
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

(Mark One)



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

For the fiscal year ended December 31, 2019

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 1-15202

W. R. BERKLEY CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

22-1867895

(I.R.S. Employer Identification Number)

475 Steamboat Road

Greenwich, CT

06830

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code: (203) 629-3000

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$.20 per share	WRB	New York Stock Exchange
5.625% Subordinated Debentures due 2053	WRB PRB	New York Stock Exchange
5.90% Subordinated Debentures due 2056	WRB PRC	New York Stock Exchange
5.75% Subordinated Debentures due 2056	WRB PRD	New York Stock Exchange
5.70% Subordinated Debentures due 2058	WRB PRE	New York Stock Exchange
5.10% Subordinated Debentures due 2059	WRB PRF	New York Stock Exchange

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

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates (computed by reference to the price at which the common stock was last sold) as of the last business day of the registrant’s most recently completed second fiscal quarter was \$9,617,776,032.

Number of shares of common stock, \$.20 par value, outstanding as of February 18, 2020: 183,421,709

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company’s definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, are incorporated herein by reference in Part III.

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SAFE HARBOR STATEMENT
UNDER THE PRIVATE SECURITIES
LITIGATION REFORM ACT OF 1995

This is a “Safe Harbor” Statement under the Private Securities Litigation Reform Act of 1995. This document may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Some of the forward-looking statements can be identified by the use of forward-looking words such as “believes,” “expects,” “potential,” “continued,” “may,” “will,” “should,” “seeks,” “approximately,” “predicts,” “intends,” “plans,” “estimates,” “anticipates” or the negative version of those words or other comparable words. Any forward-looking statements contained in this report including statements related to our outlook for the industry and for our performance for the year 2020 and beyond, are based upon our historical performance and on current plans, estimates and expectations. The inclusion of this forward-looking information should not be regarded as a representation by us that the future plans, estimates or expectations contemplated by us will be achieved. They are subject to various risks and uncertainties, including but not limited to:

- the cyclical nature of the property casualty industry;
- the impact of significant competition, including new alternative entrants to the industry;
- the long-tail and potentially volatile nature of the insurance and reinsurance business;
- product demand and pricing;
- claims development and the process of estimating reserves;
- investment risks, including those of our portfolio of fixed maturity securities and investments in equity securities, including investments in financial institutions, municipal bonds, mortgage-backed securities, loans receivable, investment funds, including real estate, merger arbitrage, energy related and private equity investments;
- the effects of emerging claim and coverage issues;
- the uncertain nature of damage theories and loss amounts, including claims for cyber security related risks;
- natural and man-made catastrophic losses, including as a result of terrorist activities;
- the impact of climate change, which may increase the frequency and severity of catastrophe events;
- general economic and market activities, including inflation, interest rates and volatility in the credit and capital markets;
- the impact of conditions in the financial markets and the global economy, and the potential effect of legislative, regulatory, accounting or other initiatives taken in response to it, on our results and financial condition;
- foreign currency and political risks (including those associated with the United Kingdom's withdrawal from the European Union, or "Brexit") relating to our international operations;
- our ability to attract and retain key personnel and qualified employees;
- continued availability of capital and financing;
- the success of our new ventures or acquisitions and the availability of other opportunities;
- the availability of reinsurance;
- our retention under the Terrorism Risk Insurance Program Reauthorization Act of 2015 ("TRIPRA");
- the ability or willingness of our reinsurers to pay reinsurance recoverables owed to us;
- other legislative and regulatory developments, including those related to business practices in the insurance industry;
- credit risk relating to our policyholders, independent agents and brokers;
- changes in the ratings assigned to us or our insurance company subsidiaries by rating agencies;
- the availability of dividends from our insurance company subsidiaries;
- potential difficulties with technology and/or cyber security issues;
- the effectiveness of our controls to ensure compliance with guidelines, policies and legal and regulatory standards; and

- other risks detailed in this Form 10-K and from time to time in our other filings with the Securities and Exchange Commission (“SEC”).

We describe these risks and uncertainties in greater detail in Item 1A, Risk Factors. These risks and uncertainties could cause our actual results for the year 2020 and beyond to differ materially from those expressed in any forward-looking statement we make. Any projections of growth in our revenues would not necessarily result in commensurate levels of earnings. Our future financial performance is dependent upon factors discussed elsewhere in this Form 10-K and our other SEC filings. Forward-looking statements speak only as of the date on which they are made.

