's reinsurance and insurance subsidiaries establishes reserves on its balance sheet for unpaid loss and LAE related to its property and casualty reinsurance and insurance contracts. As of any balance sheet date, there are claims that have not yet been reported, and some claims may not be reported for many years after the date a loss occurs. As a result of this historical pattern, the liability for unpaid loss and LAE includes significant estimates for IBNR claims. Additionally, reported claims are in various stages of the settlement process. Each claim is settled individually based upon its merits, and certain claims may take years to settle, especially if legal action is involved. As a result, the liabilities for unpaid loss and LAE include significant judgments, assumptions and estimates made by management related to the actual ultimate losses that will arise from the claims.

As noted above, as of any balance sheet date, not all claims that have occurred have been reported to Alleghany, and if reported may not have been settled. The time period between the occurrence of a loss and the time it is settled is referred to as the "claim tail." Reported losses for the shorter-tailed classes, such as property, generally reach the ultimate level of incurred losses in a relatively short period of time and as such, are only relevant for the more recent accident years.

Casualty claims can have a very long claim tail, in certain situations extending for many years. In addition, casualty claims are more susceptible to litigation and the legal environment and can be significantly affected by changing contract interpretations, all of which contribute to extending the claim tail. For long-tail casualty lines of business, estimating the ultimate liabilities for unpaid loss and LAE is a more complex process and depends on a number of factors, including the line and volume of the business involved.

Alleghany's loss reserve review processes use actuarial methods that vary by operating subsidiary and line of business and produce point estimates for each class of business. The actuarial methods used include the following methods:

- *Reported Loss Development Method:* a reported loss development pattern is calculated based on historical loss development data, and this pattern is then used to project the latest evaluation of cumulative reported losses for each accident year or underwriting year, as appropriate, to ultimate levels;

- *Paid Development Method*: a paid loss development pattern is calculated based on historical paid loss development data, and this pattern is then used to project the latest evaluation of cumulative paid losses for each accident year or underwriting year, as appropriate, to ultimate levels;
- *Expected Loss Ratio Method*: expected loss ratios are applied to premiums earned, based on historical company experience, or historical insurance industry results when company experience is deemed not to be sufficient; and
- *Bornhuetter-Ferguson Method*: the results from the Expected Loss Ratio Method are essentially blended with either the Reported Loss Development Method or the Paid Development Method.

See Note 6 and Note 12(c) for additional information on loss reserves.

(l) Earnings Per Share of Common Stock Attributable to Alleghany Stockholders

Basic earnings per share of common stock is based on the average number of shares of outstanding common stock, par value \$1.00 per share, of Alleghany ("Common Stock") during the period, retroactively adjusted for stock dividends, where applicable. Diluted earnings per share of Common Stock are based on those shares used to calculate basic earnings per share of Common Stock plus the dilutive effect of stock-based compensation awards, retroactively adjusted for stock dividends, where applicable.

See Note 11 for additional information on earnings per share.

(m) Stock-Based Compensation Plans

The cost resulting from all stock-based compensation transactions is recognized in the financial statements, with fair value as the measurement objective in accounting for stock-based compensation arrangements. The fair value-based measurement method applies in accounting for stock-based compensation transactions with employees. Non-employee directors are treated as employees for accounting purposes.

See Note 14 for information on Alleghany's long-term compensation plans, which include stock-based compensation plans.

(n) Senior Notes and Other Debt

Debt consists of senior notes issued by Alleghany (the "Alleghany Senior Notes"), senior notes issued by TransRe (the "TransRe Senior Notes," and together with the Alleghany Senior Notes, the "Senior Notes") and other debt. Other debt consists primarily of borrowings at Alleghany Capital's subsidiaries, and is generally used to fund acquisitions and support working capital needs. The Senior Notes and other debt are carried at unpaid principal balance, including any unamortized premium or discount and any unamortized debt issuance costs.

See Note 8 for additional information on the Senior Notes and other debt.

(o) Currency Translation

Assets and liabilities denominated in foreign currencies are translated into U.S. dollars at period-end exchange rates. Income and expense accounts are translated at average exchange rates for the year. The resulting unrealized currency translation gain or loss for functional currencies is recorded, net of tax, in accumulated other comprehensive income, a component of stockholders' equity.

Transaction gains and losses on assets and liabilities denominated in foreign currencies are recorded as a component of net realized capital gains during the period in which they occur.

(p) Noninsurance Revenue and Other Operating Expenses

Noninsurance revenues relate primarily to manufactured products and services sold by Alleghany Capital's subsidiaries. Manufactured products primarily include fabricated steel, toys, trailers, machine tools and funeral products. Services primarily include facility design, construction management, technical services and hotel management and development. Noninsurance revenues and related operating expenses arising from the sale of manufactured goods and services are generally recognized as the transfer of goods and services to customers takes place. Payment terms for products and services vary by the type of product or service offered. Noninsurance revenues reflect the payment or payments that are expected to be received from the customers for those goods and services. Other operating expenses consist of the cost of goods and services sold and selling, general and administrative expenses. Other operating expenses also include: (i) advertising and marketing costs; and (ii) finders' fees, legal and accounting costs and other transaction-related expenses, all of which are recognized as incurred.

Noninsurance revenues and related operating expenses from manufactured products are generally recognized at the time title transfers to the customer, which typically occurs at the point of shipment or delivery to the customer, depending on the terms of the sales arrangement. For certain products, partial payment in the form of a deposit is required before the products are delivered to the customer and such deposits are recorded as a component of other liabilities. For certain manufactured products,

customers are provided one or more of the following programs: (i) sales incentives; (ii) support for customer promotions; and (iii) allowances for returns or defective merchandise. Estimates for the cost of these programs are recorded as revenue adjustments that reduce revenue in the period the related sale is recognized.

Noninsurance revenues and related operating expenses from services are generally recognized as the services are performed. Services provided pursuant to a contract are recognized either over the contract period or upon completion of the elements specified in the contract, depending on the terms of the contract. Service revenues related to uncompleted facility construction projects are further recognized as the work progresses, which involve estimates of costs needed to complete the facilities, among other things. The cumulative impact of revisions in total cost estimates are reflected in the period in which these changes become known, including, to the extent required, the increase or reversal of profit recognized in prior periods. External factors, such as weather, changes in customer requirements and other factors outside of Alleghany's control, may affect the progress and estimated cost of a project's completion and, therefore, the timing and amount of recognition of revenues and income. Provisions for estimated losses on uncompleted contracts, if any, are made in the period in which such losses are determined.

For certain customer contracts in the technical service and hotel management businesses, construction-related costs and recurring hotel operating expenses that Alleghany Capital subsidiaries control and oversee as a principal are incurred and recognized as other operating expenses, but are passed through to the customer and correspondingly recognized as noninsurance revenues.

Accounts receivable arising from noninsurance revenue are reported as a component of other assets and net of an allowance for credit losses. Such allowance reflects all expected credit losses over the remaining expected life of accounts receivable based on historical experience, current conditions and reasonable and supportable forecasts. In this regard, amounts outstanding, the current business environment, length of collection periods, the creditworthiness of the customer and other relevant factors are reviewed and considered on an ongoing basis. Amounts deemed to be uncollectible are written off against the allowance. Subsequent reversals in credit loss estimates are permitted and are recognized in earnings.

(g) Reclassification

Certain prior year amounts have been reclassified to conform to the 2020 presentation of the financial statements.

(r) Recent Accounting Standards

Recently Adopted - 2018

In February 2018, the Financial Accounting Standards Board (the "FASB") issued guidance on certain tax effects caused by the Tax Cuts and Jobs Act of 2017 (the "Tax Act"). The Tax Act, among other things, reduced the U.S. corporate federal income tax rate for the 2018 tax year from 35.0 percent to 21.0 percent. Under such circumstances, GAAP requires that the value of deferred tax assets and liabilities be reduced through tax expense. The new guidance provides an option to reclassify to retained earnings any stranded tax amounts that remain in accumulated other comprehensive income, either retrospectively or at the beginning of the period in which the adoption is elected. This guidance became effective in the first quarter of 2018 for public entities, with early adoption permitted in 2017. Alleghany adopted this guidance in the first quarter of 2018 and has elected to reclassify to retained earnings stranded tax amounts that remain in accumulated other comprehensive income, in the amount of approximately \$135 million, as of January 1, 2018. See Note 10(b) for additional information on accumulated other comprehensive income. See Note 9 for additional information on the Tax Act and its impact on Alleghany.

In January 2016, the FASB issued guidance that changes the recognition and measurement of certain financial instruments. This guidance requires investments in equity securities (except those accounted for under the equity method of accounting, but including partnership investments not accounted for under the equity method) to be measured at fair value with changes in fair value recognized in net earnings. For equity securities that do not have readily determinable fair values, measurement may be at cost, adjusted for any impairment and changes resulting from observable price changes for a similar investment of the same issuer. This guidance also changes the presentation and disclosure of financial instruments by: (i) requiring that financial instrument disclosures of fair value use the exit price notion; (ii) requiring separate presentation of financial assets and financial liabilities by measurement category and form, either on the balance sheet or the accompanying notes to the financial statements; (iii) requiring separate presentation in other comprehensive income for the portion of the change in a liability's fair value resulting from instrument-specific credit risk when an election has been made to measure the liability at fair value; and (iv) eliminating the requirement to disclose the methods and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the balance sheet. This guidance became effective for fiscal years beginning after December 15, 2017 for public entities, including interim periods within those fiscal years. Except for the change in presentation for instrument-specific credit risk, this guidance does not permit early adoption. Alleghany adopted this guidance in the first quarter of 2018. As of January 1, 2018, approximately \$736 million of net unrealized gains of equity securities, net of deferred taxes, were reclassified from accumulated other comprehensive income to retained earnings. Subsequently, all changes in unrealized gains or losses of equity securities, net of deferred taxes, were presented in the Consolidated Statements of Earnings rather than the Consolidated Statements of Comprehensive Income, under the caption "change in the fair value of equity securities." Results arising from partnership investments, whether accounted for under the equity method or at fair value, continue

to be reported as a component of net investment income. The implementation did not have a material impact on Alleghany's financial condition. See Note 4 for further information on Alleghany's equity securities, and Note 10(b) for further information on accumulated other comprehensive income.

In May 2014, the FASB, together with the International Accounting Standards Board, issued guidance on the recognition of revenue from contracts with customers. Under this guidance, revenue is recognized as the transfer of goods and services to customers takes place and in amounts that reflect the payment or payments that are expected to be received from the customers for those goods and services. This guidance also requires new disclosures about revenue. Revenue related to insurance and reinsurance contracts and revenue from investments are not impacted by this guidance, whereas noninsurance revenue arising from the sale of manufactured goods and services is generally included within the scope of this guidance. This guidance, and all related amendments, became effective in the first quarter of 2018 for public entities, with early adoption permitted in 2017. Alleghany adopted this guidance in the first quarter of 2018 using the modified retrospective transition approach and the implementation did not have a material impact on Alleghany's results of operations and financial condition. See Note 13 for further information on Alleghany's noninsurance revenues.

Recently Adopted - 2019

In February 2016, the FASB issued guidance on leases. Under this guidance, a lessee is required to recognize lease liabilities and corresponding right-of-use assets for leases with terms of more than one year, whereas under the prior guidance, a lessee was only required to recognize assets and liabilities for those leases qualifying as capital leases. This guidance also requires new disclosures about the amount, timing and uncertainty of cash flows arising from leases. The accounting by lessors remains largely unchanged. This guidance became effective in the first quarter of 2019 for public companies, with early adoption permitted. A modified retrospective transition approach was elected for all leases in existence as of, or entered into after, the beginning of the earliest comparative period presented in the financial statements. Alleghany adopted this guidance in the first quarter of 2019, and the implementation did not have a material impact on its results of operations and financial condition. As part of its implementation, Alleghany elected to not separate lease components from non-lease components (such as office cleanings, security and maintenance services provided by Alleghany's lessors for certain of its leases). Alleghany also elected the package of practical expedients under the transition guidance, which allowed Alleghany to not reevaluate existing lease classifications, among others. As of January 1, 2019, Alleghany's adoption of this guidance resulted in recognition of an additional right-of-use asset of approximately \$0.2 billion and a corresponding lease liability of \$0.2 billion. See Note 12(b) for further information on Alleghany's leases.

In August 2017, the FASB issued guidance that simplifies the requirements to achieve hedge accounting, better reflects the economic results of hedging in financial statements and improves the alignment between hedge accounting and a company's risk management activities. This guidance was effective in the first quarter of 2019 for public companies, with early adoption permitted. Alleghany adopted this guidance in the first quarter of 2019 and the implementation did not have a material impact on its results of operations and financial condition.

Recently Adopted - 2020

In June 2016, the FASB issued guidance on credit losses. Under this guidance, a company is required to measure all expected credit losses on loans, reinsurance recoverables and other financial assets accounted for at cost or amortized cost, as applicable, over the remaining expected life of such assets. Estimates of expected credit losses are to be based on historical experience, current conditions and reasonable and supportable forecasts. Under former FASB guidance, credit losses on these assets generally required a company to recognize credit losses when it was probable that a loss had been incurred. Credit losses for securities accounted for on an available for sale ("AFS") basis are to be measured in a manner similar to GAAP as applied under former guidance and cannot exceed the amount by which the fair value is less than the amortized cost, although the new guidance removes the length of time a security has been in an unrealized loss position as a possible indication of a credit impairment. Credit losses for all financial assets are to be recorded through an allowance for credit losses. Subsequent reversals in credit loss estimates are permitted and are to be recognized in earnings. This guidance also requires new disclosures about the significant estimates and judgments used in estimating credit losses, as well as the credit quality of financial assets. This guidance was effective in the first quarter of 2020 for public companies, with early adoption permitted. Alleghany adopted this guidance in the first quarter of 2020.

As of January 1, 2020, Alleghany increased its allowances for credit losses on certain financial assets accounted for at cost or amortized cost by \$4.5 million and recorded an after-tax cumulative effect reduction in opening retained earnings of \$3.6 million. The increase in allowances for credit losses primarily relates to reinsurance recoverables and commercial mortgage loans. See Note 5 for further information on Alleghany's reinsurance recoverables and Note 4(j) for further information on Alleghany's investments in commercial mortgage loans. The increase in allowances for credit losses also relates to premium balances receivable. Estimates of expected credit losses for all of these assets are based on certain market-based indicators of credit quality, which are updated on an annual basis and re-assessed at least quarterly. Related credit loss expenses are recorded as a component of other operating expenses.

As of January 1, 2020, credit losses for Alleghany's AFS securities are recorded through an allowance for credit losses on the consolidated balance sheets and as a change in allowance for credit losses on AFS securities in the consolidated statements of earnings and comprehensive income. See Note 4(f) for further information on the credit quality for Alleghany's AFS securities.

In January 2017, the FASB issued guidance that simplifies the subsequent measurement of goodwill. Under this guidance, if an initial qualitative assessment indicates that the fair value of an operating subsidiary may be less than its carrying amount, an impairment charge is recognized for the amount by which the carrying amount of the operating subsidiary exceeds its estimated fair value. Any resulting impairment loss recognized cannot exceed the total amount of goodwill associated with the operating subsidiary. This guidance was effective in the first quarter of 2020 for public companies, with early adoption permitted. Alleghany adopted this guidance in the first quarter of 2020 and the implementation did not have a material impact on its results of operations and financial condition. See Note 2 for further information on Alleghany's goodwill.

In August 2018, the FASB issued guidance that changes the financial statement disclosure requirements for measuring fair value. With respect to financial instruments classified as "Level 3" in the fair value disclosure hierarchy, the guidance requires certain additional disclosures for public companies related to amounts included in other comprehensive income and significant unobservable inputs used in the valuation, while removing disclosure requirements related to an entity's overall valuation processes. The guidance also removes certain disclosure requirements related to transfers between financial instruments classified as "Level 1" and "Level 2" and provides clarification on certain other existing disclosure requirements. This guidance was effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted with respect to any eliminated or modified disclosures. Alleghany adopted this guidance in the first quarter of 2020 and the implementation did not impact its results of operations or financial condition. See Note 3 for further information on the fair value of Alleghany's financial instruments.

In March 2020, the FASB issued guidance to expedite and simplify the accounting associated with the anticipated migration away from the widely-used London Inter-bank Offered Rate and other similar rates as benchmark interest rates after 2021. Under pre-existing GAAP, such modifications made to: (i) loans and certain other contracts would require re-assessments of the accounting for those contracts, such as whether they were extinguished and remeasured from an accounting perspective; and (ii) derivative contracts may cause a change in accounting, such as a possible dedesignation of hedge accounting. This new guidance largely eliminates these requirements as a result of this migration to one or more new benchmark rates and is generally applicable for contract modifications made prior to December 31, 2022. Alleghany adopted this guidance in March 2020 and the implementation did not have an impact on its results of operations and financial condition.

Future Application of Accounting Standards

In August 2020, the FASB issued guidance that simplifies the accounting and disclosure requirements for certain financial instruments with characteristics of liabilities and equity, such as convertible debt and convertible preferred stock. This guidance also modifies the accounting for certain contracts involving an entity's own stock. This guidance is effective in the first quarter of 2022 for public companies, with early adoption permitted. Alleghany will adopt this guidance in the first quarter of 2022 and does not currently believe that the implementation will have a material impact on its results of operations and financial condition.

2. Goodwill and Intangible Assets

The following table presents a rollforward of Alleghany's goodwill and intangible assets by segment during 2020 and 2019:

	Goodwill				Intangible Assets			
	Insurance Segment	Reinsurance Segment	Alleghany Capital Segment	Total	Insurance Segment	Reinsurance Segment	Alleghany Capital Segment	Total
	(\$ in millions)							
Balance as of December 31, 2018	\$ 49.0	\$ 8.8	\$ 397.3	\$ 455.1	\$ 68.6	\$ 74.3	\$ 410.2	\$ 553.1
Acquired (1)	—	—	67.9	67.9	—	1.5	164.7	166.2
Amortization (2)	n/a	n/a	n/a	n/a	(1.4)	0.1	(32.5)	(33.8)
Other increase (decrease)	—	—	—	—	(1.8)	2.3	—	0.5
Balance as of December 31, 2019	49.0	8.8	465.2	523.0	65.4	78.2	542.4	686.0
Acquired (1)	—	—	92.1	92.1	—	—	147.0	147.0
Amortization (2)	n/a	n/a	n/a	n/a	(1.0)	0.2	(43.4)	(44.2)
Other increase (decrease)	(0.9)	—	—	(0.9)	(1.3)	—	—	(1.3)
Balance as of December 31, 2020	\$ 48.1	\$ 8.8	\$ 557.3	\$ 614.2	\$ 63.1	\$ 78.4	\$ 646.0	\$ 787.5

(1) See description below for a summary of recent material acquisitions impacting goodwill and intangible assets.

(2) See table below for additional information regarding amortization and useful lives by major class of intangible asset.

On April 1, 2020, Alleghany Capital acquired an additional approximately 55 percent of Wilbert it previously did not own, bringing its equity interest in Wilbert to approximately 100 percent, for \$121.3 million, consisting of \$46.3 million in cash and \$75.0 million of incremental debt. In connection with the acquisition, Alleghany recorded \$62.9 million of goodwill, \$21.5 million of finite-lived customer relationship intangible assets, \$14.9 million of finite-lived license agreements intangible assets and \$26.2 million of indefinite-lived trade name intangible assets. In connection with the acquisition accounting, Alleghany Capital recorded a \$16.3 million gain on the remeasurement of its pre-existing approximately 45 percent equity ownership to estimated fair value (the "Wilbert Remeasurement Gain"). See Note 4(e) for information on the Wilbert Remeasurement Gain.

On October 1, 2019, Jazwares acquired the outstanding equity of Wicked Cool Toys, LLC ("WCT"), a global toy company based in Bristol, Pennsylvania, for \$159.0 million. Jazwares funded the acquisition with \$135.5 million of incremental debt and the issuance of certain noncontrolling interests in Jazwares, which were valued at \$23.5 million and which increased the aggregate noncontrolling interests in Jazwares from approximately 23 percent to approximately 25 percent. In connection with the acquisition, Alleghany recorded \$39.1 million of goodwill, \$83.9 million of finite-lived intangible assets related to license agreements and \$24.9 million of other finite-lived intangible assets related primarily to customer relationships.

On October 1, 2018, Alleghany Capital acquired approximately 85 percent of the equity in Concord for \$136.6 million, consisting of \$68.6 million in cash paid upon consummation of the transaction, \$38.2 million of potential contingent consideration based on future profitability and \$29.8 million of incremental debt. In connection with the acquisition, Alleghany recorded \$83.0 million of goodwill and \$70.8 million of finite-lived intangible assets related primarily to customer relationships.

On February 7, 2018, W&W|AFCO Steel acquired the outstanding equity of Hirschfeld Holdings, LP ("Hirschfeld"), a fabricator of steel bridges and structural steel for stadiums, airports and other large commercial and industrial projects, for \$109.1 million, consisting of \$94.4 million in cash and \$14.7 million of incremental debt. The \$94.4 million paid by W&W|AFCO Steel was funded by capital contributions from Alleghany and noncontrolling interests of \$75.5 million and \$18.9 million, respectively. In connection with the acquisition, Alleghany recorded \$3.0 million of goodwill and \$9.4 million of finite-lived intangible assets related primarily to customer relationships.

In addition to W&W|AFCO Steel's acquisition of Hirschfeld and Jazwares' acquisition of WCT, several other subsidiaries of Alleghany Capital have made other acquisitions, including:

- Acquisitions made by Kentucky Trailer in 2014, 2015, 2018 and 2019, including two acquisitions of controlling interests in manufacturers of aluminum feed transportation equipment. Specifically, Kentucky Trailer acquired a company based in Cedar Rapids, Iowa in December 2018 and a company based in Birmingham, Alabama in July 2019;
- Acquisitions made by Jazwares in April 2020 of a controlling interest in a plush toy manufacturer based in Los Angeles, California ("Kelly Toy"), as well as other, smaller acquisitions in 2016 and 2018;

- Acquisitions made by PCT of a manufacturer of waterjet orifices and nozzles and a provider of related services in October 2016, a provider of high-performance solid carbide end mills in June 2019 and a manufacturer of high-performance carbide end mills in March 2020; and
- An acquisition made by IPS in May 2019.