PART I

ITEM 1. BUSINESS

W. R. Berkley Corporation is an insurance holding company that is among the largest commercial lines writers in the United States and operates worldwide in two segments of the property casualty insurance business:

- **Insurance** - predominantly commercial insurance business, including excess and surplus lines, admitted lines and specialty personal lines throughout the United States, as well as insurance business in the United Kingdom, Continental Europe, South America, Canada, Mexico, Scandinavia, Asia and Australia.
- **Reinsurance & Monoline Excess** - reinsurance business on a facultative and treaty basis, primarily in the United States, the United Kingdom, Continental Europe, Australia, the Asia-Pacific region and South Africa, as well as operations that solely retain risk on an excess basis.

Our two reporting segments are each composed of individual operating units that serve a market defined by geography, products, services or industry served. Each of our operating units is positioned close to its customer base and participates in a niche market requiring specialized knowledge. This strategy of decentralized operations allows each of our units to identify and respond quickly and effectively to changing market conditions and specific customer needs, while capitalizing on the benefits of centralized capital, investment and reinsurance management, and corporate actuarial, financial, enterprise risk management and legal staff support.

Our business approach is focused on meeting the needs of our customers, maintaining a high quality balance sheet, and allocating capital to our best opportunities. New businesses are started when opportunities are identified and when the right talent and expertise are found to lead a business. Of our 52 operating units, 45 have been organized and developed internally and seven have been added through acquisition.

Net premiums written, as reported based on United States generally accepted accounting principles ("GAAP"), for each of our operating segments for each of the past five years were as follows:

(In thousands)	Year Ended December 31,				
	2019	2018	2017	2016	2015
Net premiums written:					
Insurance	\$ 6,086,009	\$ 5,791,905	\$ 5,555,515	\$ 5,597,147	\$ 5,414,261
Reinsurance & Monoline Excess	777,490	641,322	704,993	826,766	775,254
Total	<u>\$ 6,863,499</u>	<u>\$ 6,433,227</u>	<u>\$ 6,260,508</u>	<u>\$ 6,423,913</u>	<u>\$ 6,189,515</u>
Percentage of net premiums written:					
Insurance	88.7%	90.0%	88.7%	87.1%	87.5%
Reinsurance & Monoline Excess	11.3	10.0	11.3	12.9	12.5
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Thirty of our insurance company subsidiaries are rated by A.M. Best Company, Inc. ("A.M. Best") and have financial strength ratings of A+ (Superior) (the second highest rating out of 15 possible ratings). A.M. Best's ratings are based upon factors of concern to policyholders, insurance agents and brokers and are not directed toward the protection of investors. A.M. Best states: "The Financial Strength Rating opinion addresses the relative ability of an insurer to meet its ongoing insurance obligations. The ratings are not assigned to specific insurance policies or contracts and do not address any other risk." A.M. Best reviews its ratings on a periodic basis, and its ratings of the Company's subsidiaries are therefore subject to change.

Our twenty-four insurance company subsidiaries rated by Standard & Poor's ("S&P") have financial strength ratings of A+ (the seventh highest rating out of twenty-seven possible ratings).

Our Moody's financial strength ratings are A1 for Berkley Insurance Company, Berkley Regional Insurance Company and Admiral Insurance Company (the sixth highest rating out of twenty-one possible ratings).

Our twenty-five insurance company subsidiaries rated by Fitch Ratings ("Fitch") have insurer financial strength ratings of A+ (the seventh highest rating out of twenty-seven possible ratings).

The following sections describe our reporting segments and their operating units in greater detail. These operating units underwrite on behalf of one or more affiliated insurance companies within the group. The operating units are identified by us for descriptive purposes only and are not legal entities, but for marketing purposes may sometimes be referred to individually as "a Berkley company" or collectively as "Berkley companies." Unless otherwise indicated, all references in this Form 10-K to "Berkley," "we," "us," "our," the "Company" or similar terms refer to W. R. Berkley Corporation together with its subsidiaries and operating units. W. R. Berkley Corporation is a Delaware corporation formed in 1970.

Insurance

Our U.S.-based operating units predominantly underwrite commercial insurance business primarily throughout the United States, although many units offer coverage globally, focusing on the following general areas:

Excess & Surplus Lines: A number of our operating units are dedicated to the U.S. excess and surplus lines market. They serve a diverse group of customers that often have complex risk or unique exposures that typically fall outside the underwriting guidelines of the standard insurance market. Lines of business underwritten by our excess and surplus lines operating units include premises operations, commercial automobile, property, products liability, general liability and professional liability lines. Products are generally distributed through wholesale agents and brokers.

Industry Specialty: Certain other operating units focus on providing specialty coverages to customers within a particular industry that are best served by underwriters and claims professionals with specialized knowledge of that industry. They offer multiple lines of business with policies tailored to address these unique exposures, often with the flexibility of providing coverages on either an admitted or a non-admitted basis in the U.S., as well as internationally. Each operating unit delivers its products through one or more distribution channels, including retail and wholesale agents, brokers, and managing general agents (MGAs), depending on the customer and the particular risks insured.

Product Specialty: Other operating units specialize in providing specific lines of insurance coverage, such as workers' compensation or professional liability, to a wide range of customers. They offer insurance products, analytical tools and risk management services such as loss control and claims management that enable clients to manage their risk appropriately. Business is typically written on an admitted basis, although some units may offer non-admitted products in the U.S. and offer products internationally. Independent agents and brokers are the primary means of distribution.

Regional: Certain operating units offer standard insurance products and services focused on meeting the specific needs of a geographically differentiated customer base. Key clients of these units are small-to-midsized businesses. These regionally focused operating units provide a broad array of commercial insurance products to customers primarily in 45 states and the District of Columbia and have developed expertise in niches that reflect local economies. They are organized geographically in order to provide them with the flexibility to adapt quickly to local market conditions and customer needs.

In addition, through our non-U.S. insurance operating units, we write business in more than 60 countries worldwide, with branches or offices in 29 locations outside the United States, including the United Kingdom, Continental Europe, South America, Canada, Mexico, Scandinavia, Asia and Australia. In each of our operating territories, we have built decentralized structures that allow products and services to be tailored to each regional customer base. Our businesses are managed by teams of professionals with expertise in local markets and knowledge of regional environments.

In addition to providing insurance products, certain operating units also provide a wide variety of fee-based services, including claims, administrative and consulting services.

Operating units comprising the Insurance segment are as follows:

Acadia Insurance is a Northeast regional property casualty underwriter offering a broad portfolio of products exclusively through local independent agents in Connecticut, Maine, Massachusetts, New Hampshire, New York and Vermont. In addition to its general offerings, Acadia has specialized expertise in insuring regional industries such as construction, lumber, fishing and transportation.

Admiral Insurance provides excess and surplus lines coverage for commercial risks that generally consist of hard-to-place, specialized risks that involve moderate to high degrees of hazard. In both general liability and professional lines, Admiral has a broad line of products to meet the needs of existing as well as emerging opportunities. The distribution of products is limited solely to wholesale brokers.

Berkley Accident and Health underwrites accident and health insurance and reinsurance products in four primary areas: medical stop loss, managed care, special risk and group captive. It has a diversified product and service portfolio serving a range of clients from small employers, health care organizations, and membership groups to Fortune 500 companies.

Berkley Agribusiness offers insurance for larger commercial risks across the United States involved in the supply, storage, handling, processing and distribution of commodities related to the agriculture and food industries.

Berkley Alliance Managers offers tailored insurance coverages and comprehensive risk management solutions designed to enhance profitability and reduce susceptibility to loss in four target markets - Design Professionals, Construction Professionals, Accounting Professionals and miscellaneous non-medical Service Professionals.

Berkley Aspire provides excess and surplus lines coverage on a national basis to small to medium-sized insureds with low to moderate insurance risk. Its product lines include general liability, liquor liability and some property and inland marine coverage. It serves a limited distribution channel consisting of select Berkley member company agents.