The following table presents the amount of goodwill and intangible assets, net of accumulated amortization expense, reported on Alleghany's consolidated balance sheets as of December 31, 2020 and 2019:

	December 31, 2020			December 31, 2019		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value(1)	Gross Carrying Value	Accumulated Amortization	Net Carrying Value(1)
(\$ in millions)						
Insurance Segment(2) - Goodwill	\$ 48.1	\$ —	\$ 48.1	\$ 49.0	\$ —	\$ 49.0
Insurance Segment - Intangible assets:						
Agency relationships	13.8	11.6	2.2	16.6	12.4	4.2
State insurance licenses	25.1	—	25.1	25.1	—	25.1
Trade name	35.5	—	35.5	35.5	—	35.5
Brokerage and reinsurance relationships	33.8	33.8	—	33.8	33.8	—
Renewal rights	24.9	24.6	0.3	25.1	24.5	0.6
Other	4.1	4.1	—	4.1	4.1	—
Total insurance segment intangibles	137.2	74.1	63.1	140.2	74.8	65.4
Total insurance segment goodwill and other intangibles	\$ 185.3	\$ 74.1	\$ 111.2	\$ 189.2	\$ 74.8	\$ 114.4
Reinsurance Segment(2) - Goodwill	\$ 8.8	\$ —	\$ 8.8	\$ 8.8	\$ —	\$ 8.8
Reinsurance Segment - Intangible assets:						
Value of business in-force	291.4	291.4	—	291.4	291.4	—
Loss and LAE reserves	(98.8)	(88.6)	(10.2)	(98.8)	(85.7)	(13.1)
State and foreign insurance licenses	19.0	—	19.0	19.0	—	19.0
Trade name	50.0	—	50.0	50.0	—	50.0
Renewal rights	53.0	35.2	17.8	53.0	30.7	22.3
Leases	(25.8)	(23.7)	(2.1)	(25.8)	(21.6)	(4.2)
Other	15.1	11.2	3.9	15.1	10.9	4.2
Total reinsurance segment intangibles	303.9	225.5	78.4	303.9	225.7	78.2
Total reinsurance segment goodwill and other intangibles	\$ 312.7	\$ 225.5	\$ 87.2	\$ 312.7	\$ 225.7	\$ 87.0
Alleghany Capital(2)(3) - Goodwill	\$ 557.3	\$ —	\$ 557.3	\$ 465.2	\$ —	\$ 465.2
Alleghany Capital(3) - Intangible assets:						
Trade name	218.2	2.7	215.5	171.8	0.6	171.2
License agreements	167.1	48.1	119.0	152.1	32.6	119.5
Customer relationships	357.8	72.4	285.4	296.4	47.5	248.9
Other	50.0	23.9	26.1	25.8	23.0	2.8
Total Alleghany Capital intangibles	793.1	147.1	646.0	646.1	103.7	542.4
Total Alleghany Capital goodwill and other intangibles	\$ 1,350.4	\$ 147.1	\$ 1,203.3	\$ 1,111.3	\$ 103.7	\$ 1,007.6
Alleghany consolidated:						
Goodwill	\$ 614.2	\$ —	\$ 614.2	\$ 523.0	\$ —	\$ 523.0
Intangible assets	1,234.2	446.7	787.5	1,090.2	404.2	686.0
Goodwill and other intangibles assets	\$ 1,848.4	\$ 446.7	\$ 1,401.7	\$ 1,613.2	\$ 404.2	\$ 1,209.0

(1) Goodwill and intangible assets have been reduced by amounts written-down in prior periods, as applicable.

(2) See Note 13 for additional information on Alleghany's segments of business.

- (3) Represents goodwill and other intangible assets related to the acquisition of: (i) Jazwares on April 15, 2016 and its subsequent acquisitions; (ii) W&W|AFCO Steel on April 28, 2017 and its subsequent acquisition; (iii) Concord on October 1, 2018; (iv) PCT on April 26, 2012 and its subsequent acquisitions; (v) IPS on October 31, 2015 and its subsequent acquisition; (vi) Kentucky Trailer on August 30, 2013 and its subsequent acquisitions; and (vii) Wilbert on April 1, 2020. Balances as of December 31, 2020 also reflect the finalization of certain provisional estimates that existed as of December 31, 2019.

In most instances, trade names and state and foreign insurance licenses generally have an indefinite useful life. The economic useful lives of significant intangible assets are as follows: agency relationships — 15 years; brokerage and reinsurance relationships — 15 years; renewal rights — between 3 and 14 years; loss and LAE reserves — 15 years; leases — 10 years; license agreements — 8 years; and of customer relationships — between 5 and 10 years.

3. Fair Value of Financial Instruments

The following table presents the carrying value and estimated fair value of Alleghany's consolidated financial instruments as of December 31, 2020 and 2019:

	December 31, 2020		December 31, 2019	
	Carrying Value	Fair Value	Carrying Value	Fair Value
(\$ in millions)				
Assets				
Investments (excluding equity method investments and loans)(1)	\$ 19,051.9	\$ 19,051.9	\$ 17,632.3	\$ 17,632.3
Liabilities				
Senior Notes and other debt(2)	\$ 2,135.9	\$ 2,468.7	\$ 1,751.1	\$ 1,962.7

- (1) This table includes debt and equity securities, as well as partnership and non-marketable equity investments accounted for at fair value that are included in other invested assets. This table excludes investments accounted for using the equity method and commercial mortgage loans that are accounted for at unpaid principal balance. The fair value of short-term investments approximates amortized cost.

- (2) See Note 8 for additional information on the Senior Notes and other debt.

The following tables present Alleghany's financial instruments at fair value and the level of the fair value hierarchy of inputs used as of December 31, 2020 and 2019:

	Level 1	Level 2	Level 3	Total
	(\$ in millions)			
As of December 31, 2020				
Equity securities:				
Common stock	\$ 2,711.1	\$ 3.5	\$ —	\$ 2,714.6
Preferred stock	—	3.0	1.3	4.3
Total equity securities	2,711.1	6.5	1.3	2,718.9
Debt securities:				
U.S. Government obligations	—	1,360.1	—	1,360.1
Municipal bonds	—	2,656.8	—	2,656.8
Foreign government obligations	—	879.5	—	879.5
U.S. corporate bonds	—	2,914.1	631.6	3,545.7
Foreign corporate bonds	—	1,133.6	189.5	1,323.1
Mortgage and asset-backed securities:				
RMBS(1)	—	2,608.9	2.5	2,611.4
CMBS	—	884.5	5.8	890.3
Other asset-backed securities(2)	—	1,448.9	902.7	2,351.6
Total debt securities	—	13,886.4	1,732.1	15,618.5
Short-term investments	—	714.2	—	714.2
Other invested assets(3)	—	—	0.3	0.3
Total investments (excluding equity method investments and loans)	\$ 2,711.1	\$ 14,607.1	\$ 1,733.7	\$ 19,051.9
Senior Notes and other debt	\$ —	\$ 1,911.8	\$ 556.9	\$ 2,468.7
	Level 1	Level 2	Level 3	Total
	(\$ in millions)			
As of December 31, 2019				
Equity securities:				
Common stock	\$ 2,498.1	\$ 3.3	\$ —	\$ 2,501.4
Preferred stock	—	2.1	2.0	4.1
Total equity securities	2,498.1	5.4	2.0	2,505.5
Debt securities:				
U.S. Government obligations	—	1,215.0	—	1,215.0
Municipal bonds	—	2,307.9	—	2,307.9
Foreign government obligations	—	690.7	—	690.7
U.S. corporate bonds	—	2,754.0	605.0	3,359.0
Foreign corporate bonds	—	1,208.7	168.7	1,377.4
Mortgage and asset-backed securities:				
RMBS(1)	—	1,838.5	1.9	1,840.4
CMBS	—	865.9	5.8	871.7
Other asset-backed securities(2)	—	1,692.9	856.7	2,549.6
Total debt securities	—	12,573.6	1,638.1	14,211.7
Short-term investments	—	914.8	—	914.8
Other invested assets(3)	—	—	0.3	0.3
Total investments (excluding equity method investments and loans)	\$ 2,498.1	\$ 13,493.8	\$ 1,640.4	\$ 17,632.3
Senior Notes and other debt	\$ —	\$ 1,595.6	\$ 367.1	\$ 1,962.7

(1) Primarily includes government agency pass-through securities guaranteed by a government agency or government sponsored enterprise, among other types of RMBS.

- (2) Includes \$878.4 million and \$834.2 million of collateralized loan obligations as of December 31, 2020 and 2019, respectively.
(3) Includes partnership investments accounted for at fair value and excludes investments accounted for using the equity method.

In 2020, Alleghany transferred out of Level 3 \$20.7 million of financial instruments, principally due to an increase in observable inputs related to the valuation of such assets. Specifically, during 2020, there was a decrease in the weight given to non-binding broker quotes and, as a result, there was a corresponding increase in quoted prices for similar assets in active markets. Of the \$20.7 million of transfers, \$14.5 million related to other asset-backed securities, with the remainder related to foreign corporate bonds. There were no transfers into of Level 3 in 2020.

In 2019, Alleghany transferred out of Level 3 \$25.4 million of financial instruments, principally due to an increase in observable inputs related to the valuation of such assets. Specifically, during 2019, there was a decrease in the weight given to non-binding broker quotes and, as a result, there was a corresponding increase in quoted prices for similar assets in active markets. Of the \$25.4 million of transfers, \$18.9 million related to other asset-backed securities, with the remainder related to other types of debt securities. In 2019, Alleghany transferred into Level 3 \$21.8 million of financial instruments, principally due to a decrease in observable inputs related to the valuation of such assets. Specifically, during 2019, there was an increase in the weight given to non-binding broker quotes and, as a result, there was a corresponding decrease in quoted prices for similar assets in active markets. Of the \$21.8 million of transfers, \$14.7 million related to foreign corporate bonds, with the remainder related to other types of debt securities.

The following tables present reconciliations of the changes during 2020 and 2019 in Level 3 assets measured at fair value:

Year Ended December 31, 2020	Debt Securities							Other Invested Assets ⁽¹⁾	Total
	Preferred Stock	U.S. Corporate Bonds	Foreign Corporate Bonds	Mortgage and asset - backed		Other Asset- backed Securities			
				RMBS	CMBS				
	(\$ in millions)								
Balance as of January 1, 2020	\$ 2.0	\$ 605.0	\$ 168.7	\$ 1.9	\$ 5.8	\$ 856.7	\$ 0.3	\$ 1,640.4	
Net realized/unrealized gains (losses) included in:									
Net earnings ⁽²⁾	(0.7)	(3.8)	0.1	—	—	(9.4)	—	(13.8)	
Other comprehensive income (loss)	—	22.7	7.3	0.1	0.1	5.3	—	35.5	
Purchases	—	56.4	32.0	0.9	—	196.4	—	285.7	
Sales	—	(2.0)	(0.8)	—	—	(61.7)	—	(64.5)	
Issuances	—	—	—	—	—	—	—	—	
Settlements	—	(46.7)	(11.6)	(0.4)	(0.1)	(70.1)	—	(128.9)	
Transfers into Level 3	—	—	—	—	—	—	—	—	
Transfers out of Level 3	—	—	(6.2)	—	—	(14.5)	—	(20.7)	
Balance as of December 31, 2020	\$ 1.3	\$ 631.6	\$ 189.5	\$ 2.5	\$ 5.8	\$ 902.7	\$ 0.3	\$ 1,733.7	

Year Ended December 31, 2019	Debt Securities							
	Preferred Stock	U.S. Corporate Bonds	Foreign Corporate Bonds	Mortgage and asset - backed		Other Asset-backed Securities	Other Invested Assets(1)	Total
				RMBS	CMBS			
	(\$ in millions)							
Balance as of January 1, 2019	\$ 5.4	\$ 425.7	\$ 126.9	\$ —	\$ —	\$ 1,266.9	\$ 0.7	\$ 1,825.6
Net realized/unrealized gains (losses) included in:								
Net earnings(2)	(1.7)	(6.5)	(5.9)	—	—	(1.1)	(0.1)	(15.3)
Other comprehensive income (loss)	—	39.4	7.5	0.1	—	16.7	(0.3)	63.4
Purchases	0.3	184.8	42.7	1.8	6.0	82.3	0.1	318.0
Sales	—	—	(5.6)	—	—	(378.3)	(0.1)	(384.0)
Issuances	—	—	—	—	—	—	—	—
Settlements	—	(37.0)	(10.0)	—	—	(116.7)	—	(163.7)
Transfers into Level 3	—	1.3	14.7	—	—	5.8	—	21.8
Transfers out of Level 3	(2.0)	(2.7)	(1.6)	—	(0.2)	(18.9)	—	(25.4)
Balance as of December 31, 2019	\$ 2.0	\$ 605.0	\$ 168.7	\$ 1.9	\$ 5.8	\$ 856.7	\$ 0.3	\$ 1,640.4

(1) Includes partnership and non-marketable equity investments accounted for at fair value.

(2) There were no credit losses recorded in net earnings related to Level 3 instruments still held as of December 31, 2020 and 2019.

With respect to changes in Level 3 liabilities during 2020, the increase in senior notes and other debt reflects the impact of Wilbert's April 1, 2020 inclusion in Alleghany's consolidated results, as discussed above and, to a lesser extent, increased borrowings at other Alleghany Capital subsidiaries due to greater working capital needs.

Although Alleghany is responsible for the determination of the fair value of Alleghany's financial assets and the supporting methodologies and assumptions, it employs third-party valuation service providers to gather, analyze and interpret market information and derive fair values based upon relevant methodologies and assumptions for individual instruments. When those providers are unable to obtain sufficient market observable information upon which to estimate the fair value for a particular security, fair value is determined either by requesting a quote, which is generally non-binding, from brokers who are knowledgeable about these securities or by employing widely accepted valuation models. As of December 31, 2020 and December 31, 2019, the fair value for the vast majority of debt securities included in Level 3 was provided by such third-party valuation service providers, and as such, valuation details on these securities are generally not available to Alleghany.

Alleghany employs specific control processes to determine the reasonableness of the fair values of its financial assets and liabilities. Alleghany's processes are designed to ensure that the values received or internally estimated are accurately recorded and that the data inputs and the valuation techniques used are appropriate, consistently applied and that the assumptions are reasonable and consistent with the objective of determining fair value. Alleghany assesses the reasonableness of individual security values received from valuation service providers through various analytical techniques. In addition, Alleghany validates the reasonableness of fair values by comparing information obtained from Alleghany's valuation service providers to other third-party valuation sources for selected securities. Alleghany also validates prices obtained from brokers for selected securities through reviews by those who have relevant expertise and who are independent of those charged with executing investing transactions.

See Note 1(c) for Alleghany's accounting policy on fair value.

4. Investments

(a) Unrealized Gains and Losses

The following tables present the amortized cost and the fair value of AFS securities as of December 31, 2020 and 2019:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Losses ⁽²⁾	Fair Value
(\$ in millions)					
As of December 31, 2020					
Debt securities:					
U.S. Government obligations	\$ 1,317.6	\$ 44.0	\$ (1.5)	\$ —	\$ 1,360.1
Municipal bonds	2,489.1	168.3	(0.6)	—	2,656.8
Foreign government obligations	846.6	33.4	(0.5)	—	879.5
U.S. corporate bonds	3,262.0	289.7	(3.5)	(2.5)	3,545.7
Foreign corporate bonds	1,268.3	55.6	(0.7)	(0.1)	1,323.1
Mortgage and asset-backed securities:					
RMBS	2,533.6	78.3	(0.5)	—	2,611.4
CMBS	852.6	45.3	(7.6)	—	890.3
Other asset-backed securities ⁽¹⁾	2,328.7	47.6	(24.7)	—	2,351.6
Total debt securities	14,898.5	762.2	(39.6)	(2.6)	15,618.5
Short-term investments	714.2	—	—	—	714.2
Total investments	\$ 15,612.7	\$ 762.2	\$ (39.6)	\$ (2.6)	\$ 16,332.7
(\$ in millions)					
As of December 31, 2019					
Debt securities:					
U.S. Government obligations	\$ 1,198.5	\$ 19.3	\$ (2.8)	\$ —	\$ 1,215.0
Municipal bonds	2,190.5	118.7	(1.3)	—	2,307.9
Foreign government obligations	675.9	16.4	(1.6)	—	690.7
U.S. corporate bonds	3,206.2	155.1	(2.3)	—	3,359.0
Foreign corporate bonds	1,348.1	32.2	(2.9)	—	1,377.4
Mortgage and asset-backed securities:					
RMBS	1,785.1	56.1	(0.8)	—	1,840.4
CMBS	849.9	23.2	(1.4)	—	871.7
Other asset-backed securities ⁽¹⁾	2,544.5	24.8	(19.7)	—	2,549.6
Total debt securities	13,798.7	445.8	(32.8)	—	14,211.7
Short-term investments	914.8	—	—	—	914.8
Total investments	\$ 14,713.5	\$ 445.8	\$ (32.8)	\$ —	\$ 15,126.5

(1) Includes \$878.4 million and \$834.2 million of collateralized loan obligations as of December 31, 2020 and 2019, respectively.

(2) See Note 1(r) for further information regarding Alleghany's adoption of new credit loss accounting guidance.

(b) Contractual Maturity

The following table presents the amortized cost and estimated fair value of debt securities by contractual maturity as of December 31, 2020. Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	Amortized Cost	Fair Value
	(\$ in millions)	
As of December 31, 2020		
Short-term investments due in one year or less	\$ 714.2	\$ 714.2
Mortgage and asset-backed securities(1)	5,714.9	5,853.3
Debt securities with maturity dates:		
One year or less	589.8	594.8
Over one through five years	3,457.8	3,605.7
Over five through ten years	2,826.5	3,042.4
Over ten years	2,309.5	2,522.3
Total debt securities	\$ 14,898.5	\$ 15,618.5

(1) Mortgage and asset-backed securities by their nature do not generally have single maturity dates.

(c) Net Investment Income

The following table presents net investment income for 2020, 2019 and 2018:

	2020	Year Ended December 31, 2019	2018
	(\$ in millions)		
Interest income	\$ 443.1	\$ 499.5	\$ 420.8
Dividend income	28.0	37.9	78.5
Investment expenses	(28.6)	(28.9)	(31.5)
Partnerships and other investment results	48.4	41.7	32.7
Total	<u>\$ 490.9</u>	<u>\$ 550.2</u>	<u>\$ 500.5</u>

As of December 31, 2020, non-income producing invested assets were immaterial.

(d) Change in the Fair Value of Equity Securities

The proceeds from sales of equity securities were \$1.7 billion in 2020, \$2.3 billion in 2019 and \$1.6 billion in 2018.

The following table presents changes in the fair value of equity securities for 2020, 2019 and 2018:

	2020	Year Ended December 31, 2019	2018
	(\$ in millions)		
Change in the fair value of equity securities sold during the period	\$ (147.4)	\$ 59.1	\$ (175.6)
Change in the fair value of equity securities held at the end of the period	36.9	650.6	(53.4)
Change in the fair value of equity securities	<u>\$ (110.5)</u>	<u>\$ 709.7</u>	<u>\$ (229.0)</u>

(e) Realized Gains and Losses

The proceeds from sales of debt securities were \$4.0 billion, \$3.6 billion and \$3.6 billion for 2020, 2019 and 2018, respectively.

Realized capital gains and losses for 2020, 2019 and 2018 primarily reflect the sale of debt securities, except as noted in the following table. The following table presents the amounts of gross realized capital gains and gross realized capital losses for 2020, 2019 and 2018:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions)		
Gross realized capital gains	\$ 134.6 (1)	\$ 62.4	\$ 86.9 (4)
Gross realized capital losses	(131.5) (2)	(68.9) (3)	(90.1) (5)
Net realized capital gains	\$ 3.1	\$ (6.5)	\$ (3.2)

- (1) Gross realized capital gains in 2020 include (i) a \$15.0 million realized gain on a partial settlement and remeasurement of fair value of certain outstanding contingent consideration liabilities by Alleghany Capital in connection with its 2018 acquisition of Concord (the "Concord Settlement Gain"); (ii) a gain of \$16.3 million on April 1, 2020 in connection with Alleghany Capital's acquisition of an additional approximately 55 percent of Wilbert that it did not previously own, and the remeasurement of its pre-existing approximately 45 percent equity ownership to estimated fair value (the "Wilbert Remeasurement Gain"); and (iii) a \$5.0 million realized gain from a reduction of certain contingent consideration liabilities at the PCT-level in connection with its acquisition of a provider of high-performance solid carbide end mills in June 2019.
- (2) Gross realized capital losses in 2020 include (i) impairment charges of \$76.0 million from write-downs of SORC oil field assets prior to SORC's December 31, 2020 sale; and (ii) a \$7.1 million realized loss as a result of an early redemption of debt (see Note 8 for further information on this early redemption).
- (3) Gross realized capital losses in 2019 include \$38.4 million from a derivative. Specifically, on July 18, 2019, AIHL purchased an exchange-traded equity derivative index put option (the "Put Option") for \$38.4 million to hedge the downside equity market risk on approximately \$1.0 billion of Alleghany's equity portfolio. The Put Option did not qualify for hedge accounting. The Put Option expired worthless on December 31, 2019, and the resulting \$38.4 million decline in value of the Put Option was recorded as a gross realized capital loss.
- (4) Gross realized capital losses in 2019 also includes a \$13.6 million loss from the December 2019 sale of a privately held investment accounted for under the equity method.
- (5) Gross realized capital gains in 2018 include a \$45.7 million gain on AIHL's conversion of its limited partnership interests in certain subsidiaries of Ares Management LLC ("Ares") into Ares common units in 2018.
- (5) Gross realized capital losses in 2018 include a \$35.4 million capital loss due to an impairment charge from the write-down of certain SORC assets arising from a decline in energy prices as of December 31, 2018.

Gross realized loss amounts exclude change in allowance for credit losses on AFS securities, as discussed below.

(f) Credit quality for AFS securities

Alleghany holds its debt securities as AFS and, as such, these securities are recorded at fair value. Credit losses for AFS securities are recorded through an allowance for credit losses. Changes in the allowance for credit losses are recorded for (or as a reversal of) credit losses on AFS securities. Any portion of a decline in fair value related to a debt security that is believed to arise from factors other than credit is recorded as a component of other comprehensive income rather than charged against earnings.

Alleghany continually monitors the difference between amortized cost and the estimated fair value of its debt investments. The analysis of a security's decline in value is performed in its functional currency. Debt securities in an unrealized loss position are evaluated for credit losses if they meet any of the following criteria: (i) they are trading at a discount of at least 20 percent to amortized cost and have a credit rating below investment grade or are not rated; (ii) there has been a negative credit or news event with respect to the issuer that could indicate the existence of a credit loss; or (iii) Alleghany intends to sell, or it is more likely than not that Alleghany will sell, the debt security before recovery of its amortized cost basis.

If Alleghany intends to sell, or it is more likely than not that Alleghany will sell, a debt security before recovery of its amortized cost basis, the total amount of the unrealized loss position is recognized as a credit loss in earnings. To the extent that a debt security that is in an unrealized loss position is not impaired based on the preceding, Alleghany will consider a debt security to be impaired when it believes it to be probable that Alleghany will not be able to collect the entire amortized cost basis. For debt securities in an unrealized loss position as of the end of each quarter, Alleghany develops a best estimate of the present value of expected cash flows. If the results of the cash flow analysis indicate that Alleghany will not recover the full amount of its amortized cost basis in the debt security, Alleghany records a credit loss in earnings equal to the difference between the present value of expected cash flows and the amortized cost basis of the debt security. If applicable, the difference between the total unrealized loss position on the debt security and the total loss recognized in earnings is the non-credit related portion, which is recorded as a component of other comprehensive income.

In developing the cash flow analyses for debt securities, Alleghany considers various factors for the different categories of debt securities. For municipal bonds, Alleghany takes into account the taxing power of the issuer, source of revenue, credit risk and enhancements and pre-refunding. For mortgage and asset-backed securities, Alleghany discounts its best estimate of future cash flows at an effective rate equal to the original effective yield of the security or, in the case of floating rate securities, at the current coupon. Alleghany's models include assumptions about prepayment speeds, default and delinquency rates, underlying collateral (if any), credit ratings, credit enhancements and other observable market data. For corporate bonds, Alleghany reviews business prospects, credit ratings and available information from asset managers and rating agencies for individual securities.

Change in allowance for credit losses on AFS securities in 2020 reflect \$8.0 million of unrealized losses on debt securities, primarily related to the energy sector and lower-quality corporate bonds in other sectors due to a significant decline in

their fair value relative to their amortized costs in the spring of 2020, net of a subsequent reduction of the allowance for credit losses on AFS securities in 2020 arising from the improved bond market conditions and bond sales later in 2020.

Change in allowance for credit losses on AFS securities in 2019 reflects \$19.7 million of unrealized losses on debt securities, primarily related to the deterioration of creditworthiness of the issuers in the domestic energy sector and certain foreign bonds due to a significant decline in fair value.

Change in allowance for credit losses on AFS securities in 2018 reflects \$1.3 million of unrealized losses on debt securities, primarily in the energy and industrial sectors, related to the deterioration of creditworthiness of the issuers.

The following table presents a rollforward of Alleghany's allowance for credit losses on AFS securities for 2020:

	Year Ended December 31, 2020 (\$ in millions)
<u>Allowance for Credit Losses</u>	
Beginning balance	\$ —
Beginning balance - cumulative effect of an accounting change	—
Provision for credit losses	8.0
Charge-offs	(5.4)
Recoveries	—
Balance as of December 31, 2020	<u>\$ 2.6</u>

The gross unrealized investment losses for debt securities as of December 31, 2020 were deemed to be temporary, based on, among other factors: (i) the relative magnitude to which the fair value of these investments had been below cost were not indicative of a credit loss; (ii) the absence of compelling evidence that would cause Alleghany to call into question the financial condition or near-term business prospects of the issuer of the security; and (iii) Alleghany's ability and intent to hold the security for a period of time sufficient to allow for any anticipated recovery.

Alleghany's methodology for assessing credit losses contains inherent risks and uncertainties which could include, but are not limited to, incorrect assumptions about financial condition, liquidity or future prospects, inadequacy of any underlying collateral and unfavorable changes in economic conditions or social trends, interest rates or credit ratings.

Alleghany's consolidated investment portfolio consists mainly of highly rated and liquid debt and equity securities listed on national securities exchanges. The overall credit quality of the debt securities portfolio is measured using the lowest rating of three large, reputable rating agencies. In this regard, the overall weighted-average credit quality rating of Alleghany's debt securities portfolio as of December 31, 2020 and 2019, was AA-. Although a portion of Alleghany's debt securities, which consist predominantly of municipal bonds, is insured by third-party financial guaranty insurance companies, the impact of such insurance was not significant to the debt securities' credit quality rating as of December 31, 2020.

The following table presents the ratings of Alleghany's debt securities as of December 31, 2020:

	Ratings as of December 31, 2020					
	AAA / Aaa	AA / Aa	A	BBB / Baa	Below BBB / Baa or Not Rated ⁽¹⁾	Total
	(\$ in millions)					
U.S. Government obligations	\$ 5.9	\$ 1,354.2	\$ —	\$ —	\$ —	\$ 1,360.1
Municipal bonds	225.9	1,869.6	467.5	86.4	7.4	2,656.8
Foreign government obligations	385.8	405.0	87.5	1.2	—	879.5
U.S. corporate bonds	8.7	137.3	1,473.1	1,553.8	372.8	3,545.7
Foreign corporate bonds	235.3	103.2	571.5	382.3	30.8	1,323.1
Mortgage and asset-backed securities:						
RMBS	2.5	2,602.3	—	1.0	5.6	2,611.4
CMBS	279.4	408.4	200.0	2.5	—	890.3
Other asset-backed securities	924.0	647.6	376.3	386.6	17.1	2,351.6
Total debt securities	\$ 2,067.5	\$ 7,527.6	\$ 3,175.9	\$ 2,413.8	\$ 433.7	\$ 15,618.5
Percentage of debt securities	13.2%	48.2%	20.3%	15.5%	2.8%	100.0%

(1) Consists of \$158.6 million of securities rated BB / Ba, \$191.8 million of securities rated B, \$26.0 million of securities rated CCC, \$0.5 million of securities rated CC, \$4.5 million of securities rated below CC and \$52.3 million of not rated securities.

(g) Aging of Gross Unrealized Losses

The following tables present gross unrealized losses and related fair values for Alleghany's AFS securities for which an allowance for credit losses has not been recorded, grouped by duration of time in a continuous unrealized loss position, as of December 31, 2020 and 2019:

	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
	(\$ in millions)					
As of December 31, 2020						
Debt securities:						
U.S. Government obligations	\$ 255.9	\$ 1.5	\$ —	\$ —	\$ 255.9	\$ 1.5
Municipal bonds	36.2	0.6	—	—	36.2	0.6
Foreign government obligations	132.8	0.5	—	—	132.8	0.5
U.S. corporate bonds	168.5	3.5	2.4	—	170.9	3.5
Foreign corporate bonds	36.4	0.2	19.5	0.5	55.9	0.7
Mortgage and asset-backed securities:						
RMBS	152.6	0.5	0.4	—	153.0	0.5
CMBS	133.5	7.6	3.8	—	137.3	7.6
Other asset-backed securities	547.9	13.4	533.9	11.3	1,081.8	24.7
Total temporarily impaired securities	\$ 1,463.8	\$ 27.8	\$ 560.0	\$ 11.8	\$ 2,023.8	\$ 39.6

	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
	(\$ in millions)					
As of December 31, 2019						
Debt securities:						
U.S. Government obligations	\$ 120.3	\$ 2.0	\$ 99.7	\$ 0.8	\$ 220.0	\$ 2.8
Municipal bonds	90.2	1.3	4.3	—	94.5	1.3
Foreign government obligations	198.5	1.2	33.8	0.4	232.3	1.6
U.S. corporate bonds	113.8	1.6	27.6	0.7	141.4	2.3
Foreign corporate bonds	212.0	2.3	66.9	0.6	278.9	2.9
Mortgage and asset-backed securities:						
RMBS	48.7	0.3	48.6	0.5	97.3	0.8
CMBS	126.8	1.4	1.2	—	128.0	1.4
Other asset-backed securities	422.9	2.7	715.9	17.0	1,138.8	19.7
Total temporarily impaired securities	\$ 1,333.2	\$ 12.8	\$ 998.0	\$ 20.0	\$ 2,331.2	\$ 32.8

As of December 31, 2020, Alleghany held a total of 506 debt securities that were in an unrealized loss position, of which 115 securities were in an unrealized loss position continuously for 12 months or more. The unrealized losses associated with these debt securities consisted of losses related primarily to other asset-backed securities, U.S. corporate bonds and CMBS.

(h) Statutory Deposits

Investments with fair values of approximately \$2.4 billion as of December 31, 2020, the substantial majority of which were debt securities and equity securities, were deposited with governmental authorities as required by law.

(i) Investments in Certain Other Invested Assets

In December 2012, TransRe obtained an ownership interest in Pillar Capital Holdings Limited (“Pillar Holdings”), a Bermuda- based insurance asset manager focused on collateralized reinsurance and catastrophe insurance-linked securities. Additionally, TransRe and, to a lesser extent, AIHL invested in limited partnership funds managed by Pillar Holdings (the “Funds”). The objective of the Funds is to create portfolios with attractive risk-reward characteristics and low correlation with other asset classes, using the extensive reinsurance and capital market experience of the principals of Pillar Holdings. Alleghany has concluded that both Pillar Holdings and the Funds (collectively, the “Pillar Investments”) represent variable interest entities and that Alleghany is not the primary beneficiary, as it does not have the ability to direct the activities that most significantly impact each entity’s economic performance. Therefore, the Pillar Investments are not consolidated and are accounted for under the equity method of accounting. Alleghany’s potential maximum loss in the Pillar Investments is limited to its cumulative net investment. As of December 31, 2020 and 2019, Alleghany’s carrying value in the Pillar Investments, as determined under the equity method of accounting, was \$173.3 million and \$205.5 million, respectively, which is reported as a component of other invested assets and is net of returns of capital received from the Pillar Investments.

(j) Investments in Commercial Mortgage Loans

As of December 31, 2020 and 2019, the carrying value of Alleghany’s commercial mortgage loan portfolio was \$670.2 million and \$686.2 million, respectively, representing the unpaid principal balance on the loans, less allowance for credit losses. The estimated fair value of the commercial mortgage loan portfolio approximated carrying value of as December 31, 2020 and 2019. The commercial mortgage loan portfolio consists primarily of first mortgages on commercial properties in major metropolitan areas in the U.S. The loans earn interest at fixed- and floating-rates, and mature in two to ten years from loan origination. As of December 31, 2020, the vast majority of loans in Alleghany’s portfolio were originated in the 2016 through 2019 years.

The principal amounts of the loans were no more than approximately two-thirds of the property’s appraised value at the time the loans were made and the estimated fair value of underlying collateral was approximately double that of the commercial mortgage loan portfolio carrying value as of December 31, 2020. Fair value estimates of underlying collateral are updated on a rolling basis at least annually, with a portion of the portfolio updated each quarter. As of December 31, 2020, there was no loan in default or in arrears.

The following table presents a rollforward of Alleghany's allowance for credit losses on commercial mortgage loans for 2020:

	Year Ended December 31, 2020
	(\$ in millions)
<u>Allowance for Credit Losses</u>	
Beginning balance	\$ —
Beginning balance - cumulative effect of an accounting change	0.8
Provision for credit losses	0.6
Charge-offs	—
Recoveries	—
Balance as of December 31, 2020	\$ 1.4

5. Reinsurance Ceded

(a) Overview

Alleghany's reinsurance and insurance subsidiaries reinsure portions of the risks they underwrite in order to reduce the effect of individual or aggregate exposure to losses, manage capacity, protect capital resources, reduce volatility in specific lines of business, improve risk-adjusted portfolio returns and enable them to increase gross premium writings and risk capacity without requiring additional capital. Alleghany's reinsurance and insurance subsidiaries generally purchase reinsurance and retrocessional coverages from highly-rated third-party reinsurers or on a collateralized basis. If the assuming reinsurers are unable or unwilling to meet the obligations assumed under the applicable reinsurance agreements, Alleghany's reinsurance and insurance subsidiaries would remain liable for such reinsurance portion not paid by these reinsurers. As such, funds, trust agreements and letters of credit are held to collateralize a portion of Alleghany's reinsurance recoverables and Alleghany's reinsurance and insurance subsidiaries reinsure portions of the risks they underwrite or assume with multiple reinsurance programs.

(b) Reinsurance Recoverables

Amounts recoverable from reinsurers are recognized in a manner consistent with the loss and LAE liabilities associated with the reinsurance placement and presented on the balance sheet as reinsurance recoverables, and are recorded after an allowance for credit losses. Such balances as of December 31, 2020 and 2019 are presented in the table below:

	2020	As of December 31, 2019
	(\$ in millions)	
Reinsurance recoverables on paid losses	\$ 85.3	\$ 98.1
Ceded outstanding loss and LAE	1,703.7	1,583.9
Reinsurance recoverables, before allowance for credit losses	1,789.0	1,682.0
Allowance for credit losses	(7.9)	—
Total	\$ 1,781.1	\$ 1,682.0

The following table presents information regarding concentration of Alleghany's reinsurance recoverables and the ratings profile of its reinsurers as of December 31, 2020:

Reinsurer ⁽¹⁾	Rating ⁽²⁾	Amount (\$ in millions)	Percentage
Syndicates at Lloyd's of London	A (Excellent)	\$ 151.1	8.4%
Kane SAC Ltd, Rondout Segregated Account ⁽³⁾	not rated	124.5	7.0%
RenaissanceRe Holdings Ltd	A+ (Superior)	119.2	6.7%
PartnerRe Ltd	A (Excellent)	113.1	6.3%
Fairfax Financial Holdings Ltd	A (Superior)	106.0	5.9%
Swiss Reinsurance Company	A+ (Superior)	98.6	5.5%
Third Point Reinsurance Group	A- (Excellent)	79.1	4.4%
W.R. Berkley Corporation	A+ (Superior)	73.1	4.1%
Chubb	A++ (Superior)	68.7	3.8%
Kane SAC Ltd, Bowery Segregated Account ⁽³⁾	not rated	62.1	3.5%
All other reinsurers		793.5	44.4%
Total reinsurance recoverables, before allowance for credit losses ⁽⁴⁾		1,789.0	100.0%
Allowance for credit losses		(7.9)	
Total		\$ 1,781.1	
Secured reinsurance recoverables ⁽³⁾		\$ 632.1	35.5%

(1) Reinsurance recoverables reflect amounts due from one or more reinsurance subsidiaries of the listed company.

(2) Represents the A.M. Best Company, Inc. financial strength rating for the applicable reinsurance subsidiary or subsidiaries from which the reinsurance recoverable is due.

(3) Represents reinsurance recoverables secured by funds held, trust agreements or letters of credit.

(4) Approximately 71 percent of Alleghany's reinsurance recoverables balance as of December 31, 2020 was due from reinsurers having an A.M. Best Company, Inc. financial strength rating of A (Excellent) or higher, with a majority of the other reinsurance recoverables being secured by funds held, trust agreements or letters of credit.

The following table presents a rollforward of Alleghany's allowance for credit losses on reinsurance recoverables for 2020:

	Year Ended December 31, 2020 (\$ in millions)
<u>Allowance for Credit Losses</u>	
Beginning balance	\$ —
Beginning balance - cumulative effect of an accounting change	3.3
Provision for credit losses	4.6
Charge-offs	—
Recoveries	—
Balance as of December 31, 2020	\$ 7.9

Reinsured loss and LAE ceded included in Alleghany's consolidated statements of earnings were \$562.7 million, \$407.7 million and \$628.2 million for 2020, 2019 and 2018, respectively.

(c) Premiums Written and Earned

The following table presents property and casualty premiums written and earned for 2020, 2019 and 2018:

	2020	Year Ended December 31, 2019	2018
		(\$ in millions)	
Gross premiums written – direct	\$ 2,214.6	\$ 1,800.3	\$ 1,537.8
Gross premiums written – assumed	5,114.8	4,856.1	4,357.8
Ceded premiums written	(985.0)	(904.7)	(847.2)
Net premiums written	\$ 6,344.4	\$ 5,751.7	\$ 5,048.4
Gross premiums earned – direct	\$ 2,370.4	\$ 2,114.1	\$ 1,935.3
Gross premiums earned – assumed	4,582.9	4,268.8	3,881.4
Ceded premiums earned	(953.1)	(904.8)	(840.5)
Net premiums earned	\$ 6,000.2	\$ 5,478.1	\$ 4,976.2

(d) Significant Reinsurance Contracts

Alleghany's reinsurance and insurance subsidiaries reinsure portions of the risks they underwrite or assume with multiple reinsurance programs. A summary of the more significant programs follows.

TransRe enters into various retrocession arrangements, including property catastrophe retrocession contracts, to manage the effects of individual or aggregate exposure to losses, reduce volatility in specific lines of business, improve risk-adjusted portfolio returns, strengthen its market position and enhance capital efficiency. These include excess-of-loss and quota share treaties in both traditional rated and collateralized form as well as catastrophe bonds. TransRe's retrocession protections generally have a one-year term and renewal dates occur throughout the year, with the majority renewing at January 1. The catastrophe bonds, however, have a four-year term, with maturities in 2022 and 2023.

RSUI reinsures its property lines of business through a program consisting of surplus share treaties, facultative placements, and per risk and catastrophe excess of loss treaties. RSUI's catastrophe reinsurance program and property per risk reinsurance program each run on an annual basis from May 1 to the following April 30 and portions expired on April 30, 2020. Both programs were renewed on May 1, 2020 with substantially similar terms as the expired programs.

(e) Significant AIHL Re Reinsurance Contracts

AIHL Re and CapSpecialty entered into an intercompany reinsurance contract, effective July 1, 2015, pursuant to which AIHL Re provides CapSpecialty with coverage primarily for adverse development on certain net loss and allocated LAE in excess of its carried reserves at June 30, 2015. AIHL Re's commitments are intended to cover the statutory collateral requirements at CapSpecialty, if and when necessary, and AIHL Re's obligations are subject to an aggregate limit of \$50.0 million. In connection with such intercompany reinsurance agreement, Alleghany and AIHL Re entered into a contract whereby Alleghany will guarantee the recoverable balances owed to CapSpecialty from AIHL Re up to \$50.0 million. The above agreements had no impact on Alleghany's consolidated results of operations and financial condition.

In connection with the December 31, 2017 sale of Pacific Compensation Corporation ("PacificComp") by AIHL, AIHL Re provides adverse development reinsurance coverage to the acquirer on PacificComp's pre-acquisition claims, subject to certain terms and conditions. AIHL Re's obligation, which are guaranteed by Alleghany, are subject to an aggregate limit of \$150.0 million and a final commutation and settlement as of December 31, 2024.

6. Liability for Loss and LAE

(a) Liability Rollforward

The following table presents the activity in the liability for loss and LAE in 2020, 2019 and 2018:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions)		
Reserves as of January 1	\$ 11,928.4	\$ 12,250.3	\$ 11,871.3
Less: reinsurance recoverables ⁽¹⁾	1,583.9	1,857.4	1,650.1
Net reserves as of January 1	10,344.5	10,392.9	10,221.2
Other adjustments	(4.0)	(2.3)	0.9
Incurred loss and LAE, net of reinsurance, related to:			
Current year	4,559.9	3,871.1	3,849.4
Prior years	(220.8)	(184.7)	(329.0)
Total incurred loss and LAE, net of reinsurance	4,339.1	3,686.4	3,520.4
Paid loss and LAE, net of reinsurance, related to: ⁽²⁾			
Current year	931.7	884.6	838.9
Prior years	2,571.8	2,839.9	2,419.0
Total paid loss and LAE, net of reinsurance	3,503.5	3,724.5	3,257.9
Foreign currency exchange rate effect	90.8	(8.0)	(91.7)
Net reserves as of December 31	11,266.9	10,344.5	10,392.9
Reinsurance recoverables as of December 31 ⁽¹⁾	1,703.7	1,583.9	1,857.4
Reserves as of December 31	\$ 12,970.6	\$ 11,928.4	\$ 12,250.3

(1) Reinsurance recoverables in this table include only ceded loss and LAE reserves.

(2) Includes paid loss and LAE, net of reinsurance, related to commutations.

Gross loss and LAE reserves as of December 31, 2020 increased from December 31, 2019, primarily reflecting the impact of growing net premiums earned and catastrophe losses incurred in 2020, partially offset by payments on catastrophe losses incurred primarily in 2017, 2018 and 2019 and favorable prior accident year loss reserve development. The 2020 catastrophe losses, net of reinsurance, include \$415.2 million related to the COVID-19 global pandemic (the “Pandemic”), \$114.2 million related to Hurricane Laura, \$92.6 million related to Hurricane Sally and \$19.1 million related to earthquakes in Puerto Rico.

Gross loss and LAE reserves as of December 31, 2019 decreased from December 31, 2018, primarily reflecting payments on catastrophe losses incurred in 2017 and 2018 and favorable prior accident year loss reserve development, partially offset by the impact of growing net premiums earned and catastrophe losses incurred in 2019. The 2019 catastrophe losses, net of reinsurance, include \$183.7 million related to Typhoon Hagibis, \$95.4 million related to Typhoon Faxai, \$22.3 million related to civil unrest in Chile and \$13.6 million related to Hurricane Dorian.