Berkley Canada underwrites specialty, casualty and surety lines of business on behalf of the Canadian branch of Berkley Insurance Company. It specializes in commercial casualty and professional liability, and offers a broad portfolio of risk products that include commercial general liability, umbrella, professional liability, directors and officers, commercial property and surety, in addition to niche products for specific industries such as technology, life sciences and travel.

Berkley Custom Insurance focuses on the excess casualty insurance market and offers umbrella and excess liability coverages to clients from the small/middle market to Fortune 1000 companies in target classes of business including construction, manufacturing, retail/wholesale trade, finance, real estate, public entities and oil & gas.

Berkley Cyber Risk Solutions focuses on insurance and risk management products that respond to the changing cyber security vulnerabilities of organizations around the world. It offers specialty commercial cyber insurance coverages on a worldwide basis to clients of all sizes.

Berkley Entertainment underwrites property casualty insurance products, both on an admitted and non-admitted basis, for clients in the entertainment industry and sports-related organizations.

Berkley Environmental underwrites casualty and specialty environmental products for environmental customers including contractors, consultants, property owners and facilities operators.

Berkley FinSecure serves the insurance needs of companies in the financial services industry. It offers a comprehensive range of property, casualty, professional liability, and specialty lines insurance products. Its Berkley crime division provides crime and fidelity related insurance products for commercial organizations, financial institutions and governmental entities.

Berkley Fire & Marine offers a broad range of preferred inland marine and related property risks and services to customers throughout the United States. Products are distributed through independent agents and brokers.

Berkley Global Product Recall Management provides worldwide insurance protection and technical assistance to help clients with the prevention, management and indemnification of product recall and contamination events.

Berkley Healthcare underwrites customized, comprehensive insurance solutions for the full spectrum of healthcare providers. Through Berkley Med, it offers a wide range of medical professional coverages. Through Berkley Healthcare Financial Lines, it offers a comprehensive suite of financial lines coverages.

Berkley Human Services provides property casualty insurance coverages to human services organizations, including nonprofit and for-profit organizations, public schools, sports and recreational organizations, and special events. Its product offerings include traditional primary coverages and risk purchasing groups, as well as alternative market solutions for clients who wish to retain a larger share of their risks.

Berkley Industrial specializes in mono-line workers' compensation coverage for mining and mining related and high hazard industries in select states.

Berkley Insurance Asia underwrites specialty commercial insurance coverages to clients in North Asia and Southeast Asia through offices in Hong Kong, Singapore, Labuan and Shanghai.

Berkley Insurance Australia underwrites general insurance business in Australia, including professional indemnity insurance for companies of all sizes.

Berkley Latinoamérica is a leading provider of property, casualty, automobile, surety, group life and workers' compensation products and services in its operating territories of Argentina, Brazil, the Caribbean, Colombia, Mexico and Uruguay.

Berkley Life Sciences offers a comprehensive spectrum of property casualty products to the life sciences industry on a global basis, including both primary and excess liability coverages. It serves pharmaceutical and biotech companies, medical device companies, dietary supplement companies, medical and research related software developers, contract research and manufacturing organizations, research institutions and organizations, and other related businesses.

Berkley Luxury Group provides commercial package insurance programs for high-end cooperative, condominium, and quality rental apartment buildings and upscale restaurants in the New York, New Jersey, Chicago and Washington, D.C. metropolitan markets, as well as other select markets.

Berkley Mid-Atlantic Group provides commercial property casualty coverages to a wide variety of businesses in Delaware, the District of Columbia, Maryland, Ohio, Pennsylvania, and Virginia. Focusing on middle market accounts, it complements its standard writings with specialized products in areas such as construction.

Berkley Net Underwriters focuses on small and medium-sized commercial risks, using a web-based system to allow producers to quote, bind and service workers' compensation insurance products on behalf of Berkley member insurance companies. Berkley Net Underwriters also manages Berkley's assigned risk servicing carrier operations.

Berkley North Pacific provides local underwriting, claims and risk management services for businesses in the Northwest. It operates with a select group of agents in Idaho, Montana, Oregon, Utah and Washington to sell and service property and casualty policies for larger middle-market standard businesses and specialty lines, such as construction, restaurants and manufacturing.

Berkley Offshore Underwriting Managers is a specialist global underwriter of energy and marine risks. Its three divisions provide specialty insurance products in the energy upstream, energy liability and marine sectors.