(b) Liability Development

The following table presents the (favorable) unfavorable prior accident year loss reserve development for 2020, 2019 and 2018:

	Year Ended December,		
	2020	2019	2018
	(\$ in millions)		
Reinsurance Segment			
Property:			
Catastrophe events	\$ (43.3) ⁽¹⁾	\$ (6.8) ⁽²⁾	\$ (20.2) ⁽³⁾
Non-catastrophe	(33.6) ⁽⁴⁾	(39.4) ⁽⁵⁾	(64.7) ⁽⁶⁾
Total	<u>(76.9)</u>	<u>(46.2)</u>	<u>(84.9)</u>
Casualty & other:			
Malpractice Treaties ⁽⁷⁾	—	(1.4)	(3.4)
Catastrophe events	(5.9)	(4.4)	(6.7)
Other	(124.1) ⁽⁸⁾	(143.8) ⁽⁹⁾	(171.1) ⁽¹⁰⁾
Total	<u>(130.0)</u>	<u>(149.6)</u>	<u>(181.2)</u>
Total Reinsurance Segment	<u>(206.9)</u>	<u>(195.8)</u>	<u>(266.1)</u>
Insurance Segment			
RSUI:			
Casualty	1.8 ⁽¹¹⁾	(16.3) ⁽¹²⁾	(27.8) ⁽¹³⁾
Property and other	(14.6) ⁽¹⁴⁾	(1.2) ⁽¹⁵⁾	(30.9) ⁽¹⁶⁾
Total	<u>(12.8)</u>	<u>(17.5)</u>	<u>(58.7)</u>
CapSpecialty:			
Ongoing lines of business	(2.0) ⁽¹⁷⁾	26.1 ⁽¹⁸⁾	(4.2) ⁽¹⁹⁾
Terminated Program ⁽²⁰⁾	0.9	3.0	—
Asbestos-related illness and environmental impairment liability	—	(0.5)	—
Total	<u>(1.1)</u>	<u>28.6</u>	<u>(4.2)</u>
Total incurred related to prior years	\$ (220.8)	\$ (184.7)	\$ (329.0)

- (1) Primarily reflects favorable prior accident year loss reserve development related to Typhoon Hagibis in the 2019 accident year and wildfires in California in the 2017 and 2018 accident years, partially offset by unfavorable prior accident year loss reserve development related to Hurricane Irma in the 2017 accident year and Typhoon Faxai in the 2019 accident year.
- (2) Primarily reflects favorable prior accident year loss reserve development related to wildfires in California in the 2018 accident year, partially offset by unfavorable prior accident year loss reserve development related to Typhoon Jebi in the 2018 accident year and Hurricane Irma in 2017 accident year.
- (3) Primarily reflects favorable prior accident year loss reserve development related to Hurricane Harvey in the 2017 accident year and catastrophes in the 2016 accident year, partially offset by unfavorable prior accident year loss reserve development related to Hurricanes Maria and Irma in the 2017 accident year.
- (4) Primarily reflects favorable prior accident year loss reserve development in the 2017 accident year.
- (5) Primarily reflects favorable prior accident year loss reserve development in the 2016 and 2017 accident years, partially offset by unfavorable prior accident year loss reserve development in the 2018 accident year.
- (6) Primarily reflects favorable prior accident year loss reserve development in the 2015 and 2016 accident years, partially offset by unfavorable prior accident year loss reserve development in the 2017 accident year.
- (7) Represents certain medical malpractice treaties pursuant to which the increased underwriting profits created by the favorable prior accident year loss reserve development are largely retained by the cedants. As a result, the favorable prior accident year loss reserve development is largely offset by an increase in profit commission expense incurred when such favorable prior accident year loss reserve development occurs.
- (8) Primarily reflects favorable prior accident year loss reserve development in the longer-tailed lines of business in the 2014 and earlier accident years and in the shorter-tailed lines of business in the 2017 accident year, partially offset by unfavorable prior accident year loss reserve development in the longer-tailed lines of business in the 2016 to 2018 accident years.
- (9) Primarily reflects favorable prior accident year loss reserve development in the longer-tailed casualty lines of business in the 2014 and prior accident years and, to a lesser extent, shorter-tailed lines of business in the 2014 and prior accident years, partially offset by unfavorable prior accident year loss reserve development in the marine and aviation lines of business in the 2018 accident year.
- (10) Primarily reflects favorable prior accident year loss reserve development in the longer-tailed casualty lines of business in the 2002 through 2010 accident years and in the shorter-tailed casualty lines of business (specifically, ocean marine, automobile liability and accident & health) in the 2017 accident year, partially offset by unfavorable prior accident year loss reserve development in the professional liability lines of business in the 2015 accident year.
- (11) Primarily reflects unfavorable prior accident year loss reserve development in the professional liability lines of business in the 2017 through 2019 accident years, partially offset by favorable prior accident year loss reserve development in the directors' and officers' liability and umbrella/excess lines of business in the 2011 through 2015 accident years.
- (12) Primarily reflects favorable prior accident year loss reserve development in the directors' and officers' liability and umbrella/excess lines of business in the 2011 through 2015 accident years, partially offset by unfavorable prior accident year loss reserve development in the professional liability lines of business in the 2016 through 2018 accident years.
- (13) Primarily reflects favorable prior accident year loss reserve development in the umbrella/excess lines of business in the 2005 through 2012 accident years, partially offset by unfavorable prior accident year loss reserve development in the directors' and officers' liability lines of business in the 2009, 2012 and 2016 accident years.

- (14) Primarily reflects favorable prior accident year loss reserve development related to U.S. catastrophe losses in the 2018 accident year and, to a lesser extent, favorable prior accident year loss reserve development related to the assumed property reinsurance lines of business from catastrophe losses in the 2019 and 2018 accident years.
- (15) Primarily reflects favorable prior accident year loss reserve development related to Superstorm Sandy in the 2012 accident year, Hurricanes Florence and Michael in the 2018 accident year and Hurricanes Harvey and Maria in the 2017 accident year, partially offset by assumed property reinsurance lines of business from both catastrophe and non-catastrophe losses in the 2018 accident year.
- (16) Primarily reflects favorable prior accident year loss reserve development related to Hurricane Irma in the 2017 accident year and, to a lesser extent, Hurricane Matthew in the 2016 accident year, as well as various other losses not classified as catastrophes in recent accident years.
- (17) Primarily reflects favorable prior accident year development related to the surety lines of business from recent accident years.
- (18) Primarily reflects unfavorable prior accident loss reserve development related to the professional liability and other casualty lines of business in the 2015 through 2018 accident years.
- (19) Primarily reflects favorable prior accident year loss reserve development in the surety lines of business in the 2016 and 2017 accident years.
- (20) Represents certain specialty lines of business written through a program administrator in connection with a terminated program in the 2010 and 2009 accident years and reflects favorable loss emergence compared with loss emergence patterns assumed in earlier periods for such business.

(c) Information on Incurred and Paid Loss and LAE Development

The following is information about incurred and paid loss and LAE development, net of reinsurance. The information for 2011 through 2019 is unaudited and is provided as supplementary information. Information is also included for the portion of unpaid loss and LAE, net of reinsurance recoverables, that relate to IBNR and, for the insurance segment, the cumulative number of reported insurance claims. For the reinsurance segment, reported insurance claim information is generally not received from the cedants, and such information is therefore impracticable to disclose.

**Reinsurance Segment
Property**

Accident Year	Incurred Loss and LAE, Net of Reinsurance										As of
	Year Ended December 31,										December 31, 2020
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020	IBNR
	(\$ in millions)										
2011	\$ 1,351.2	\$ 1,342.3	\$ 1,269.4	\$ 1,240.7	\$ 1,235.2	\$ 1,217.1	\$ 1,210.9	\$ 1,209.6	\$ 1,207.7	\$ 1,206.4	\$ —
2012		697.2	579.1	530.3	495.6	478.1	469.4	462.5	460.3	454.9	—
2013			501.2	470.6	444.6	422.1	406.8	403.6	398.1	394.7	0.7
2014				496.4	464.8	451.3	435.2	429.8	425.1	419.7	2.9
2015					368.8	332.0	320.6	306.3	301.9	297.9	4.2
2016						684.1	647.2	596.7	587.9	577.8	11.1
2017							1,174.6	1,179.5	1,148.3	1,127.7	31.9
2018								1,152.7	1,169.4	1,147.8	85.2
2019									988.7	981.5	132.9
2020										1,207.5	648.7
Total Incurred Loss and LAE for the 2011 through 2020 accident years										\$ 7,815.9	

Accident Year	Paid Loss and LAE, Net of Reinsurance									
	Year Ended December 31,									
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020
	(\$ in millions)									
2011	\$ 407.8	\$ 796.4	\$ 1,014.3	\$ 1,129.2	\$ 1,171.0	\$ 1,187.2	\$ 1,195.0	\$ 1,199.7	\$ 1,195.3	\$ 1,197.0
2012		90.3	268.9	377.8	416.7	438.0	448.0	451.2	460.1	461.1
2013			113.1	277.4	361.0	389.8	396.7	399.7	401.4	403.0
2014				109.4	297.6	360.0	382.9	394.0	397.3	398.4
2015					96.0	217.7	278.3	303.1	307.6	308.8
2016						210.5	429.8	504.8	535.1	552.2
2017							324.5	818.5	977.9	1,023.0
2018								309.5	811.8	944.2
2019									265.1	645.5
2020										301.1
Cumulative Paid Loss and LAE for the 2011 through 2020 accident years										\$ 6,234.3
Total incurred loss and LAE for the 2011 through 2020 accident years										\$ 7,815.9
Cumulative paid loss and LAE for the 2011 through 2020 accident years										6,234.3
Unpaid loss and LAE, net of reinsurance recoverables, for accident years prior to 2011										24.4
Unpaid loss and LAE, net of reinsurance recoverables, as of December 31, 2020										\$ 1,606.0

Reinsurance Segment

Casualty & other – Longer-Tailed Lines of Business⁽¹⁾

Accident Year	Incurred Loss and LAE, Net of Reinsurance										As of	
	Year Ended December 31,										December 31, 2020	
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020	IBNR	
	(\$ in millions)											
2011	\$ 996.0	\$ 1,009.6	\$ 994.6	\$ 974.6	\$ 959.1	\$ 949.9	\$ 942.6	\$ 925.5	\$ 920.6	\$ 904.4	\$	94.1
2012		877.5	877.5	875.9	860.8	833.1	829.8	832.4	826.4	819.7		94.4
2013			798.6	802.2	799.2	777.5	776.7	783.0	767.4	740.5		132.1
2014				801.8	791.1	794.3	793.9	790.3	784.8	771.7		160.3
2015					794.8	799.0	797.0	793.7	799.1	799.6		170.5
2016						776.7	776.8	787.4	807.8	842.2		181.1
2017							764.4	765.7	783.4	800.1		263.3
2018								727.3	741.6	752.5		393.1
2019									759.7	761.6		564.3
2020										978.1		867.0
Total Incurred Loss and LAE for the 2011 through 2020 accident years										\$ 8,170.4		

Accident Year	Paid Loss and LAE, Net of Reinsurance											
	Year Ended December 31,											
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020		
	(\$ in millions)											
2011	\$ 29.6	\$ 89.4	\$ 206.4	\$ 373.4	\$ 501.8	\$ 595.1	\$ 663.0	\$ 709.1	\$ 748.2	\$ 763.7		
2012		46.9	106.8	201.1	316.6	435.7	521.3	587.0	624.4	648.7		
2013			22.2	85.1	176.6	296.4	378.0	452.7	494.6	528.5		
2014				29.8	107.5	229.6	342.9	444.7	522.7	580.6		
2015					32.2	100.4	205.0	325.8	455.8	536.5		
2016						34.8	121.8	242.9	370.0	491.1		
2017							34.0	110.6	221.8	347.5		
2018								33.0	104.6	206.7		
2019									29.0	99.7		
2020										47.2		
Cumulative Paid Loss and LAE for the 2011 through 2020 accident years										\$ 4,250.2		
Total incurred loss and LAE for the 2011 through 2020 accident years										\$ 8,170.4		
Cumulative paid loss and LAE for the 2011 through 2020 accident years										4,250.2		
Unpaid loss and LAE, net of reinsurance recoverables, for accident years prior to 2011										840.0		
Unpaid loss and LAE, net of reinsurance recoverables, as of December 31, 2020										\$ 4,760.2		

(1) Represents the following reinsurance lines of business: directors' and officers' liability; errors and omissions liability; general liability; and medical malpractice.

Reinsurance Segment
Casualty & other – Shorter-Tailed Lines of Business(1)

Accident Year	Incurred Loss and LAE, Net of Reinsurance										As of	
	Year Ended December 31,										December 31, 2020	
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020	IBNR	
	(\$ in millions)											
2011	\$ 1,031.2	\$ 1,023.6	\$ 1,007.6	\$ 992.8	\$ 973.0	\$ 963.7	\$ 959.8	\$ 976.0	\$ 972.9	\$ 966.4	\$	10.5
2012		1,022.3	1,059.9	1,056.8	1,005.5	983.9	958.9	948.4	941.4	933.9		12.4
2013			850.8	868.8	838.4	823.4	804.1	790.3	780.7	769.6		18.7
2014				850.4	833.0	808.8	784.3	772.4	755.0	752.5		30.9
2015					763.4	768.6	784.0	798.4	776.7	776.2		30.7
2016						1,118.0	1,124.4	1,111.6	1,100.3	1,092.6		41.9
2017							1,095.9	1,046.3	1,026.9	994.5		81.1
2018								1,255.4	1,266.1	1,270.7		148.9
2019									1,408.6	1,411.8		280.8
2020										1,408.2		799.3
Total Incurred Loss and LAE for the 2011 through 2020 accident years										\$ 10,376.4		

Accident Year	Paid Loss and LAE, Net of Reinsurance											
	Year Ended December 31,											
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020		
	(\$ in millions)											
2011	\$ 376.5	\$ 606.4	\$ 752.7	\$ 820.9	\$ 858.8	\$ 880.2	\$ 894.5	\$ 906.1	\$ 915.1	\$ 918.1	\$	
2012		354.8	614.5	740.0	792.7	828.3	846.5	860.2	871.4	876.1		
2013			265.4	523.5	613.3	663.0	685.5	704.9	717.5	723.9		
2014				251.2	421.1	523.3	572.9	604.6	627.8	636.8		
2015					218.5	409.1	518.7	577.7	629.1	653.2		
2016						367.2	685.6	828.7	921.3	973.8		
2017							342.8	639.1	793.5	867.6		
2018								397.9	774.4	952.2		
2019									462.0	881.3		
2020										418.0		
Cumulative Paid Loss and LAE for the 2011 through 2020 accident years										\$ 7,901.0		

Total incurred loss and LAE for the 2011 through 2020 accident years										\$ 10,376.4		
Cumulative paid loss and LAE for the 2011 through 2020 accident years										7,901.0		
Unpaid loss and LAE, net of reinsurance recoverables, for accident years prior to 2011										141.7		
Unpaid loss and LAE, net of reinsurance recoverables, as of December 31, 2020										\$ 2,617.1		

(1) Primarily represents the following reinsurance lines of business: ocean marine and aviation; auto liability; accident & health; mortgage reinsurance; surety; and credit.

Insurance Segment
RSUI - Property

Accident Year	Incurred Loss and LAE, Net of Reinsurance										As of December 31, 2020	
	Year Ended December 31,										IBNR	Cumulative Number of Reported Claims ⁽¹⁾
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)		
	(\$ in millions)											
2011	\$ 168.8	\$ 162.0	\$ 160.5	\$ 159.9	\$ 159.0	\$ 159.3	\$ 159.3	\$ 159.9	\$ 160.2	\$ 160.2	\$ 0.9	2,207
2012		270.9	262.5	258.6	256.1	235.1	236.1	235.5	228.3	228.4	1.1	2,312
2013			157.3	157.2	150.4	152.1	152.4	152.5	154.3	154.4	1.5	2,395
2014				170.7	166.2	155.9	153.7	153.8	153.6	153.4	1.4	3,091
2015					140.5	136.1	142.6	141.3	140.1	140.2	2.3	3,004
2016						181.4	170.5	172.9	173.9	175.3	3.1	3,367
2017							330.7	306.5	304.1	300.0	17.6	3,689
2018								259.9	265.7	256.7	28.3	3,033
2019									204.3	200.9	25.2	3,266
2020										357.2	77.7	3,750
Total Incurred Loss and LAE for the 2011 through 2020 accident years										\$ 2,126.7		

Accident Year	Paid Loss and LAE, Net of Reinsurance											
	Year Ended December 31,											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)		
	(\$ in millions)											
2011	\$ 61.0	\$ 118.4	\$ 144.0	\$ 154.3	\$ 156.1	\$ 157.2	\$ 157.6	\$ 158.6	\$ 158.8	\$ 159.0		
2012		62.0	157.5	181.9	193.5	202.4	216.2	216.7	219.2	219.4		
2013			72.7	118.7	134.0	141.1	144.0	148.7	151.5	151.8		
2014				93.2	133.8	145.0	148.8	150.3	151.3	151.6		
2015					70.8	106.9	120.0	129.8	136.5	138.0		
2016						72.0	127.1	147.1	161.2	167.3		
2017							88.6	213.3	253.3	267.3		
2018								62.3	175.1	202.9		
2019									79.8	145.8		
2020										118.8		
Cumulative Paid Loss and LAE for the 2011 through 2020 accident years										\$ 1,721.9		
Total incurred loss and LAE for the 2011 through 2020 accident years										\$ 2,126.7		
Cumulative paid loss and LAE for the 2011 through 2020 accident years										1,721.9		
Unpaid loss and LAE, net of reinsurance recoverables, for accident years prior to 2011										3.7		
Unpaid loss and LAE, net of reinsurance recoverables, as of December 31, 2020										\$ 408.5		

(1) Represents claims reported by insured claimants.

Insurance Segment
RSUI - Casualty

												As of December 31, 2020	
Accident Year	Incurred Loss and LAE, Net of Reinsurance											IBNR	Cumulative Number of Reported Claims ⁽¹⁾
	Year Ended December 31,												
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020			
	(\$ in millions)												
2011	\$ 205.9	\$ 205.9	\$ 208.3	\$ 212.1	\$ 211.6	\$ 206.8	\$ 202.0	\$ 189.7	\$ 184.9	\$ 183.2	\$ 10.9	7,565	
2012		226.3	226.3	230.3	242.8	238.9	233.8	231.9	221.8	210.2	17.0	7,708	
2013			264.8	264.8	277.6	280.1	279.0	273.5	269.6	261.4	33.6	8,759	
2014				292.0	322.7	321.1	322.4	320.3	310.9	300.3	37.3	10,260	
2015					300.2	300.2	304.2	302.2	291.4	289.8	67.3	9,455	
2016						290.7	293.7	301.3	312.0	317.5	68.7	9,034	
2017							282.5	286.4	299.1	311.1	101.7	8,924	
2018								290.0	301.5	310.0	130.9	9,181	
2019									316.9	332.2	225.8	8,367	
2020										393.9	343.3	6,671	
Total Incurred Loss and LAE for the 2011 through 2020 accident years										\$ 2,909.6			
Accident Year	Paid Loss and LAE, Net of Reinsurance												
	Year Ended December 31,												
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020			
	(\$ in millions)												
2011	\$ 6.5	\$ 31.9	\$ 66.7	\$ 100.3	\$ 118.4	\$ 138.5	\$ 150.0	\$ 153.6	\$ 156.4	\$ 157.4		157.4	
2012		6.8	38.4	96.0	125.5	144.0	159.3	166.7	176.1	178.5		178.5	
2013			10.1	50.0	103.4	146.2	176.6	191.3	203.9	212.9		212.9	
2014				13.0	69.5	130.1	179.1	206.5	234.6	249.1		249.1	
2015					9.0	47.3	96.6	129.2	176.5	196.2		196.2	
2016						13.7	69.2	123.6	197.8	220.8		220.8	
2017							9.4	63.6	115.6	163.1		163.1	
2018								13.0	70.4	116.8		116.8	
2019									12.9	57.9		57.9	
2020										12.6		12.6	
Cumulative Paid Loss and LAE for the 2011 through 2020 accident years										\$ 1,565.3			
Total incurred loss and LAE for the 2011 through 2020 accident years											\$ 2,909.6		
Cumulative paid loss and LAE for the 2011 through 2020 accident years											1,565.3		
Unpaid loss and LAE, net of reinsurance recoverables, for accident years prior to 2011											61.9		
Unpaid loss and LAE, net of reinsurance recoverables, as of December 31, 2020											\$ 1,406.2		

(1) Represents claims reported by insured claimants.

Insurance Segment
CapSpecialty(1)

Accident Year	Incurred Loss and LAE, Net of Reinsurance										As of December 31, 2020	
	Year Ended December 31,										IBNR	Cumulative Number of Reported Claims(2)
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020		
	(\$ in millions)											
2011	\$ 74.0	\$ 71.2	\$ 74.4	\$ 76.9	\$ 79.4	\$ 78.4	\$ 78.2	\$ 77.7	\$ 77.6	\$ 77.2	\$ 0.3	5,697
2012		72.7	71.8	66.2	69.3	69.7	68.7	68.8	69.1	69.1	0.4	5,266
2013			78.7	81.4	85.2	84.4	87.2	88.6	87.4	87.4	0.5	5,177
2014				102.8	102.7	101.0	100.2	98.6	97.6	97.7	1.5	6,000
2015					111.0	111.8	109.2	109.7	112.4	115.2	3.3	5,628
2016						129.4	132.4	132.7	135.0	133.4	6.5	6,233
2017							147.3	143.7	157.6	156.2	16.5	6,484
2018								164.1	173.3	176.5	39.9	6,664
2019									193.0	188.9	93.8	5,850
2020										214.9	161.1	4,279
Total Incurred Loss and LAE for the 2011 through 2020 accident years										\$ 1,316.5		

Accident Year	Paid Loss and LAE, Net of Reinsurance											
	Year Ended December 31,											
	2011 (unaudited)	2012 (unaudited)	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018 (unaudited)	2019 (unaudited)	2020		
	(\$ in millions)											
2011	\$ 16.3	\$ 31.9	\$ 44.7	\$ 57.7	\$ 67.3	\$ 69.8	\$ 73.8	\$ 75.7	\$ 76.0	\$ 76.0		
2012		18.6	38.6	46.9	57.2	63.3	65.0	66.5	67.7	67.7		
2013			23.4	48.0	62.0	69.6	78.6	84.5	85.3	86.1		
2014				34.0	56.3	71.9	83.1	89.8	93.1	94.2		
2015					30.9	57.4	73.5	88.8	101.1	106.7		
2016						30.3	64.0	86.6	106.1	116.3		
2017							30.1	65.6	95.1	116.1		
2018								31.7	72.4	102.1		
2019									29.8	62.5		
2020										27.8		
Cumulative Paid Loss and LAE for the 2011 through 2020 accident years										\$ 855.5		
Total incurred loss and LAE for the 2011 through 2020 accident years										\$ 1,316.5		
Cumulative paid loss and LAE for the 2011 through 2020 accident years										855.5		
Unpaid loss and LAE, net of reinsurance recoverables, for accident years prior to 2011										7.9		
Unpaid loss and LAE, net of reinsurance recoverables, as of December 31, 2020										\$ 468.9		

- (1) The vast majority of the CapSpecialty's loss and LAE reserves relate to its casualty lines of business.
(2) Represents claims reported by insured claimants.

Loss and LAE Reserve Summary and Reconciliation to Consolidated Balance Sheet

	Unpaid loss and LAE as of December 31, 2020(1)		
	Gross Loss and LAE Reserves	Reinsurance Recoverables on Unpaid Losses	Net Loss and LAE Reserves
	(\$ in millions)		
Reinsurance Segment:			
Property	\$ 2,086.0	\$ 480.0	\$ 1,606.0
Casualty & other - Longer-Tailed Lines of Business	4,863.7	103.5	4,760.2
Casualty & other - Shorter-Tailed Lines of Business	2,864.3	247.2	2,617.1
	<u>9,814.0</u>	<u>830.7</u>	<u>8,983.3</u>
Insurance Segment:			
RSUI - Property	630.6	222.1	408.5
RSUI - Casualty	<u>2,060.7</u>	<u>654.5</u>	<u>1,406.2</u>
RSUI	2,691.3	876.6	1,814.7
CapSpecialty	<u>535.6</u>	<u>66.7</u>	<u>468.9</u>
	<u>3,226.9</u>	<u>943.3</u>	<u>2,283.6</u>
Eliminations	<u>(70.3)</u>	<u>(70.3)</u>	<u>—</u>
Total	\$ 12,970.6	\$ 1,703.7	\$ 11,266.9

(1) Includes unallocated LAE, which aggregate to 1.0 percent of gross loss and LAE reserves as of December 31, 2020. Net loss and LAE reserves by component are shown in the preceding tables, and consolidated gross loss and LAE reserves is presented in the consolidated balance sheets.

(d) Supplementary Information on Historical Loss and LAE Duration (Unaudited)

The following table presents supplemental information about average historical loss and LAE duration, net of reinsurance, as of December 31, 2020.

		Average Annual Percentage Payout of Loss and LAE Incurred, Net of Reinsurance As of December 31, 2020									
	Years	1	2	3	4	5	6	7	8	9	10
Reinsurance Segment:											
Property		28.5%	40.3%	17.1%	6.9%	2.8%	1.1%	0.5%	0.9%	-0.1%	0.1%
Casualty & other - Longer-Tailed Lines of Business		4.1%	8.9%	13.4%	15.6%	13.9%	10.2%	7.2%	4.7%	3.6%	1.7%
Casualty & other - Shorter-Tailed Lines of Business		33.5%	27.8%	13.8%	7.0%	4.4%	2.6%	1.4%	1.1%	0.7%	0.3%
Insurance Segment:											
RSUI - Property		38.9%	34.1%	11.1%	5.5%	2.7%	2.3%	0.6%	0.6%	0.1%	0.1%
RSUI - Casualty		3.7%	15.8%	18.5%	15.9%	10.1%	7.7%	4.7%	3.2%	1.3%	0.5%
CapSpecialty		20.7%	22.8%	16.3%	13.3%	9.3%	4.2%	2.2%	1.6%	0.2%	0.0%

7. Credit Agreements

On July 31, 2017, Alleghany entered into a five-year credit agreement (the “Credit Agreement”) with certain lenders party thereto, which provides for an unsecured revolving credit facility in an aggregate principal amount of up to \$300.0 million. The credit facility is scheduled to expire on July 31, 2022, unless earlier terminated. Borrowings under the Credit Agreement will be available for working capital and general corporate purposes, including permitted acquisitions and repurchases of Common Stock. Borrowings under the Credit Agreement bear a floating rate of interest based in part on Alleghany’s credit rating, among other factors. The Credit Agreement contains representations, warranties and covenants customary for bank loan facilities of this nature.

There were no borrowings under the Credit Agreement in 2020, 2019 and 2018 and there were no outstanding borrowings under the Credit Agreement as of December 31, 2020.

In addition to the Credit Agreement, several of Alleghany Capital’s subsidiaries have credit agreements with third-party financial institutions. Any borrowings under such agreements are not guaranteed by Alleghany or Alleghany Capital. See Note 8(c) for information on the borrowings arising from these credit agreements.

8. Debt

(a) Alleghany Senior Notes

On May 18, 2020, Alleghany completed a public offering of \$500.0 million aggregate principal amount of its 3.625% senior notes due on May 15, 2030 (the “2030 Senior Notes”). The 2030 Senior Notes are unsecured and unsubordinated general obligations of Alleghany. Interest on the 2030 Senior Notes is payable semi-annually in arrears on May 15 and November 15 of each year. The terms of the 2030 Senior Notes permit redemption prior to maturity. The indenture under which the 2030 Senior Notes were issued contains covenants that impose conditions on Alleghany’s ability to create liens on the capital stock of AIHL, TransRe or RSUI. The 2030 Senior Notes were issued at approximately 99.9 percent of par, resulting in proceeds after underwriting discount, commissions and other expenses of \$494.8 million, and an effective yield of approximately 3.64 percent. Approximately \$4.6 million of underwriting discount, commissions and other expenses were recorded as deferred charges, which are amortized over the life of the 2030 Senior Notes.

On September 9, 2014, Alleghany completed a public offering of \$300.0 million aggregate principal amount of its 4.90% senior notes due on September 15, 2044 (the “2044 Senior Notes”). The 2044 Senior Notes are unsecured and unsubordinated general obligations of Alleghany. Interest on the 2044 Senior Notes is payable semi-annually on March 15 and September 15 of each year. The terms of the 2044 Senior Notes permit redemption prior to their maturity. The indenture under which the 2044 Senior Notes were issued contains covenants that impose conditions on Alleghany’s ability to create liens on, or engage in sales of, the capital stock of AIHL, TransRe or RSUI. The 2044 Senior Notes were issued at approximately 99.3 percent of par, resulting in proceeds after underwriting discount, commissions and other expenses of \$294.3 million and an effective yield of approximately 5.0 percent.

On June 26, 2012, Alleghany completed a public offering of \$400.0 million aggregate principal amount of its 4.95% senior notes due on June 27, 2022 (the “2022 Senior Notes”). The 2022 Senior Notes are unsecured and unsubordinated general obligations of Alleghany. Interest on the 2022 Senior Notes is payable semi-annually on June 27 and December 27 of each year. The terms of the 2022 Senior Notes permit redemption prior to their maturity. The indenture under which the 2022 Senior Notes were issued contains covenants that impose conditions on Alleghany’s ability to create liens on, or engage in sales of, the capital stock of AIHL, TransRe or RSUI. The 2022 Senior Notes were issued at approximately 99.9 percent of par, resulting in proceeds after underwriting discount, commissions and other expenses of \$396.0 million and an effective yield of approximately 5.05 percent.

On September 20, 2010, Alleghany completed a public offering of \$300.0 million aggregate principal amount of its 5.625% senior notes due on September 15, 2020 (the “2020 Senior Notes”). The 2020 Senior Notes are unsecured and unsubordinated general obligations of Alleghany. Interest on the 2020 Senior Notes is payable semi-annually on March 15 and September 15 of each year. The terms of the 2020 Senior Notes permit redemption prior to their maturity. The indenture under which the 2020 Senior Notes were issued contains covenants that impose conditions on Alleghany’s ability to create liens on, or engage in sales of, the capital stock of AIHL or RSUI. The 2020 Senior Notes were issued at approximately 99.6 percent of par, resulting in proceeds after underwriting discount, commissions and other expenses of \$298.9 million and an effective yield of approximately 5.67 percent.

On January 15, 2020, Alleghany redeemed all of its outstanding 2020 Senior Notes for \$312.7 million, consisting of the \$300.0 million aggregate principal amount redeemed, \$7.1 million of redemption premium and \$5.6 million of accrued and unpaid interest on the principal amount being redeemed to the date of redemption. As a result of this early extinguishment of debt, Alleghany recorded a realized loss, before tax, of \$7.1 million in 2020.

(b) TransRe Senior Notes

On November 23, 2009, TransRe completed a public offering of \$350.0 million aggregate principal amount of its 8.00% senior notes due on November 30, 2039 (the “2039 Senior Notes”). The 2039 Senior Notes are unsecured and unsubordinated general obligations of TransRe and are not guaranteed by Alleghany. Interest on the 2039 Senior Notes is payable semi-annually. The terms of the 2039 Senior Notes permit redemption prior to their maturity. The indentures under which the 2039 Senior Notes were issued contain covenants that impose conditions on TransRe’s ability to create liens on, or engage in sales of, the capital stock of certain of its subsidiaries, including Transatlantic Reinsurance Company, TransRe Europe S.A. or Fair American Insurance and Reinsurance Company.

(c) Alleghany Capital Operating Subsidiaries

The debt associated with Alleghany Capital's operating subsidiaries totaled \$556.9 million and \$367.1 million as of December 31, 2020 and 2019, respectively, and is generally used to support working capital needs and to help finance acquisitions. As of December 31, 2020, the \$556.9 million includes:

- \$253.1 million of borrowings by Jazwares under its available credit facilities to support its seasonal peak working capital requirements and borrowings incurred and assumed from its acquisition of WCT in October 2019 and its acquisition of Kelly Toy in April 2020;
- \$98.3 million of borrowings by W&W|AFCO Steel under its available credit facilities and term loans, including borrowings incurred and assumed from its acquisition of Hirschfeld;
- \$72.8 million of borrowings by Wilbert under its available credit facility and term loans;
- \$64.1 million of term loans at Kentucky Trailer primarily related to borrowings to finance small acquisitions, including its acquisitions of a controlling interest in two manufacturers of aluminum feed transportation equipment in December 2018 and July 2019, and borrowings under its available credit facilities;
- \$36.5 million of borrowings by IPS under its available credit facility and term loans, in part to finance a small acquisition in May 2019; and
- \$32.1 million of term loans at PCT primarily related to borrowings to finance the acquisition of a waterjet orifice and nozzle manufacturer in 2016 and the acquisition of a consumable cutting tool manufacturer in June 2019;

None of the above liabilities are guaranteed by Alleghany or Alleghany Capital. In December 2019, third-party, floating-rate term loans at Concord were repaid and replaced with approximately \$33 million of intercompany floating-rate debt funded by the Alleghany parent company. The intercompany debt and related interest expenses are eliminated at the Alleghany consolidated level.

9. Income Taxes

The following table presents income tax expense (benefit) for 2020, 2019 and 2018:

	Federal	State	Foreign	Total
	(\$ in millions)			
Year ended December 31, 2020				
Current	\$ 6.9	\$ 9.7	\$ 58.3	\$ 74.9
Deferred	(45.8)	0.8	0.8	(44.2)
	<u>\$ (38.9)</u>	<u>\$ 10.5</u>	<u>\$ 59.1</u>	<u>\$ 30.7</u>
Year ended December 31, 2019				
Current	\$ 87.9	\$ 12.0	\$ 70.8	\$ 170.7
Deferred	62.9	0.5	(0.7)	62.7
	<u>\$ 150.8</u>	<u>\$ 12.5</u>	<u>\$ 70.1</u>	<u>\$ 233.4</u>
Year ended December 31, 2018				
Current	\$ (83.3)	\$ 5.6	\$ 32.0	\$ (45.7)
Deferred	29.9	0.9	(0.1)	30.7
	<u>\$ (53.4)</u>	<u>\$ 6.5</u>	<u>\$ 31.9</u>	<u>\$ (15.0)</u>

(Losses) earnings before income taxes from domestic operations were (\$21.0) million, \$952.4 million and (\$46.4) million in 2020, 2019 and 2018, respectively. Earnings before income taxes from foreign operations were \$178.6 million, \$171.2 million and \$86.0 million in 2020, 2019 and 2018, respectively. Foreign tax expense was primarily attributable to the U.K., Canada, Switzerland and France. Alleghany treats taxes due on U.S. inclusions in taxable income related to Global Intangible Low-Taxed Income as a current-period expense when incurred.

The following table presents the difference between the federal income tax rate and the effective income tax rate:

	2020	Year Ended December 31, 2019	2018
Federal income tax rate	21.0%	21.0%	21.0%
Foreign tax expense reduced by foreign tax credits	6.9	0.4	(0.3)
Income subject to dividends-received deduction	(1.3)	(0.3)	(18.3)
Tax-exempt interest	(6.0)	(1.0)	(36.0)
State taxes, net of federal tax benefit	4.9	0.9	13.8
Prior period adjustment	(2.6)	0.2	(0.1)
Other, net (1)	(3.4)	(0.4)	(18.1)
Effective tax rate	19.5%	20.8%	(38.0)%

(1) For 2020, includes various general business credits and tax benefits resulting from corporate acquisitions and dispositions, partially offset by disallowed expense deductions primarily related to certain executive compensation paid in 2020.

The effective tax rate in 2020 primarily reflects modest pre-tax income and the resulting increase of the impact from permanent tax benefits, such as tax-exempt interest income and dividends-received deductions, when expressed on an effective tax rate basis. The higher effective tax rate in 2019 primarily reflects significant pre-tax earnings and the resulting decrease from the impact of these permanent tax benefits when expressed on an effective tax rate basis.

The increase in effective tax rate in 2019 compared with 2018 primarily reflects the impact of higher earnings before income taxes and, to a lesser extent, lower tax-exempt interest income arising from municipal bond securities and lower dividends-received deductions, partially offset by higher state income taxes.

The Coronavirus Aid, Relief and Economic Security Act (the “CARES Act”) was signed into law on March 27, 2020. Among other provisions, the CARES Act delayed certain employer payroll tax remittance deadlines and created or expanded certain income tax credits and loss carryback provisions. The beneficial impact of the CARES Act to Alleghany is currently not material.

The following table presents the tax effects of temporary differences that give rise to the deferred tax assets and deferred tax liabilities as of December 31, 2020 and 2019:

	2020	As of December 31, 2019
	(\$ in millions)	
Deferred tax assets:		
Loss and LAE reserves	\$ 132.3	\$ 118.9
Foreign tax credit carry forward	74.1	53.8
Compensation accruals	87.5	94.1
Unearned premiums	112.2	97.4
Allowance for credit losses on available for sale securities	5.7	6.5
State net operating loss carry forward	12.5	22.8
Other	98.0	113.7
Gross deferred tax assets before valuation allowance	522.3	507.2
Valuation allowance	(12.5)	(22.8)
Gross deferred tax assets	509.8	484.4
Deferred tax liabilities:		
Net unrealized gains on investments	294.7	274.8
Deferred acquisition costs	128.4	113.4
Purchase accounting adjustments	11.7	11.7
Other	118.5	78.6
Gross deferred tax liabilities	553.3	478.5
Net deferred tax (liabilities) assets	\$ (43.5)	\$ 5.9

Other deferred tax assets include significant amounts of foreign currency exchange losses. Our foreign tax credit carry forwards begin to expire in 2028. A valuation allowance is provided against deferred tax assets when, in the opinion of

management, it is more likely than not that a portion of the deferred tax asset will not be realized. As of December 31, 2020 and 2019, Alleghany recognized \$12.5 million and \$22.8 million, respectively, of deferred tax assets for certain state net operating and capital loss carryovers, and a valuation allowance of \$12.5 million and \$22.8 million, respectively, has been established against these deferred tax assets as Alleghany does not currently anticipate it will generate sufficient income in these states to absorb such loss carryovers.

Alleghany's income tax return is currently under examination by the Internal Revenue Service for the 2015, 2016 and 2017 tax years. The following table presents the tax years of Alleghany and TransRe tax returns that remain subject to examination by major tax jurisdictions as of December 31, 2020.

Major Tax Jurisdiction	Open Tax Years
Australia	2015 - 2020
Canada	2016 - 2020
France	2017 - 2020
Germany	2019 - 2020
Hong Kong	2014 - 2020
Japan	2020
Luxembourg	2019 - 2020
Singapore	2016 - 2020
Switzerland	2018 - 2020
U.K.	2014 - 2020
U.S.	2015 - 2020

Alleghany believes that, as of December 31, 2020, it had no material uncertain tax positions. Interest and penalties related to unrecognized tax expenses (benefits) are recognized in income tax expense, when applicable. There were no material liabilities for interest or penalties accrued as of December 31, 2020.

10. Stockholders' Equity

(a) Common Stock Repurchases

In November 2015, the Alleghany Board of Directors authorized the repurchase of shares of Common Stock at such times and at prices as management determines to be advisable, up to an aggregate of \$400.0 million. In June 2018, the Alleghany Board of Directors authorized, upon the completion of the program authorized in 2015, the repurchase of additional shares of Common Stock at such times and at prices as management determines to be advisable, up to an aggregate of \$400.0 million. In September 2019, the Alleghany Board of Directors authorized, upon the completion of the program authorized in 2018, the repurchase of additional shares of Common Stock at such times and at prices as management determines to be advisable, up to an aggregate of \$500.0 million. As of December 31, 2020, Alleghany had \$432.4 million remaining in the aggregate under its share repurchase authorizations.

The following table presents the shares of Common Stock that Alleghany repurchased in 2020, 2019 and 2018:

	2020	Year Ended December 31,		2018
		2019		
Shares repurchased	333,393	215,091		822,849
Cost of shares repurchased (in millions)	\$ 194.8	\$ 144.4	\$	491.6
Average price per share repurchased	\$ 584.18	\$ 671.44	\$	597.48

(b) Accumulated Other Comprehensive Income (Loss)

The following table presents a reconciliation of the changes during 2020 and 2019 in accumulated other comprehensive income attributable to Alleghany stockholders:

	Unrealized Appreciation of Investments	Unrealized Currency Translation Adjustment	Retirement Plans ⁽¹⁾	Total
	(\$ in millions)			
Balance as of January 1, 2020	\$ 321.0	\$ (121.8)	\$ (27.9)	\$ 171.3
Other comprehensive income (loss), net of tax:				
Other comprehensive income (loss) before reclassifications	277.0	22.4	(0.4)	299.0
Reclassifications from accumulated other comprehensive income	(33.1)	—	15.2	(17.9)
Total	243.9	22.4	14.8	281.1
Balance as of December 31, 2020	\$ 564.9	\$ (99.4)	\$ (13.1)	\$ 452.4
	Unrealized Appreciation of Investments	Unrealized Currency Translation Adjustment	Retirement Plans	Total
	(\$ in millions)			
Balance as of January 1, 2019	\$ (61.6)	\$ (124.7)	\$ (15.7)	\$ (202.0)
Other comprehensive income (loss), net of tax:				
Other comprehensive income (loss) before reclassifications	403.0	2.9	(12.2)	393.7
Reclassifications from accumulated other comprehensive income	(20.4)	—	—	(20.4)
Total	382.6	2.9	(12.2)	373.3
Balance as of December 31, 2019	\$ 321.0	\$ (121.8)	\$ (27.9)	\$ 171.3

(1) See Note 15 for further information on retirement plan-related reclassifications from accumulated other comprehensive income.

The following table presents unrealized appreciation of investment reclassifications out of accumulated other comprehensive income attributable to Alleghany stockholders during 2020 and 2019:

Accumulated Other Comprehensive Income Component	Line in Consolidated Statement of Earnings	Year Ended December 31,	
		2020	2019
		(\$ in millions)	
Unrealized appreciation of investments:	Net realized capital gains ⁽¹⁾	\$ (49.9)	\$ (45.5)
	Change in allowance for credit losses on available for sale securities	8.0	19.7
	Income taxes	8.8	5.4
Total reclassifications:	Net earnings	\$ (33.1)	\$ (20.4)

(1) For 2020, excludes: (i) the Concord Settlement Gain; (ii) \$76.0 million of impairment charge from a write-down of SORC oil field assets; (iii) the Wilbert Remeasurement Gain; (iv) a \$7.1 million realized loss as a result of an early redemption of debt; and (v) a \$5.0 million realized gain resulting from a reduction of certain PCT contingent consideration liabilities. For 2019, excludes: (i) a \$38.4 million loss on the Put Option; and (ii) a \$13.6 million loss from the December 2019 sale from a privately held investment accounted for under the equity method. See Note 4(e) for additional information.

(c) Regulations and Dividend Restrictions

As of December 31, 2020, approximately \$7.2 billion of Alleghany's total equity of \$8.8 billion was unavailable for dividends or advances to Alleghany from its subsidiaries. The remaining \$1.6 billion was available for dividends or advances to Alleghany from its subsidiaries, or was retained at the Alleghany parent company-level and, as such, was available to pay dividends to Alleghany's stockholders as of December 31, 2020.

The ability of Alleghany's reinsurance and insurance subsidiaries to pay dividends or other distributions is subject to the laws and regulations applicable to each subsidiary, as well as each subsidiary's need to maintain capital requirements adequate to maintain its operations and financial strength ratings issued by independent rating agencies.

In the U.S., Alleghany's reinsurance and insurance subsidiaries are subject to insurance laws and regulations that restrict the amount and timing of dividends they may pay without the prior approval of regulatory authorities. Under the insurance holding company laws and regulations, Alleghany's reinsurance and insurance subsidiaries may not pay an "extraordinary"

dividend or distribution without the approval of state insurance regulators. In general, an “extraordinary” dividend or distribution is defined as a dividend or distribution that, together with other dividends and distributions made within the preceding 12 months, exceeds the lesser (or, in some jurisdictions, the greater) of (i) 10 percent of the statutory surplus of the reinsurer or insurer as of the end of the prior calendar year (or, in certain states, as of the end of the prior quarter) and (ii) the net income during the prior calendar year (or, in certain states, the adjusted statutory net investment income). In addition, certain states where Alleghany’s reinsurance and insurance subsidiaries are domiciled prohibit a domestic insurance company from paying dividends except out of earned surplus.

TransRe’s operations are also regulated in various foreign jurisdictions with respect to currency, amount and type of security deposits, amount and type of reserves and amount and type of local investment. Regulations governing constitution of technical reserves and remittance balances in some countries may hinder remittance of profits and repatriation of assets. International operations and assets held abroad may also be adversely affected by political and other developments in foreign countries, including possible tax changes, nationalization and changes in regulatory policy, as well as by consequences of hostilities and unrest. The risks of such occurrences and their overall effect upon TransRe vary from country to country and cannot easily be predicted.

The following table presents the dividends paid to Alleghany by its reinsurance and insurance subsidiaries in 2020, 2019 and 2018:

	As of December 31,		
	2020	2019 ⁽¹⁾	2018
	(\$ in millions)		
TransRe ⁽²⁾	\$ 210.0	\$ 301.0	\$ 300.0
RSUI	225.0	100.0	100.0
Total	\$ 435.0	\$ 401.0	\$ 400.0

(1) Includes \$101.0 million representing the July 1, 2019 carrying value of TransRe’s ownership interest in CapSpecialty, which was transferred to Alleghany.

(2) In 2020, 2019 and 2018, TRC paid cash dividends of \$245.0 million, \$220.0 million and \$280.0 million, respectively, to the TransRe holding company. In addition, in 2019, TRC transferred its ownership interest in CapSpecialty to the TransRe holding company, and consequently, the TransRe holding company recorded a dividend from TRC in the amount of \$101.0 million.