Berkley Oil & Gas provides property casualty products and risk services to the United States energy sector. Its customer base includes risks of all sizes that work in the oil patch, including operators, drillers, geophysical contractors, well-servicing contractors, and manufacturers/distributors of oil field products, as well as those in the renewable energy sector.

Berkley One provides a customizable suite of personal lines insurance solutions including home, condo/co-op, auto, liability and collectibles. Berkley One targets high net worth individuals and families with sophisticated risk management needs.

Berkley Professional Liability specializes in professional liability insurance for publicly-traded and private entities on a worldwide basis. Its liability coverages include directors and officers, errors and omissions, fiduciary, employment practices, and sponsored insurance agents' errors and omissions. Berkley Transactional, a division of Berkley Professional Liability, underwrites a full suite of transactional insurance products, including representations and warranties insurance, tax opinion insurance and contingency liability insurance.

Berkley Program Specialists is a program management company offering both admitted and non-admitted insurance support on a nationwide basis for commercial casualty and property program administrators with specialized insurance expertise. Its book is built around blocks of homogeneous business, or programs, allowing for efficient processes, effective oversight of existing programs and sound implementation of new programs.

Berkley Public Entity specializes in providing excess coverage and services to individual governmental and scholastic entities and intergovernmental risk sharing groups. Products include general liability, automobile liability, law enforcement liability, public officials and educator's legal liability, employment practices liability, incidental medical, property and crime.

Berkley Risk provides at-risk and alternative risk insurance program management services for a broad range of groups and individuals including public entity pools, professional associations, captives and self-insured clients. As a third party administrator, it manages workers' compensation, liability and property claims nationwide.

Berkley Select specializes in underwriting professional liability insurance on a surplus lines basis for law firms and accounting firms through a limited number of brokers. It also offers executive and professional liability products, including directors and officers liability, errors and omissions, and employment practices liability, to small to middle market privately held and not for profit customers on both an admitted and surplus lines basis.

Berkley Southeast offers a wide array of commercial lines products in six southeastern states: Alabama, Georgia, Mississippi, North Carolina, South Carolina and Tennessee, specializing in small to mid-sized accounts.

Berkley Surety provides a full spectrum of surety bonds for construction, environmental and commercial surety accounts in the U.S. and Canada, through an independent agency and broker platform across 18 field locations.

Berkley Technology Underwriters provides a broad range of first and third-party insurance programs for technology exposures and technology industries on both a local and global basis.

Carolina Casualty is a national provider of primary commercial insurance products and services to the transportation industry. It underwrites on an admitted basis in all 50 states and the District of Columbia.

Continental Western Group is a Midwest regional property and casualty insurance operation based in Des Moines, Iowa, providing underwriting and risk management services to a broad array of regional businesses in thirteen Midwest states. In addition to its generalist portfolio, Continental Western offers specialty underwriting solutions for diversified agriculture, construction, light manufacturing, transportation, volunteer fire departments, rural utilities and public entities.

Gemini Transportation is a national provider of excess liability insurance for various domestic surface transportation businesses, including the railroad industry as well as the trucking, busing and other industries that use rubber-wheeled vehicles for over-the-road use. It includes Berkley Prime Transportation, which leverages analytics and technology to provide quality products and responsive service to the commercial transportation industry.

Intrepid Direct offers business coverages to franchise restaurants, auto service and repair garages, junk hauler franchisors and gym and fitness franchises on a direct basis.

Key Risk provides workers' compensation insurance to middle market accounts in several niches that appreciate expertise and exceptional service. The unit operates two business units; one focused on middle market accounts located primarily in the mid-Atlantic and southeastern United States and one focused on national temporary staffing and United States Longshoreman & Harbor Act (USL&H) specialty programs. Its products are distributed by a select group of independent retail agents and wholesale brokers located through the United States.

Nautilus Insurance Group insures excess and surplus lines risks for small to medium-sized commercial risks with low to moderate susceptibility to loss. It writes commercial excess and surplus lines business nationwide and admitted lines commercial business in a limited number of states. A substantial portion of Nautilus' business is written through its close, long-standing network of general agents, who are chosen on a highly selective basis.