As of December 31, 2020, a maximum amount of \$72.8 million was available for dividends by TRC without prior approval of the applicable regulatory authorities. Aside from Alleghany’s reinsurance and insurance subsidiaries, dividends are regularly paid to Alleghany from the subsidiaries of Alleghany Capital, where there are generally no regulatory restrictions on dividends being paid from retained earnings.

The statutory net income of Alleghany’s reinsurance and insurance subsidiaries was \$274.8 million and \$690.9 million for the years ended December 31, 2020 and 2019, respectively. As of December 31, 2020 and 2019, the combined statutory capital and surplus of Alleghany’s reinsurance and insurance subsidiaries was \$6.8 billion and \$7.0 billion, respectively. As of December 31, 2020, the amount of statutory capital and surplus necessary to satisfy regulatory requirements was not significant in relation to the actual statutory capital and surplus of Alleghany’s reinsurance and insurance companies in the U.S.

Aside from Alleghany’s reinsurance and insurance subsidiaries, Alleghany Capital’s subsidiaries pay dividends to Alleghany Capital based primarily on each subsidiary’s need to maintain its operations. In 2020, 2019 and 2018, Alleghany Capital subsidiaries paid approximately \$60.9 million, \$82.4 million and \$26.6 million of dividends to Alleghany Capital, respectively. Federal income taxes for most Alleghany Capital subsidiaries are incurred at the Alleghany Capital corporate level. As such, these dividends were arrived at after deducting a provision for estimated income taxes to be paid at the Alleghany Capital-level, as applicable. Income tax provisions are finalized when tax returns are filed in future periods.

(d) Special Dividends

In February 2018, the Alleghany Board of Directors declared a special dividend of \$10.00 per share for stockholders of record on March 5, 2018. On March 15, 2018, Alleghany paid dividends to stockholders totaling \$154.0 million. In February 2020, the Alleghany Board of Directors declared a special dividend of \$15.00 per share for stockholders of record on March 5, 2020. On March 16, 2020 Alleghany paid dividends to stockholders totaling \$215.0 million.

11. Earnings Per Share of Common Stock

The following table presents a reconciliation of the earnings and share data used in the basic and diluted earnings per share computations for 2020, 2019 and 2018:

	Year Ended December 31,		
	2020	2019	2018
	(\$ in millions, except share amounts)		
Net earnings available to Alleghany stockholders	\$ 101.8	\$ 857.8	\$ 39.5
Effect of dilutive securities	(1.2)	—	—
Income available to common stockholders for diluted earnings per share	<u>\$ 100.6</u>	<u>\$ 857.8</u>	<u>\$ 39.5</u>
Weighted average common shares outstanding applicable to basic earnings per share	14,257,793	14,431,892	15,062,567
Effect of dilutive securities	25,825	11,584	—
Adjusted weighted average common shares outstanding applicable to diluted earnings per share	<u>14,283,618</u>	<u>14,443,476</u>	<u>15,062,567</u>
Contingently issuable shares ⁽¹⁾	34,148	48,468	23,947

(1) Contingently issuable shares were potentially available in the periods presented, but were not included in the diluted earnings per share computations because the impact was anti-dilutive to the earnings per share calculation.

12. Commitments and Contingencies

(a) Legal Proceedings

Certain of Alleghany's subsidiaries are parties to pending litigation and claims in connection with the ordinary course of their businesses. Each such subsidiary makes provisions for estimated losses to be incurred in such litigation and claims, including legal costs. In the opinion of management, such provisions are adequate, and management does not believe that any pending litigation will have a material adverse effect on Alleghany's consolidated results of operations, financial position or cash flows.

(b) Leases

Alleghany and its subsidiaries lease certain facilities, land, furniture and equipment under long-term, non-cancellable lease agreements that expire at various dates through 2040. Most of Alleghany's leases relate to office facilities. Alleghany's lease agreements do not contain any material restrictive covenants and substantially all are considered to be operating leases.

Lease expense was \$45.4 million, \$40.0 million and \$38.8 million in 2020, 2019 and 2018, respectively. The following table presents Alleghany's consolidated lease liabilities and right-of-use lease assets related to operating leases as of December 31, 2020:

	As of December 31, 2020
	(\$ in millions)
<u>Maturity of lease payments, by year</u>	
1 year or less	\$ 48.5
More than 1 year to 2 years	38.7
More than 2 years to 3 years	35.4
More than 3 years to 4 years	32.6
More than 4 years to 5 years	29.0
More than 5 years	159.8
Total lease payments ⁽¹⁾	344.0
Less: interest ⁽²⁾	(88.5)
Lease liabilities ⁽³⁾	<u>\$ 255.5</u>
Right-of-use lease assets ⁽⁴⁾	<u>\$ 227.7</u>
Prepaid lease assets, net of lease allowances and incentives	<u>27.8</u>
	<u>\$ 255.5</u>

(1) As of December 31, 2020, the weighted average lease term was approximately 13 years.

(2) As of December 31, 2020, the weighted average discount rate was approximately 5 percent.

(3) Represents the present value of lease liabilities and is reported as a component of other liabilities on Alleghany's consolidated balance sheet.

(4) Reported as a component of other assets on Alleghany's consolidated balance sheet.

(c) Asbestos-Related Illness and Environmental Impairment Exposure

Loss and LAE include amounts for risks related to asbestos-related illness and environmental impairment. The following table presents such gross and net reserves as of December 31, 2020 and 2019:

	December 31, 2020		December 31, 2019	
	Gross	Net	Gross	Net
	(\$ in millions)			
TransRe	\$ 108.4	\$ 103.6	\$ 113.0	\$ 108.3
CapSpecialty	4.6	4.6	4.8	4.8
Total	\$ 113.0	\$ 108.2	\$ 117.8	\$ 113.1

The reserves carried for such claims, including the IBNR portion, are based upon known facts and current law at the respective balance sheet dates. However, significant uncertainty exists in determining the amount of ultimate liability for asbestos-related illness and environmental impairment losses. This uncertainty is due to, among other reasons, inconsistent and changing court resolutions and judicial interpretations with respect to underlying policy intent and coverage and uncertainties as to the allocation of responsibility for resultant damages, among other reasons. Further, possible future changes in statutes, laws, regulations, theories of liability and other factors could have a material effect on these liabilities and, accordingly, future earnings.

(d) The Pandemic

The Pandemic has significantly disrupted many aspects of society as well as financial markets, and has caused widespread global economic dislocation. Alleghany cannot reasonably estimate the duration or severity of the Pandemic, or the extent to which the related disruption may adversely impact its results of operations, financial position and cash flows, or those of its subsidiaries. Adverse impacts from the Pandemic in future periods may include realized and unrealized losses in Alleghany's investment portfolio and receivables, increased underwriting losses at its reinsurance and insurance segments, and impairment losses on certain subsidiary goodwill and intangible assets.

(e) Hotel Development Commitments

During 2020, Alleghany Capital invested \$0.8 million in certain hotel development projects. The projects are conducted through certain limited liability entities, which are variable interest entities, to which Alleghany is not the primary beneficiary. As of December 31, 2020, Alleghany guaranteed up to \$5.3 million of debt of these entities to certain third party lenders, for which Alleghany receives a fee.

13. Segments of Business

(a) Overview

Alleghany's segments are reported in a manner consistent with the way management evaluates the businesses. As such, Alleghany classifies its businesses into three reportable segments – reinsurance, insurance and Alleghany Capital.

Reinsurance and insurance underwriting activities are evaluated separately from investment and other activities. Segment accounting policies are described in Note 1.

The reinsurance segment consists of property and casualty reinsurance operations conducted by TransRe's reinsurance operating subsidiaries and is further reported through two major product lines – property and casualty & other. TransRe provides property and casualty reinsurance to insurers and other reinsurers through brokers and on a direct basis to ceding companies. TransRe writes a modest amount of property and casualty insurance business, which is included in the reinsurance segment. A significant portion of the premiums earned by TransRe's operations are generated by offices located in Canada, Europe, Asia, Australia, Africa and those serving Latin America and the Caribbean. Although the majority of the premiums earned by these offices typically relate to the regions where they are located, a significant portion may be derived from other regions of the world, including the U.S. In addition, although a significant portion of the assets and liabilities of these foreign offices generally relate to the countries where the ceding companies and reinsurers are located, most investments are located in the country of domicile of these offices.

The insurance segment consists of property and casualty insurance operations conducted in the U.S. by AIHL through its insurance operating subsidiaries RSUI and CapSpecialty. RSUI also writes a modest amount of assumed reinsurance business, which is included in the insurance segment.

The Alleghany Capital segment consists of industrial operations, non-industrial operations and corporate operations at the Alleghany Capital level, which include certain hotel development projects. Industrial operations are conducted through PCT, Kentucky Trailer, W&W/AFCO Steel and, starting April 1, 2020, Wilbert. Non-industrial operations are conducted through IPS, Jazwares and Concord.

Corporate activities are not classified as a segment. The primary components of corporate activities are Alleghany Properties, activities at the Alleghany parent company and, prior to its December 31, 2020 sale, SORC. Corporate activities also include the elimination of minor activity between segments.

In addition, corporate activities include interest expense associated with the senior notes issued by Alleghany, whereas interest expense associated with senior notes issued by TransRe is included in "Total Segments" and interest expense associated with other debt is included in Alleghany Capital. Information related to the senior notes and other debt can be found in Note 8.

(b) Results

The following tables present segment results for Alleghany's three reportable segments and for corporate activities for 2020, 2019 and 2018:

Year Ended December 31, 2020	Reinsurance Segment			Insurance Segment			Subtotal	Alleghany Capital ⁽²⁾	Total Segments	Corporate Activities	Consolidated
	Property	Casualty & other ⁽¹⁾	Total	RSUI	Cap Specialty	Total					
	(\$ in millions)										
Gross premiums written	\$ 1,761.7	\$ 3,475.6	\$ 5,237.3	\$ 1,714.4	\$ 411.3	\$ 2,125.7	\$ 7,363.0	\$ —	\$ 7,363.0	\$ (33.6)	\$ 7,329.4
Net premiums written	1,439.6	3,405.4	4,845.0	1,124.8	374.6	1,499.4	6,344.4	—	6,344.4	—	6,344.4
Net premiums earned	1,379.7	3,265.0	4,644.7	1,008.8	346.7	1,355.5	6,000.2	—	6,000.2	—	6,000.2
Net loss and LAE	1,130.6	2,256.3	3,386.9	738.4	213.8	952.2	4,339.1	—	4,339.1	—	4,339.1
Commissions, brokerage and other underwriting expenses ⁽³⁾	424.2	1,000.8	1,425.0	226.1	138.7	364.8	1,789.8	—	1,789.8	—	1,789.8
Underwriting (loss) profit ⁽⁴⁾	\$ (175.1)	\$ 7.9	\$ (167.2)	\$ 44.3	\$ (5.8)	\$ 38.5	(128.7)	—	(128.7)	—	(128.7)
Net investment income							465.7	1.9	467.6	23.3	490.9
Change in the fair value of equity securities							(55.8)	—	(55.8)	(54.7)	(110.5)
Net realized capital gains							37.1	35.5	72.6	(69.5)	3.1
Change in allowance for credit losses on available for sale securities							(8.0)	—	(8.0)	—	(8.0)
Noninsurance revenue							34.9	2,477.5	2,512.4	8.7	2,521.1
Other operating expenses							103.6	2,310.0	2,413.6	15.7	2,429.3
Corporate administration							(0.3)	—	(0.3)	48.9	48.6
Amortization of intangible assets							0.8	43.4	44.2	—	44.2
Interest expense							27.0	15.5	42.5	45.7	88.2
Earnings (losses) before income taxes							\$ 214.1	\$ 146.0	\$ 360.1	\$ (202.5)	\$ 157.6

Year Ended December 31, 2019	Reinsurance Segment			Insurance Segment			Subtotal	Alleghany Capital ⁽²⁾	Total Segments	Corporate Activities	Consolidated
	Property	Casualty & other ⁽¹⁾	Total	RSUI	Cap Specialty	Total					
	(\$ in millions)										
Gross premiums written	\$ 1,700.3	\$ 3,245.4	\$ 4,945.7	\$ 1,366.6	\$ 371.8	\$ 1,738.4	\$ 6,684.1	\$ —	\$ 6,684.1	\$ (27.7)	\$ 6,656.4
Net premiums written	1,328.8	3,166.2	4,495.0	912.0	344.7	1,256.7	5,751.7	—	5,751.7	—	5,751.7
Net premiums earned	1,280.1	3,046.9	4,327.0	824.2	326.9	1,151.1	5,478.1	—	5,478.1	—	5,478.1
Net loss and LAE	942.6	2,018.5	2,961.1	503.7	221.6	725.3	3,686.4	—	3,686.4	—	3,686.4
Commissions, brokerage and other underwriting expenses ⁽³⁾	424.2	982.6	1,406.8	219.2	132.7	351.9	1,758.7	—	1,758.7	—	1,758.7
Underwriting (loss) profit ⁽⁴⁾	\$ (86.7)	\$ 45.8	\$ (40.9)	\$ 101.3	\$ (27.4)	\$ 73.9	33.0	—	33.0	—	33.0
Net investment income							533.2	6.3	539.5	10.7	550.2
Change in the fair value of equity securities							705.8	—	705.8	3.9	709.7
Net realized capital gains							6.0	1.0	7.0	(13.5)	(6.5)
Change in allowance for credit losses on available for sale securities							(19.7)	—	(19.7)	—	(19.7)
Noninsurance revenue							27.0	2,289.3	2,316.3	12.5	2,328.8
Other operating expenses							103.1	2,132.9	2,236.0	27.3	2,263.3
Corporate administration							4.1	—	4.1	70.7	74.8
Amortization of intangible assets							1.3	32.5	33.8	—	33.8
Interest expense							27.1	20.1	47.2	52.8	100.0
Earnings (losses) before income taxes							\$ 1,149.7	\$ 111.1	\$ 1,260.8	\$ (137.2)	\$ 1,123.6

Year Ended December 31, 2018	Reinsurance Segment			Insurance Segment			Subtotal	Alleghany Capital (2)	Total Segments	Corporate Activities	Consolidated
	Property	Casualty & other (1)	Total	RSUI	Cap Specialty	Total					
	(\$ in millions)										
Gross premiums written	\$ 1,532.7	\$ 2,918.3	\$ 4,451.0	\$ 1,142.0	\$ 328.8	\$ 1,470.8	\$ 5,921.8	\$ —	\$ 5,921.8	\$ (26.2)	\$ 5,895.6
Net premiums written	1,169.4	2,799.7	3,969.1	773.3	306.0	1,079.3	5,048.4	—	5,048.4	—	5,048.4
Net premiums earned	1,177.3	2,761.7	3,939.0	747.3	289.9	1,037.2	4,976.2	—	4,976.2	—	4,976.2
Net loss and LAE	1,067.8	1,801.5	2,869.3	491.2	159.9	651.1	3,520.4	—	3,520.4	—	3,520.4
Commissions, brokerage and other underwriting expenses(3)	384.9	897.4	1,282.3	211.9	123.1	335.0	1,617.3	—	1,617.3	—	1,617.3
Underwriting (loss) profit(4)	\$ (275.4)	\$ 62.8	\$ (212.6)	\$ 44.2	\$ 6.9	\$ 51.1	(161.5)	—	(161.5)	—	(161.5)
Net investment income							480.9	4.8	485.7	14.8	500.5
Change in the fair value of equity securities							(184.2)	—	(184.2)	(44.8)	(229.0)
Net realized capital gains							31.6	0.9	32.5	(35.7)	(3.2)
Change in allowance for credit losses on available for sale securities							(1.3)	—	(1.3)	—	(1.3)
Noninsurance revenue							22.0	1,574.6	1,596.6	47.4	1,644.0
Other operating expenses							59.8	1,485.6	1,545.4	33.9	1,579.3
Corporate administration							(1.7)	—	(1.7)	17.6	15.9
Amortization of intangible assets							(0.4)	24.4	24.0	—	24.0
Interest expense							27.1	10.5	37.6	53.1	90.7
Earnings (losses) before income taxes							\$ 102.7	\$ 59.8	\$ 162.5	\$ (122.9)	\$ 39.6

- (1) Primarily consists of the following reinsurance lines of business: directors' and officers' liability; errors and omissions liability; general liability; medical malpractice; ocean marine and aviation; auto liability; accident & health; mortgage reinsurance; surety; and credit.
- (2) Excludes certain minor, legacy investments that were previously reflected in Alleghany Capital in 2018 and prior periods, to align with management's view of reportable segments.
- (3) Includes amortization associated with deferred acquisition costs of \$1,457.0 million, \$1,392.8 million and \$1,271.4 million for the years ended December 31, 2020, 2019 and 2018, respectively.
- (4) Underwriting profit represents net premiums earned less net loss and LAE and commissions, brokerage and other underwriting expenses, all as determined in accordance with GAAP, and does not include net investment income, change in the fair value of equity securities, net realized capital gains, change in allowance for credit losses on available for sale securities, noninsurance revenue, other operating expenses, corporate administration, amortization of intangible assets or interest expense. Underwriting profit does not replace earnings before income taxes determined in accordance with GAAP as a measure of profitability. Rather, Alleghany believes that underwriting profit enhances the understanding of its reinsurance and insurance segments' operating results by highlighting net earnings attributable to their underwriting performance. Earnings before income taxes (a GAAP measure) may show a profit despite an underlying underwriting loss. Where underwriting losses persist over extended periods, a reinsurance or an insurance company's ability to continue as an ongoing concern may be at risk. Therefore, Alleghany views underwriting profit as an important measure in the overall evaluation of performance.

(c) Foreign operations

Information associated with Alleghany's foreign operations in its reinsurance segment (representing the vast majority of Alleghany's foreign operations), is as follows:

- Foreign gross premiums written in 2020, 2019 and 2018 were approximately \$1.7 billion, \$1.7 billion and \$1.6 billion, respectively.
- Foreign net premiums earned in 2020, 2019 and 2018 were approximately \$1.6 billion, \$1.5 billion and \$1.4 billion, respectively. The foreign country in which Alleghany generates the largest amount of premium revenues is the U.K. Net premiums earned by operations in the U.K. in 2020, 2019 and 2018 were \$699.6 million, \$615.6 million and \$583.8 million, respectively.
- Certain of Alleghany Capital's subsidiaries earned revenues outside of the U.S., however, substantially all of Alleghany Capital's consolidated revenues were earned in the U.S.

(d) Identifiable assets and equity

The following table presents identifiable assets, the portion of identifiable assets related to cash and invested assets, and equity attributable to Alleghany, for Alleghany's reportable segments and for corporate activities as of December 31, 2020:

	Identifiable Assets	Invested Assets and Cash (\$ in millions)	Equity Attributable to Alleghany
Reinsurance segment	\$ 17,971.0	\$ 14,552.9	\$ 5,377.0
Insurance segment	7,493.3	5,501.8	2,610.4
Subtotal	25,464.3	20,054.7	7,987.4
Alleghany Capital	2,592.8	107.0	1,109.1
Total segments	28,057.1	20,161.7	9,096.5
Corporate activities	869.9	816.7	(340.8)
Consolidated	\$ 28,927.0	\$ 20,978.4	\$ 8,755.7

(e) Alleghany Capital Noninsurance Revenue

For Alleghany Capital's industrial and non-industrial operations, noninsurance revenue consists of the sale of manufactured goods and services. The following table presents noninsurance revenue for the Alleghany Capital segment for 2020, 2019 and 2018:

	2020	Year Ended December 31, 2019	2018
		(\$ in millions)	
Industrial ⁽¹⁾	\$ 1,220.9	\$ 1,105.6	\$ 917.1
Non-Industrial ⁽²⁾	1,256.5	1,183.7	657.5
Corporate & other	0.1	—	—
Alleghany Capital	\$ 2,477.5	\$ 2,289.3	\$ 1,574.6

(1) For 2020, 2019 and 2018, the vast majority of industrial noninsurance revenues were recognized as goods and services transferred to customers over time.

(2) For 2020, 2019 and 2018, approximately 59 percent, 70 percent and 63 percent, respectively, of non-industrial noninsurance revenues were recognized as services transferred to customers over time, with the remainder recognized as goods transferred at a point in time.

(f) Concentration

Significant portions of the reinsurance segment's gross premiums written are produced by a limited number of brokers. Gross premiums written produced by the reinsurance segment's three largest brokers were approximately 27 percent, 19 percent and 14 percent in 2020, 26 percent, 17 percent and 16 percent in 2019 and 26 percent, 18 percent, and 15 percent in 2018.

A large whole account quota share treaty accounted for approximately 13 percent in 2020, 14 percent in 2019 and 17 percent in 2018 of gross premiums written in the reinsurance segment.

14. Long-Term Compensation Plans

(a) Alleghany Parent Company-Level

As of December 31, 2020, Alleghany had long-term compensation plans for parent company-level employees and directors. Alleghany parent company-level long-term compensation awards to current employees do not include stock options but consist only of restricted stock awards, including restricted stock units and performance share awards of Common Stock. Alleghany parent company-level, long-term compensation awards to non-employee directors consist of annual grants of restricted shares and restricted stock units of Common Stock.

Amounts recognized as compensation expense in the consolidated statements of earnings and comprehensive income with respect to long-term compensation awards under plans for Alleghany parent company-level employees and non-employee directors were \$4.3 million, \$38.7 million and \$(12.0) million in 2020, 2019 and 2018, respectively. The negative expense for 2018 reflects a reversal of certain long-term incentive compensation expense accruals, driven primarily by the impacts of depreciation in the value of Alleghany's consolidated debt and equity securities portfolio, as well as significant catastrophe losses incurred at Alleghany's reinsurance and insurance subsidiaries in 2018. The amount of related income tax (expenses) benefit in the consolidated statements of earnings and comprehensive income with respect to these plans was \$0.9 million, \$8.1 million and \$(2.5) million in 2020, 2019 and 2018, respectively. In 2020, 2019 and 2018, \$5.0 million, \$2.4 million and \$4.3 million of

Common Stock at fair market value, respectively, and \$12.8 million, \$2.2 million and \$17.1 million of cash, respectively, was paid by Alleghany under these plans for Alleghany parent company-level employees and non-employee directors. As noted above, as of December 31, 2020 and 2019, all outstanding awards were accounted for under the fair-value-based method of accounting.

The following is a summary of the Alleghany parent company-level, long-term compensation plans.

Director Restricted Stock Plan

The annual grant to each non-employee director consists of either restricted shares or restricted stock units of Common Stock, at the director's election. Awards granted to non-employee directors were not material to Alleghany's results of operations, financial condition or cash flows for the three years ended December 31, 2020.