Preferred Employers Insurance focuses exclusively on workers' compensation products and services for businesses in California. It serves over 18,000 customers covering a broad spectrum of industries throughout the state.

Union Standard offers preferred commercial property and casualty insurance products and services to a wide range of small to medium size commercial entities through independent agents in Arizona, Arkansas, New Mexico, Oklahoma and Texas.

Vela Insurance Services specializes in commercial casualty insurance on an excess and surplus lines basis. Its primary focus is on general liability insurance for construction, manufacturing and general casualty clients as well as products liability and miscellaneous professional liability coverages distributed through wholesale insurance brokers.

Verus Underwriting Managers offers general liability, professional liability and property coverages for small to mid-sized commercial risks in the excess and surplus lines insurance market through a select group of appointed wholesale brokers and agents.

W R B Europe is comprised of specialist operating units offering a focused range of insurance products to markets in Continental Europe and Nordic countries.

W / R / B Underwriting provides a broad range of leading insurance products to the Lloyd's marketplace, with a concentration in specialist classes of business including property, professional indemnity, crisis management, and asset protection.

The following table sets forth the percentage of gross premiums written by each Insurance operating unit:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
Acadia Insurance	5.9%	6.7%	7.0%	6.9%	6.9%
Admiral Insurance	5.9	5.8	5.8	5.7	5.0
Berkley Accident and Health	5.7	5.7	4.9	4.5	3.8
Berkley Agribusiness	1.1	1.2	1.2	1.1	0.9
Berkley Alliance Managers	3.0	2.6	2.0	1.5	0.7
Berkley Aspire	0.4	0.3	0.3	0.3	0.4
Berkley Canada	1.0	1.0	0.9	0.8	0.6
Berkley Custom Insurance	3.1	2.7	2.6	2.7	2.9
Berkley Cyber Risk Solutions	0.3	0.2	0.1	—	—
Berkley Entertainment	2.7	2.6	2.2	2.1	2.0
Berkley Environmental	4.9	5.1	4.7	4.2	3.8
Berkley FinSecure	0.9	0.9	1.0	0.9	1.0
Berkley Fire & Marine	0.7	0.6	0.5	0.4	0.3
Berkley Global Product Recall Management	0.5	0.5	0.3	0.2	—
Berkley Healthcare	1.6	1.2	1.1	1.0	1.0
Berkley Human Services	0.8	0.8	0.7	0.7	0.6
Berkley Industrial	0.9	0.9	0.8	0.7	0.8
Berkley Insurance Asia	0.6	0.4	0.2	—	—
Berkley Insurance Australia	1.2	1.2	1.0	1.1	0.8
Berkley Latinoamérica	3.6	4.2	4.9	4.2	4.8
Berkley Life Sciences	0.7	0.8	0.8	0.8	0.8
Berkley Luxury Group	1.3	1.4	1.4	1.3	1.3
Berkley Mid-Atlantic Group	1.2	1.2	1.1	1.2	1.8
Berkley Net Underwriters	3.0	5.0	6.8	8.2	4.1
Berkley North Pacific	0.8	1.2	1.5	1.6	1.7
Berkley Offshore Underwriting Managers	1.2	1.1	1.1	1.1	1.4
Berkley Oil & Gas	4.1	3.6	2.7	2.8	3.3
Berkley One	0.3	0.2	—	—	—
Berkley Professional Liability	2.9	1.9	1.6	1.6	1.8
Berkley Program Specialists	1.1	1.1	1.3	1.2	1.2
Berkley Public Entity	0.4	0.4	0.5	0.5	0.5
Berkley Risk	0.3	0.2	0.3	0.2	4.1
Berkley Select	2.8	3.2	3.5	4.0	4.1
Berkley Southeast	2.0	2.0	1.9	2.0	2.4
Berkley Surety	1.2	1.3	1.2	1.2	1.3
Berkley Technology Underwriters	0.7	0.7	0.7	0.6	0.5
Carolina Casualty	0.7	0.5	0.4	0.6	1.3
Continental Western Group	2.6	3.5	3.9	4.1	4.1
Gemini Transportation	2.9	2.3	2.1	1.9	1.1
Intrepid Direct	0.5	0.3	0.1	—	—
Key Risk	2.7	2.9	2.8	2.7	2.9
Nautilus Insurance Group	4.8	5.0	5.2	5.1	4.8
Preferred Employers Insurance	2.4	2.5	2.9	2.6	2.5
Union Standard	2.1	2.7	2.8	2.7	2.7
Vela Insurance Services	2.8	2.6	3.1	4.0	3.4
Verus Underwriting Managers	0.8	0.9	0.9	0.9	0.9
WRB Europe	1.4	1.9	1.8	1.8	1.9
W/R/B Underwriting	4.5	3.5	3.2	4.1	5.6
Other	3.0	1.5	2.2	2.2	2.5
Total	100.0%	100.0%	100.0%	100.0%	100.0%