Alleghany Long-Term Incentive Plans

Awards under Alleghany's long-term compensation plans may include, but are not limited to, cash and/or shares of Common Stock, rights to receive cash and/or shares of Common Stock and options to purchase shares of Common Stock, including options intended to qualify as incentive stock options under the Internal Revenue Code, and options not intended to so qualify.

The following types of awards were outstanding as of December 31, 2020:

- Performance Share Awards — Depending on the grant date, participants are entitled, at the end of a multi-year award period, to a maximum amount equal to the value of either one and one-half shares or two shares of Common Stock for each performance share issued to them based on market value on the payment date. Payouts are made provided defined levels of performance are achieved. Expenses are recorded based on changes in the fair value of the awards. The fair value is calculated based primarily on the value of Common Stock as of the balance sheet date, the degree to which performance targets have been achieved and the time elapsed with respect to each award period.
- Restricted Share Awards — From time to time, Alleghany has awarded to management employees restricted shares or restricted stock units of Common Stock. These awards entitle the participants to a specified maximum amount equal to the value of one share of Common Stock for each restricted share or restricted stock unit issued to them based on the market value on the grant date, subject to certain conditions. The expense is recognized ratably over the performance period, which can be extended under certain circumstances.

(b) TransRe Plans

TransRe has a Book Value Unit Plan and a Mid-Term Incentive Plan (collectively, the "TransRe Plans") for the purpose of providing incentives to key employees of TransRe. Under the TransRe Plans, book value units ("BVUs") and mid-term incentive plan ("MTIP") awards are issued. BVUs and MTIP awards may only be settled in cash. The fair value of each BVU is calculated as the stockholder's equity of TransRe, adjusted for certain capital transactions, divided by the adjusted number of BVUs outstanding. BVUs have vesting dates of up to approximately the fourth anniversary of the date of grant. The fair value of MTIP awards is calculated based on underwriting results compared to specified targets or based on overall results as determined by TransRe's board of directors. MTIP awards have vesting dates of approximately the second or third anniversary of the date of grant. The BVUs and MTIP awards contain certain restrictions, related to, among other things, forfeiture in the event of termination of employment and transferability. In 2020, 2019 and 2018, TransRe recorded \$44.3 million, \$48.7 million and \$35.6 million, respectively, in compensation expense and a deferred tax benefit of \$9.3 million, \$10.2 million and \$7.5 million, respectively, related to the TransRe Plans.

(c) RSUI Plans

RSUI has a Restricted Stock Unit Plan (the "RSU Plan") and a Book Value Unit Plan (the "BVU Plan") (collectively the "RSUI Plans") for the purpose of providing equity-like incentives to key employees of RSUI.

Under the RSU Plan, restricted stock units ("RSUs") were issued. Additional RSUs, defined as the "Deferred Equity Pool," were issued in 2018. RSUs may only be settled in cash. The fair value of each unit is calculated as the stockholder's equity of RSUI, adjusted for certain capital transactions and accumulated compensation expense recognized under the RSU Plan, divided by the sum of RSUI common stock outstanding and the original units available under the RSU Plan. The units vest on the fourth anniversary of the date of grant and contain certain restrictions, related to, among other things, forfeiture in the event of termination of employment and transferability. Effective July 1, 2019, no additional units were awarded from the RSU Plan.

The BVU Plan was initiated on July 1, 2019. Under the BVU Plan, BVUs are issued. The BVUs may only be settled in cash. The fair value of each BVU is calculated as the stockholder's equity of RSUI, adjusted for certain capital transactions, divided by the BVUs outstanding. The units vest on the fourth anniversary of the date of grant and contain certain restrictions, related to, among other things, forfeiture in the event of termination of employment and transferability.

In 2020, 2019 and 2018, RSUI recorded \$29.0 million, \$37.4 million and \$11.7 million, respectively, in compensation expense related to the RSUI Plans. During the same periods, a deferred tax benefit of \$6.1 million, \$7.8 million and \$2.4 million, respectively, related to the compensation expense were recorded.

(d) Other Subsidiary Plans

Long-term incentive plans exist at certain other subsidiaries for the purpose of providing equity-like incentives to key employees. The awards under such plans were not material to Alleghany's results of operations, financial condition or cash flows for the three years ended December 31, 2020.

15. Employee Retirement Benefit Plans

(a) Overview

Alleghany and certain of its subsidiaries provide a variety of retirement benefits. Alleghany provides supplemental retirement benefits through deferred compensation programs and profit sharing plans for certain of its Alleghany parent company-level officers and employees. In addition, Alleghany's subsidiaries sponsor both qualified, defined contribution retirement plans for substantially all employees, including executives, and non-qualified plans only for executives, some of which provide for voluntary salary reduction contributions by employees and matching contributions by each respective subsidiary, subject to specified limitations.

Alleghany has endorsement split-dollar life insurance policies for its Alleghany parent company-level officers that are effective during employment, as well as retirement. Premiums are paid by Alleghany and death benefits are split between Alleghany and the beneficiaries of the officers. Death benefits for current employees that inure to the beneficiaries are generally equal to four times the annual salary at the time of an officer's death. After retirement, death benefits that inure to the beneficiaries are generally equal to the annual salary of the officer as of the date of retirement.

In addition, Alleghany and TransRe have defined benefit pensions plans for certain of their employees, as further described below. These employee retirement plans are not material to Alleghany's results of operations, financial condition or cash flows for the three years ended December 31, 2020. Alleghany recognizes on its balance sheet an asset for a plan's overfunded status or a liability for a plan's underfunded status, with changes in funded status reported in other comprehensive income, net of tax.

In December 2019, the Alleghany Board of Directors authorized the termination of the executive retirement plans at both the Alleghany Parent company-level and at TransRe effective December 24, 2019. Due in large part to this authorization for termination of these plans, other comprehensive losses attributable to retirement plans in the amount of \$15.4 million was incurred in 2019. In December 2020, approximately \$57 million of total payments were made to all executive retirement participants and \$19.2 million of accumulated other comprehensive losses attributable, consisting of \$15.4 million of other comprehensive losses incurred in 2019 and \$3.8 million of other comprehensive losses incurred from earlier periods, was reversed out of accumulated comprehensive losses and reclassified to the consolidated statement of operations as expenses. Of the \$19.2 million of reclassified expenses in 2020, \$13.6 million related to Alleghany Parent executive retirement plan participants was recorded as corporate administration expense, and \$5.6 million related to TransRe executive retirement plan participants was recorded as other operating expense. All of the forgoing amounts are presented before income taxes.

(b) Alleghany Parent Company-Level

Alleghany had an unfunded, noncontributory defined benefit pension plan for Alleghany parent company-level executives, which was frozen as of December 31, 2013 and terminated in December 2019. Alleghany has a funded, noncontributory defined benefit pension plan for Alleghany parent company-level employees, which was also frozen as of December 31, 2013. As of December 31, 2020 and 2019, the projected benefit obligations of defined benefit pension plans were \$3.9 million and \$44.1 million, respectively, and the related fair value of plan assets was \$3.8 million and \$3.5 million, respectively.

(c) TransRe

TransRe had an unfunded, noncontributory defined benefit plan for executives and has a funded noncontributory defined benefit plan for certain of its employees in the U.S. Benefits under TransRe's defined benefit plans were frozen as of December 31, 2009 and the unfunded, noncontributory defined benefit plan for executives was terminated in December 2019. As of December 31, 2020 and 2019, the projected benefit obligations of defined benefit pension plans were \$72.2 million and \$79.0 million, respectively, and the related fair value of plan assets was \$63.7 million and \$56.9 million, respectively.

16. Quarterly Results of Operations (unaudited)

Selected quarterly financial data for 2020 and 2019 are presented below:

	Quarter Ended			
	March 31	June 30	September 30	December 31
(\$ in millions, except per share data)				
2020				
Revenues	\$ 1,482.9	\$ 2,227.4	\$ 2,522.9	\$ 2,663.5
Net earnings (losses) ⁽¹⁾	(361.2)	177.4	126.5	159.1
Basic earnings (losses) per share of common stock ⁽¹⁾⁽²⁾	(25.19)	12.39	8.86	11.28
2019				
Revenues	\$ 2,321.2	\$ 2,258.7	\$ 2,159.9	\$ 2,300.8
Net earnings (losses) ⁽¹⁾	440.2	295.5	90.4	31.7
Basic earnings (losses) per share of common stock ⁽¹⁾⁽²⁾	30.40	20.46	6.27	2.20

(1) Attributable to Alleghany stockholders.

(2) Earnings per share by quarter may not equal the amount for the full year due to the timing of repurchases of Common Stock, as well as rounding.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Alleghany Corporation:

Opinion on Internal Control over Financial Reporting

We have audited Alleghany Corporation and subsidiaries' internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Alleghany Corporation and subsidiaries (the "Company") maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Alleghany Corporation and subsidiaries as of December 31, 2020 and 2019, and the related consolidated statements of earnings and comprehensive income, changes in stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2020 and the related notes and the financial statement schedules listed in the Index at Item 15(a)(2) and our report dated February 23, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP

New York, New York

February 23, 2021

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.*Disclosure Controls and Procedures*

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer, or “CEO,” and our chief financial officer, or “CFO,” of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Form 10-K pursuant to Rule 13a-15(e) or 15d-15(e) promulgated under the Exchange Act. Based on that evaluation, our management, including our CEO and CFO, concluded that our disclosure controls and procedures were effective as of that date to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized, and timely reported as specified in the SEC’s rules and forms and (ii) accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow for timely decisions regarding required disclosure. Our disclosure controls and procedures were designed to provide such assurance; however, we note that the design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and we cannot assure you that any design will succeed in achieving its stated goals under all potential future conditions, regardless of how remote.

Management’s Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control system was designed to provide reasonable assurance to our management and Board of Directors regarding the preparation and fair presentation of financial statements for external purposes.

We carried out an evaluation, under the supervision and with the participation of our management, including our CEO and CFO, of the effectiveness of our internal control over financial reporting based on the framework in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on that evaluation, our management, including our CEO and CFO, concluded that, as of December 31, 2020, our internal control over financial reporting was effective. Our independent registered public accounting firm that audited the consolidated financial statements included in this Form 10-K, Ernst & Young LLP, has issued an attestation report on the effectiveness of our internal control over financial reporting which appears in Part II, Item 8, “Financial Statements and Supplementary Data” on page 183 of this Form 10-K. We note that all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Changes in Internal Control Over Financial Reporting

No changes occurred during the quarter ended December 31, 2020 in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item 10 is included under the captions “Corporate Governance — Assessing Board Composition,” “Corporate Governance — Committees of the Board,” “Corporate Governance — Codes of Ethics,” “Information About Stock Ownership — Delinquent Section 16(a) Reports,” “Proposal 1: Election of Directors,” and “Named Executive Officers” in our Proxy Statement related to our Annual Meeting of Stockholders to be held on April 23, 2021, or our “2021 Proxy Statement,” which information is incorporated herein by reference.

Item 11. Executive Compensation.

The information required by this Item 11 is included under the captions “Corporate Governance — Compensation of Directors,” “Compensation Committee Report,” “Compensation Discussion and Analysis,” and “Executive Compensation” in our 2021 Proxy Statement, which information is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item 12 is included under the captions “Principal Stockholders” and “Securities Ownership of Directors and Executive Officers” in our 2021 Proxy Statement, which information is incorporated herein by reference.

EQUITY COMPENSATION PLAN INFORMATION

The following table summarizes information, as of December 31, 2020, related to Alleghany’s equity compensation plans under which its equity securities are authorized for issuance:

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity compensation plans approved by security holders ⁽¹⁾	152,872 ⁽²⁾	\$ 377.93 ⁽³⁾	338,453 ⁽⁴⁾
Equity compensation plans not approved by security holders	—	—	—
Total	152,872	377.93	338,453

- (1) These equity compensation plans consist of: (a) the 2005 Directors’ Stock Plan (the “2005 Directors’ Plan”); (b) the 2010 Directors’ Stock Plan (the “2010 Directors’ Plan”); (c) the 2015 Directors’ Stock Plan (the “2015 Directors’ Plan”); (d) the 2012 Long-Term Incentive Plan (the “2012 LTIP”) and (e) the 2017 Long-Term Incentive Plan (the “2017 LTIP”). The 2005 Directors’ Plan expired on December 31, 2009, the 2010 Directors’ Plan expired on April 23, 2015, and the 2012 LTIP expired on April 28, 2017.
- (2) This amount includes: (a) 1,700 outstanding stock options issued to directors under the 2010 Directors’ Plan; (b) 93 outstanding stock options issued to directors under the 2015 Directors’ Plan; (c) 1,332 outstanding restricted stock units issued to directors under the 2005 Directors’ Plan; (d) 4,709 outstanding restricted stock units issued to directors under the 2010 Directors’ Plan; (e) 8,259 outstanding restricted stock units issued under the 2015 Directors’ Plan; (f) 28,161 outstanding performance shares awarded under the 2012 LTIP assuming payouts at maximum; (g) 75,399 outstanding performance shares awarded under the 2017 LTIP assuming payouts at maximum; (h) 2,605 outstanding restricted stock units issued under the 2012 LTIP; and (i) 30,614 outstanding restricted stock units issued under the 2017 LTIP. Restricted stock units granted to directors pursuant to the 2005 Directors’ Plan, the 2010 Directors’ Plan and the 2015 Directors’ Plan (the “Director Restricted Stock Units”) are paid out in common stock, with one share of common stock being paid for each Director Restricted Stock Unit. The performance shares awarded in years 2017, 2018 and 2019 under the 2012 LTIP and 2017 LTIP are paid, at the end of a multi-year award period, in a maximum amount equal to one and one-half shares of common stock for each performance share, depending upon the level of performance achieved. The performance shares awarded in 2020 under the 2017 LTIP are paid, at the end of a multi-year award period, in a maximum amount equal to two shares of common stock for each performance share, depending upon the level of performance achieved. Payments in respect of performance shares are made based upon the market value of common stock on the payment date. Recipients of performance shares are permitted to elect to receive payment for performance shares in cash and/or common stock, subject to certain limitations. Since there is no exercise price for restricted stock units or for performance shares, they are not taken into account in calculating the weighted-average exercise price in column (b).
- (3) The weighted-average exercise price is based upon the weighted-average exercise price of the outstanding director stock options issued under the 2010 Directors’ Plan and the 2015 Directors’ Plan.
- (4) This amount does not include: (a) 188,227 shares of common stock that remained available for issuance under the 2007 LTIP upon its expiration on April 27, 2012; (b) 27,485 shares of common stock that remained available for issuance under the 2005 Directors’ Plan upon its expiration on December 31, 2009; (c) 30,444 shares of common stock that remained available for issuance under the 2010 Directors’ Plan upon its expiration on April 23, 2015; and (d) 421,807 shares of common stock that remained available for issuance under the 2012 LTIP upon its expiration on April 28, 2017, since no further awards of common stock may be made under such plans.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item 13 is included under the captions “Corporate Governance — Director Independence,” and “Corporate Governance — Transactions with Related Persons” in our 2021 Proxy Statement, which information is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information required by this Item 14 is included under the caption “Proposal 3: Ratification of Selection of Independent Registered Public Accounting Firm for Fiscal 2021” in our 2021 Proxy Statement, which information is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) 1. Financial Statements.

Our consolidated financial statements, together with the reports thereon of Ernst & Young LLP, our independent registered public accounting firm for the years ended December 31, 2020, 2019 and 2018, are set forth on pages 127 through 183 of this Form 10-K.

2. Financial Statement Schedules.

The Index to Financial Statements Schedules and the schedules related to our consolidated financial statements for the years ended December 31, 2020, 2019 and 2018, are set forth on pages 191 through 200 of this Form 10-K.

3. Exhibits.

Exhibit Number	Description
3.01	<u>Restated Certificate of Incorporation of Alleghany, as amended by Amendment accepted and received for filing by the Secretary of State of the State of Delaware on June 23, 1988, filed as Exhibit 3.1 to Alleghany's Registration Statement on Form S-3 (No. 333-134996) filed on June 14, 2006, is incorporated herein by reference.</u>
3.02	<u>Amended and Restated By-laws of Alleghany, as amended November 3, 2020, filed as Exhibit 3.1 to Alleghany's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, is incorporated herein by reference.</u>
3.03	<u>Certificate of Elimination of 5.75% Mandatory Convertible Preferred Stock of Alleghany filed as Exhibit 3.1 to Alleghany's Current Report on Form 8-K filed on July 22, 2009, is incorporated herein by reference.</u>
4.01†	<u>Specimen certificates representing shares of common stock, par value \$1.00 per share, of Alleghany, filed as Exhibit 4.1 to Alleghany's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, is incorporated herein by reference.</u>
4.02	<u>Indenture, dated as of September 20, 2010, by and between Alleghany and The Bank of New York Mellon, as Trustee, filed as Exhibit 4.1 to Alleghany's Current Report on Form 8-K filed on September 20, 2010, is incorporated herein by reference.</u>
4.03	<u>First Supplemental Indenture, dated as of September 20, 2010, by and between Alleghany and The Bank of New York Mellon, as Trustee, including the form of the Senior Notes attached as Exhibit A thereto, filed as Exhibit 4.2 to Alleghany's Current Report on Form 8-K filed on September 20, 2010, is incorporated herein by reference.</u>
4.04	<u>Second Supplemental Indenture, dated as of June 26, 2012, by and between Alleghany and The Bank of New York Mellon, as Trustee, including the form of the Senior Notes attached as Exhibit A thereto, filed as Exhibit 4.1 to Alleghany's Current Report on Form 8-K filed on June 26, 2012, is incorporated herein by reference.</u>
4.05	<u>Fourth Supplemental Indenture, dated as of May 18, 2020, by and between Alleghany Corporation and The Bank of New York Mellon, as Trustee, including the form of the Senior Notes attached as Exhibit A thereto, filed as Exhibit 4.1 to Alleghany's Current Report on Form 8-K filed on May 18, 2020, is incorporated herein by reference.</u>
4.06	<u>Description of Alleghany's Securities, filed as Exhibit 4.06 to Alleghany's Annual Report on Form 10-K filed on February 19, 2020, is incorporated herein by reference.</u>
*10.01	<u>Alleghany 2015 Management Incentive Plan, filed as Exhibit 10.2 to Alleghany's Current Report on Form 8-K filed on April 24, 2015, is incorporated herein by reference.</u>
*10.02	<u>Alleghany Officers and Highly Compensated Employees Deferred Compensation Plan, as amended and restated as of December 31, 2014, filed as Exhibit 10.03 to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2015, is incorporated herein by reference.</u>
*10.03(a)	<u>Alleghany 2012 Long-Term Incentive Plan, adopted and effective April 27, 2012, filed as an appendix to Alleghany's Definitive Proxy Statement dated March 16, 2012, is incorporated herein by reference.</u>
*10.03(b)	<u>Form of Performance Share Award Agreement under the 2012 Long-Term Incentive Plan, filed as Exhibit 10.06(b) to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2012, is incorporated herein by reference.</u>

- *10.03(c) [Form of Restricted Stock Unit Award Agreement under the 2012 Long-Term Incentive Plan, filed as Exhibit 10.06\(c\) to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2012, is incorporated herein by reference.](#)
- *10.04(a) [Alleghany 2017 Long-Term Incentive Plan, adopted and effective April 28, 2017, filed as an appendix to Alleghany's Definitive Proxy Statement dated March 17, 2017, is incorporated herein by reference.](#)
- *10.04(b) [Form of Performance Share Award Agreement under the 2017 Long-Term Incentive Plan, filed as Exhibit 10.05\(b\) to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2017, is incorporated by reference.](#)
- *10.04(c) [Form of Restricted Stock Unit Award Agreement under the 2017 Long-Term Incentive Plan, filed as Exhibit 10.05\(c\) to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2017, is incorporated by reference.](#)
- *10.05 [Alleghany Retirement Plan, as amended, effective December 31, 2015, filed as Exhibit 10.06 to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2015, is incorporated herein by reference.](#)
- *10.06 [Amendment to Alleghany Retirement Plan, filed as Exhibit 10.1 to Alleghany's Current Report on Form 8-K filed on December 23, 2019, is incorporated herein by reference.](#)
- *10.07 [Description of Alleghany Group Long Term Disability Plan effective July 1, 1995, filed as Exhibit 10.10 to Alleghany's Annual Report on Form 10-K for the year ended December 31, 1995, is incorporated herein by reference.](#)
- *10.08 [Alleghany Non-Employee Directors' Retirement Plan, as amended, effective December 19, 2006, filed as Exhibit 10.1 to Alleghany's Current Report on Form 8-K filed on December 22, 2006, is incorporated herein by reference.](#)
- *10.09(a) [Alleghany 2005 Directors' Stock Plan, as amended as of December 31, 2008, filed as Exhibit 10.12\(a\) to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2008, is incorporated herein by reference.](#)
- *10.09(b) [Form of Option Agreement under the Alleghany 2005 Directors' Stock Plan, as amended as of December 16, 2008, filed as Exhibit 10.12\(b\) to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2008, is incorporated herein by reference.](#)
- *10.09(c) [Amended and Restated Stock Unit Supplement to the Alleghany 2005 Directors' Stock Plan, as amended as of December 16, 2008, filed as Exhibit 10.12\(c\) to Alleghany's Annual Report on Form 10-K for the year ended December 31, 2008, is incorporated herein by reference.](#)
- *10.10 [Alleghany Amended and Restated 2010 Directors' Stock Plan, filed as Exhibit 10.1 to Alleghany's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013, is incorporated herein by reference.](#)
- *10.11 [Alleghany 2015 Directors' Stock Plan, filed as Exhibit 10.1 to Alleghany's Current Report on Form 8-K filed on April 24, 2015, is incorporated herein by reference.](#)
- *10.12 [CapSpecialty, Inc. 2019 Restricted Share Plan, filed as Exhibit 10.2 to Alleghany's Current Report on Form 8-K filed on October 22, 2019, is incorporated herein by reference.](#)
- *10.13(a) [Employment Agreement, dated October 7, 2002, between Alleghany and Weston M. Hicks, filed as Exhibit 10.1 to Alleghany's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002, is incorporated herein by reference.](#)
- *10.13(b) [Letter Agreement, dated April 15, 2008, between Alleghany and Weston M. Hicks, filed as Exhibit 10.1 to Alleghany's Current Report on Form 8-K filed on April 21, 2008, is incorporated herein by reference.](#)
- *10.14 [Letter Agreement, dated as of November 20, 2011, by and between Alleghany and Joseph P. Brandon, filed as Exhibit 10.2 to Alleghany's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, is incorporated herein by reference.](#)
- *10.15 [Employment Agreement, dated October 22, 2019, between Capitol Indemnity Corporation and John L. Sennott, Jr., filed as Exhibit 10.1 to Alleghany's Current Report on Form 8-K filed on October 22, 2019, is incorporated herein by reference.](#)
- 10.16(a) [Credit Agreement, dated as of July 31, 2017, among the Company, the lenders which are signatories thereto and U.S. Bank National Association, as administrative agent for the Lenders \(the "Credit Agreement"\), filed as Exhibit 10.1\(a\) to Alleghany's Current Report on Form 8-K filed on August 1, 2017, is incorporated herein by reference.](#)

- 10.16(b) [List of Contents of Exhibits and Schedules to the Credit Agreement, filed as Exhibit 10.1\(b\) to Alleghany's Current Report on Form 8-K filed on August 1, 2017, is incorporated herein by reference. Alleghany agrees to furnish supplementally a copy of any omitted exhibit or schedule to the Securities and Exchange Commission upon request.](#)
- 21 [List of subsidiaries of Alleghany.](#)
- 23.1 [Consent of Ernst & Young LLP, independent registered public accounting firm, to the incorporation by reference of its reports relating to the financial statements, the related schedules of Alleghany and subsidiaries and its attestation report.](#)
- 31.1 [Certification of the Chief Executive Officer of the Company pursuant to Rule 13a-14\(a\) or Rule 15\(d\)-14\(a\) of the Exchange Act.](#)
- 31.2 [Certification of the Chief Financial Officer of the Company pursuant to Rule 13a-14\(a\) or Rule 15\(d\)-14\(a\) of the Exchange Act.](#)
- 32.1 [Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. This exhibit shall not be deemed "filed" as a part of this Form 10-K.](#)
- 32.2 [Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. This exhibit shall not be deemed "filed" as a part of this Form 10-K.](#)
- 101.1 Interactive Data Files formatted in Inline XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets as of December 31, 2020 and 2019; (ii) Consolidated Statements of Earnings and Comprehensive Income for the years ended December 31, 2020, 2019 and 2018; (iii) Consolidated Statements of Changes in Stockholders' 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 Consolidated Financial Statements.
- 104.1 Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101).

* Management contract or a compensatory plan or arrangement.

† Pursuant to Item 601(b)(4)(iii) of Regulation S-K, certain instruments defining the rights of holders of long-term debt securities of Alleghany and its consolidated subsidiaries are not filed because the total amount of securities authorized under such instruments does not exceed 10 percent of the total assets of Alleghany and its subsidiaries on a consolidated basis. A copy of such instruments will be furnished to the Securities and Exchange Commission upon request.

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.

ALLEGHANY CORPORATION

(Registrant)

Date: February 23, 2021

By: /s/ WESTON M. HICKS
Weston M. Hicks
President and Chief Executive Officer

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.

Date: February 23, 2021

By: /s/ JERRY G. BORRELLI
Jerry G. Borrelli
Vice President (principal accounting officer)

Date: February 23, 2021

By: /s/ KAREN BRENNER
Karen Brenner
Director

Date: February 23, 2021

By: /s/ IAN H. CHIPPENDALE
Ian H. Chippendale
Director

Date: February 23, 2021

By: /s/ JOHN G. FOOS
John G. Foos
Director

Date: February 23, 2021

By: /s/ WESTON M. HICKS
Weston M. Hicks
President, Chief Executive Officer and Director (principal executive officer)

Date: February 23, 2021

By: /s/ KERRY J. JACOBS
Kerry J. Jacobs
Senior Vice President (principal financial officer)

Date: February 23, 2021

By: /s/ JEFFERSON W. KIRBY
Jefferson W. Kirby
Chairman of the Board and Director

Date: February 23, 2021

By: /s/ PHILLIP M. MARTINEAU
Phillip M. Martineau
Director

Date: February 23, 2021

By: /s/ LAUREN M. TYLER
Lauren M. Tyler
Director

Date: February 23, 2021

By: /s/ RAYMOND L.M. WONG
Raymond L.M. Wong
Director

Alleghany Corporation and Subsidiaries
Index to Financial Statement Schedules

Description	Page
<u>Schedule I Summary of Investments — Other Than Investments in Related Parties</u>	192
<u>Schedule II Condensed Financial Information of Registrant</u>	193
<u>Schedule III Supplemental Insurance Information</u>	197
<u>Schedule IV Reinsurance</u>	198
<u>Schedule V Valuation and Qualifying Accounts</u>	199
<u>Schedule VI Supplemental Information Concerning Insurance Operations</u>	200

Schedule I – Summary of Investments – Other Than Investments in Related Parties

ALLEGHANY CORPORATION AND SUBSIDIARIES

December 31, 2020

Type of Investment	Cost	Fair Value (\$ in millions)	Amount at which shown in the Balance Sheet
Fixed maturities:			
Bonds:			
U.S. Government obligations	\$ 1,317.6	\$ 1,360.1	\$ 1,360.1
Municipal bonds	2,489.1	2,656.8	2,656.8
Foreign government obligations	846.6	879.5	879.5
U.S. corporate bonds	3,262.0	3,545.7	3,545.7
Foreign corporate bonds	1,268.3	1,323.1	1,323.1
Mortgage and asset-backed securities:			
RMBS	2,533.6	2,611.4	2,611.4
CMBS	852.6	890.3	890.3
Other asset-backed securities	2,328.7	2,351.6	2,351.6
Fixed maturities	14,898.5	15,618.5	15,618.5
Equity securities:			
Common stocks:			
Public utilities	—	—	—
Banks, trust and insurance companies	236.7	307.7	307.7
Industrial, miscellaneous and all other	1,810.2	2,406.9	2,406.9
Nonredeemable preferred stocks	5.1	4.3	4.3
Equity securities	2,052.0	2,718.9	2,718.9
Commercial mortgage loans	670.2	670.2	670.2
Other invested assets	465.2	465.2	465.2
Short-term investments	714.2	714.2	714.2
Total investments	\$ 18,800.1	\$ 20,187.0	\$ 20,187.0

Schedule II – Condensed Financial Information of Registrant**Condensed Balance Sheets**

ALLEGHANY CORPORATION

December 31, 2020 and 2019

	2020	2019
	(\$ in thousands)	
Assets		
Equity securities (cost: 2020 – \$587,418; 2019 – \$1,708)	\$ 571,314	\$ 4,042
Debt securities (amortized cost: 2020 – \$47,397; 2019 – \$179,747; allowance for credit losses: 2020 – \$57)	48,753	182,490
Short-term investments	76,259	125,412
Other invested assets	91,873	81,728
Cash	17,243	684
Property and equipment at cost, net of accumulated depreciation and amortization	3,707	4,201
Other assets	60,089	57,415
Net deferred tax assets	21,060	30,118
Current taxes receivable	17,649	—
Investment in subsidiaries	9,361,261	9,638,153
Total assets	<u>\$ 10,269,208</u>	<u>\$ 10,124,243</u>
Liabilities, Redeemable Noncontrolling Interests and Stockholders' Equity		
Senior notes	\$ 1,190,192	\$ 994,241
Other liabilities	89,487	144,382
Current taxes payable	—	4,133
Total liabilities	<u>1,279,679</u>	<u>1,142,756</u>
Redeemable noncontrolling interest	233,809	204,753
Stockholders' equity attributable to Alleghany stockholders	8,755,720	8,776,734
Total liabilities, redeemable noncontrolling interest and stockholders' equity	<u>\$ 10,269,208</u>	<u>\$ 10,124,243</u>

See accompanying Notes to Condensed Financial Statements

Condensed Statements of Earnings

ALLEGHANY CORPORATION

Year ended December 31,

	2020	2019	2018
	(\$ in thousands)		
Revenues			
Net investment income	\$ 24,448	\$ 10,790	\$ 16,548
Change in the fair value of equity securities	(54,647)	3,937	(44,780)
Net realized capital gains	6,522	(13,497)	(265)
Change in allowance for credit losses on available for sale securities	(57)	—	—
Noninsurance revenue	771	85	64
Total revenues	(22,963)	1,315	(28,433)
Costs and Expenses			
Interest expense	46,811	52,908	53,121
Corporate administration	48,849	70,692	17,565
Total costs and expenses	95,660	123,600	70,686
(Losses) before equity in earnings of consolidated subsidiaries and income taxes	(118,623)	(122,285)	(99,119)
Equity in earnings of consolidated subsidiaries	276,240	1,245,921	138,711
Earnings before income taxes	157,617	1,123,636	39,592
Income taxes	30,734	233,435	(15,062)
Net earnings	126,883	890,201	54,654
Net earnings attributable to noncontrolling interest	25,129	32,400	15,115
Net earnings attributable to Alleghany stockholders	\$ 101,754	\$ 857,801	\$ 39,539

See accompanying Notes to Condensed Financial Statements

Condensed Statements of Cash Flows

ALLEGHANY CORPORATION

Year ended December 31,

	2020	2019	2018
	(\$ in thousands)		
Cash flows from operating activities			
Net earnings	\$ 126,883	\$ 890,201	\$ 54,654
Adjustments to reconcile net earnings to net cash provided by (used in) operating activities:			
Equity in undistributed net (earnings) losses of consolidated subsidiaries	(226,590)	(989,486)	(130,050)
Depreciation and amortization	4,064	2,249	1,750
Change in the fair value of equity securities	54,647	(3,937)	44,780
Net realized capital (gains) losses	(6,522)	13,497	265
Change in allowance for credit losses on available for sale securities	57	—	—
Increase (decrease) in other liabilities and taxes payable	(56,298)	24,593	(84,803)
Net adjustments	(230,642)	(953,084)	(168,058)
Net cash (used in) provided by operating activities	(103,759)	(62,883)	(113,404)
Cash flows from investing activities			
Purchases of equity securities	(763,986)	—	(31,125)
Purchases of debt securities	(497,058)	(194,706)	(3,418)
Sales of debt securities	606,110	1,186	29,189
Maturities and redemptions of debt securities	32,383	13,344	53
Sales of equity securities	142,065	64,016	360,579
Net (purchase) sale of short-term investments	49,154	162,161	(195,983)
Purchases of property and equipment	(9)	(124)	—
Other, net	(8,731)	(33,245)	(4,926)
Net cash (used in) provided by investing activities	(440,072)	12,632	154,369
Cash flows from financing activities			
Repayment of senior notes	(307,095)	—	—
Treasury stock acquisitions	(194,762)	(144,422)	(491,633)
Proceeds from issuance of senior notes	499,335	—	—
Debt issue costs paid	(4,550)	—	—
Cash dividends paid	(215,013)	—	(153,967)
Capital contributions to consolidated subsidiaries	(87,323)	(15,267)	(175,653)
Distributions from consolidated subsidiaries	865,000	215,000	751,471
Other, net	4,798	(4,707)	7,868
Net cash provided by (used in) financing activities	560,390	50,604	(61,914)
Net increase (decrease) in cash	16,559	353	(20,949)
Cash at beginning of period	684	331	21,280
Cash at end of period	\$ 17,243	\$ 684	\$ 331
Supplemental disclosures of cash flow information			
Cash paid during the period for:			
Interest paid	\$ 49,036	\$ 51,375	\$ 51,375
Income taxes paid (refunds received)	17,255	(4,189)	(8,338)

See accompanying Notes to Condensed Financial Statements

Notes to Condensed Financial Statements

ALLEGHANY CORPORATION

1. Investment in Consolidated Subsidiaries. Reference is made to Note 1 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.
2. Adoption of New Accounting Guidance. Reference is made to Note 1 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.
3. Income Taxes. Reference is made to Note 9 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.
4. Commitments and Contingencies. Reference is made to Note 12 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.
5. Stockholders’ Equity. Reference is made to Note 10 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K with respect to stockholders’ equity and surplus available for dividend payments to Alleghany from its subsidiaries.
6. Senior Notes. Reference is made to Note 8 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.
7. Credit Agreement. Reference is made to Note 7 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.
8. Long-Term Compensation Plans. Reference is made to Note 14 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.
9. Employee Retirement Benefit Plans. Reference is made to Note 15 to the Consolidated Financial Statements set forth in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K.

Schedule III – Supplemental Insurance Information
ALLEGHANY CORPORATION AND SUBSIDIARIES

Year	Segment	At December 31,				For the Year Ended December 31,					
		Deferred Policy Acquisition Costs	Future Policy Benefits, Losses, Claims and Loss Expenses	Unearned Premiums	Other Policy Claims and Benefits Payable	Premium Revenue	Net Investment Income	Benefits, Claims, Losses and Settlement Expenses	Amortization of Deferred Policy Acquisition Costs	Other Operating Expenses	Premiums Written
		(\$ in millions)									
2020	Reinsurance	\$ 460.7	\$9,814.0	\$1,873.7	\$ —	\$4,644.7	\$ 330.2	\$ 3,386.9	\$ 1,225.3	\$ 199.7	\$ 4,845.0
2019	Reinsurance	\$ 406.7	\$9,323.8	\$1,668.1	\$ —	\$4,327.0	\$ 371.9	\$ 2,961.1	\$ 1,178.7	\$ 228.1	\$ 4,495.0
2018	Reinsurance	\$ 361.2	\$9,442.2	\$1,523.9	\$ —	\$3,939.0	\$ 327.0	\$ 2,869.3	\$ 1,075.9	\$ 206.4	\$ 3,969.1
2020	Insurance	\$ 134.4	\$3,226.9	\$1,124.2	\$ —	\$1,355.5	\$ 135.5	\$ 952.2	\$ 231.7	\$ 133.1	\$ 1,499.4
2019	Insurance	\$ 115.9	\$2,670.3	\$ 910.1	\$ —	\$1,151.1	\$ 161.3	\$ 725.3	\$ 214.1	\$ 137.8	\$ 1,256.7
2018	Insurance	\$ 103.3	\$2,874.9	\$ 754.2	\$ —	\$1,037.2	\$ 153.9	\$ 651.1	\$ 195.5	\$ 139.4	\$ 1,079.3

Schedule IV – Reinsurance
ALLEGHANY CORPORATION AND SUBSIDIARIES
 Year ended December 31,

Year	Line of Business	Gross Amount	Ceded to Other Companies	Assumed from Other Companies	Net Amount	Percentage of Amount Assumed to Net
(\$ in millions)						
2020	Property and casualty	\$ 2,370.4	\$ 953.1	\$ 4,582.9	\$ 6,000.2	76.4%
2019	Property and casualty	\$ 2,114.1	\$ 904.8	\$ 4,268.8	\$ 5,478.1	77.9%
2018	Property and casualty	\$ 1,935.3	\$ 840.5	\$ 3,881.4	\$ 4,976.2	78.0%

Schedule V – Valuation and Qualifying Accounts
ALLEGHANY CORPORATION AND SUBSIDIARIES

Year	Description	Balance at January 1,	Charged to Costs and Expenses	Charged to Other Accounts	Deductions	Balance at December 31,
(\$ in millions)						
2020	Allowance for credit losses for reinsurance recoverable	\$ —	\$ 4.6	\$ 3.3	\$ —	\$ 7.9
	Allowance for credit losses for premiums receivable	\$ 0.7	\$ 1.1	\$ 0.4	\$ —	\$ 2.2
2019	Allowance for uncollectible reinsurance recoverable	\$ —	\$ —	\$ —	\$ —	\$ —
	Allowance for uncollectible premiums receivable	\$ 0.4	\$ 0.9	\$ —	\$ 0.6	\$ 0.7
2018	Allowance for uncollectible reinsurance recoverable	\$ —	\$ —	\$ —	\$ —	\$ —
	Allowance for uncollectible premiums receivable	\$ 0.5	\$ 0.7	\$ —	\$ 0.8	\$ 0.4

SCHEDULE VI – Supplemental Information Concerning Insurance Operations
ALLEGHANY CORPORATION AND SUBSIDIARIES

Year	Line of Business	At December 31,				For the Year Ended December 31,						
		Deferred Policy Acquisition Costs	Reserves for Unpaid Claims and Claim Adjustment Expenses	Discount if Any Deducted, in Reserves for Unpaid Claims and Claim Adjustment Expenses	Unearned Premiums	Earned Premiums	Net Investment Income	Claims and Claim Adjustment Expenses Incurred Related to		Amortization of Deferred Policy Acquisition Costs	Paid Claims and Claim Adjustment Expenses	Premiums Written
								Current Year	Prior Year			
							(\$ in millions)					
2020	Property and Casualty Insurance	\$ 595.1	\$ 12,970.6	\$ —	\$ 2,984.1	\$ 6,000.2	\$ 465.7	\$ 4,559.9	\$ (220.8)	\$ 1,457.0	\$ 3,503.5	\$ 6,344.4
2019	Property and Casualty Insurance	\$ 522.6	\$ 11,928.4	\$ —	\$ 2,566.2	\$ 5,478.1	\$ 533.2	\$ 3,871.1	\$ (184.7)	\$ 1,392.8	\$ 3,724.5	\$ 5,751.7
2018	Property and Casualty Insurance	\$ 464.5	\$ 12,250.3	\$ —	\$ 2,267.1	\$ 4,976.2	\$ 480.9	\$ 3,849.4	\$ (329.0)	\$ 1,271.4	\$ 3,257.9	\$ 5,048.4

SUBSIDIARIES OF ALLEGHANY CORPORATION

Alleghany Insurance Holdings LLC (Delaware)
CapSpecialty, Inc. (Wisconsin)
 Capitol Facilities Corporation (Wisconsin)
 Capitol Indemnity Corporation (Wisconsin)
 Capitol Specialty Insurance Corporation (Wisconsin)
 Platte River Insurance Company (Nebraska)
 CATA Services Company (Wisconsin)
AIHL Re LLC (Vermont)
RSUI Group, Inc. (Delaware)
 Resurgens Specialty Underwriting, Inc. (Georgia)
 RSUI Indemnity Company (New Hampshire)
 Covington Specialty Insurance Company (New Hampshire)
 Landmark American Insurance Company (New Hampshire)
 RSA Surplus Lines Insurance Services, Inc. (Delaware)
Roundwood Asset Management LLC (Delaware)
Transatlantic Holdings, Inc. (Delaware)
 Transatlantic Reinsurance Company (New York)
 Fair American Insurance and Reinsurance Company (New York)
 Fair American Select Insurance Company (Delaware)
 TransRe London Limited (United Kingdom)
 TransRe London Services Limited (United Kingdom)
 TransRe Zurich Ltd. (Zurich, Switzerland)
 TRC Escritório de Representação no Brasil Ltda. (Brazil)
 TransRe S.A. (Panama)
 Transatlantic Re (Argentina) S.A. (Argentina)
 TRC International Services S.A. (Panama)
 Calpe Insurance Company Limited (Gibraltar)
 Orien Risk Analysts, Inc. (New York)
TReIMCo Limited (United Kingdom)
TransRe Europe Services Ltd. (Zurich, Switzerland)
Professional Risk Management Services, Inc. (Delaware)

Certain other subsidiaries have been omitted because, in the aggregate, they would not constitute a significant subsidiary.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (Form S-8: No. 333-127309, No. 333-166259, No. 333-186782, No. 333-203612, No. 333-218844) pertaining to the Alleghany Corporation Amended and Restated Directors' Stock Option Plan, Alleghany Corporation 2000 Directors' Stock Option Plan, Alleghany Corporation 2005 Directors' Stock Plan, Alleghany Corporation Subsidiary Directors' Stock Option Plan, Alleghany Corporation 2010 Directors' Stock Plan, Alleghany Corporation 2012 Long-Term Incentive Plan, Alleghany Corporation 2015 Directors' Stock Plan, and Alleghany Corporation 2017 Long-Term Incentive Plan of Alleghany Corporation and subsidiaries of our reports dated February 23, 2021, with respect to the consolidated financial statements and schedules of Alleghany Corporation and subsidiaries, and the effectiveness of internal control over financial reporting of Alleghany Corporation and subsidiaries, included in this Annual Report (Form 10-K) for the year ended December 31, 2020.

/s/ Ernst & Young LLP

New York, New York
February 23, 2021

Exhibit 31.1
CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Weston M. Hicks, certify that:

1. I have reviewed this annual report on Form 10-K of Alleghany Corporation (the “Registrant”);
 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
 4. The Registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the Registrant and we have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the Registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the Registrant’s internal control over financial reporting that occurred during the Registrant’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Registrant’s internal control over financial reporting; and
-

5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's board of directors (or persons performing the equivalent functions):
- a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: February 23, 2021

/s/ Weston M. Hicks

Weston M. Hicks

President and Chief Executive Officer

Exhibit 31.2
CERTIFICATION OF CHIEF FINANCIAL OFFICER
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Kerry J. Jacobs, certify that:

1. I have reviewed this annual report on Form 10-K of Alleghany Corporation (the “Registrant”);
 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
 4. The Registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the Registrant and we have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the Registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the Registrant’s internal control over financial reporting that occurred during the Registrant’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Registrant’s internal control over financial reporting; and
-

5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's board of directors (or persons performing the equivalent functions):
- a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: February 23, 2021

/s/ Kerry J. Jacobs

Kerry J. Jacobs
Senior Vice President
officer

and chief financial

Exhibit 32.1

ALLEGHANY CORPORATION

CERTIFICATION

In connection with the annual report of Alleghany Corporation (the “Company”) on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission (the “Report”), I, Weston M. Hicks, President and Chief Executive Officer of the Company, hereby certify as of the date hereof, solely for purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that, to my knowledge:

- (1) the Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934, and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

This Certification, which accompanies the Report, has not been, and shall not be deemed, “filed” with the Securities and Exchange Commission.

Date: February 23, 2021

By: /s/ Weston M. Hicks

Weston M. Hicks

President and Chief Executive Officer

Exhibit 32.2

ALLEGHANY CORPORATION

CERTIFICATION

In connection with the annual report of Alleghany Corporation (the “Company”) on Form 10-K for the period ended December 31, 2020, as filed with the Securities and Exchange Commission (the “Report”), I, Kerry J. Jacobs, Jr., Senior Vice President and Chief Financial Officer of the Company, hereby certify as of the date hereof, solely for purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that, to my knowledge:

- (1) the Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934, and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

This Certification, which accompanies the Report, has not been, and shall not be deemed, “filed” with the Securities and Exchange Commission.

Date: February 23, 2021

By: /s/ Kerry J. Jacobs

Kerry J. Jacobs
Senior Vice President
and chief financial officer