The following table sets forth percentages of gross premiums written, by line, by our Insurance operations:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
Other liability	33.9%	32.4%	31.4%	31.4%	30.1%
Short-tail lines (1)	23.5	23.5	23.5	23.6	24.8
Workers' compensation	17.8	20.6	22.7	23.4	23.8
Professional liability	13.3	12.0	11.2	11.0	9.7
Commercial auto	11.5	11.5	11.2	10.6	11.6
Total	100.0%	100.0%	100.0%	100.0%	100.0%

(1) Short-tail lines include commercial multi-peril (non-liability), inland marine, accident and health, fidelity and surety, boiler and machinery and other lines.

Reinsurance & Monoline Excess

We provide other insurance companies and self-insureds with assistance in managing their net risk through reinsurance on either a portfolio basis, through treaty reinsurance, or on an individual basis, through facultative reinsurance.

Operating units comprising the Reinsurance & Monoline Excess segment are as follows:

Berkley Re America provides treaty and facultative reinsurance solutions on a variety of product lines through reinsurance brokers to companies whose primary operations are within the United States and Canada.

Berkley Re Asia Pacific provides property and casualty reinsurance to the Asia Pacific marketplace. With offices in Brisbane, Melbourne, Sydney, Beijing, Hong Kong, Labuan and Singapore, each branch focuses on excess of loss reinsurance, targeting both property and casualty treaty and facultative contracts, through multiple distribution channels.

Berkley Re Solutions is a direct casualty facultative reinsurance underwriter serving clients through a nationwide network of regional offices. Its facultative reinsurance products include automatic, semi-automatic and individual risk assumed reinsurance. It also provides its customers with turnkey products such as cyber, employment practices liability insurance ("EPLI"), and liquor liability insurance to help enhance their clients' product offerings, along with underwriting, claims, and actuarial consultation.

Berkley Re UK writes international property casualty treaty accounts. Its territorial scope includes reinsured clients domiciled in the United Kingdom, Europe, Africa, the Middle East and the Caribbean.

Lloyd's Syndicate 2791 Participation represents the Company's minority participation in a Lloyd's syndicate that writes a broad range of mainly short-tail classes of business.

Midwest Employers Casualty provides excess workers' compensation insurance products to individual employers, groups and workers' compensation insurance companies across the United States. Its workers' compensation excess of loss products include self-insured excess of loss coverages and large deductible policies. Through its relationship with Berkley Net Underwriters, Midwest Employers Casualty also offers multi-state coverage for group self-insureds. It has developed sophisticated, proprietary analytical tools and risk management services designed to help its insureds lower their total cost of risk.

The following table sets forth the percentages of gross premiums written by each Reinsurance & Monoline Excess operating unit:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
Berkley Re America	34.2%	31.7%	41.0%	53.1%	49.4%
Berkley Re Asia Pacific	12.0	11.2	9.8	8.3	12.6
Berkley Re Solutions	12.2	10.7	10.0	7.6	6.6
Berkley Re UK	15.3	16.8	12.3	9.0	8.3
Lloyd's Syndicate 2791 Participation	4.8	5.1	4.3	3.7	4.2
Midwest Employers Casualty	21.5	24.5	22.0	17.8	18.9
Other	—	—	0.6	0.5	—
Total	100.0%	100.0%	100.0%	100.0%	100.0%

The following table sets forth the percentages of gross premiums written, by line, by our Reinsurance & Monoline Excess operations:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
Casualty	55.7%	53.0%	52.2%	47.9%	52.6%
Property	22.8%	22.5%	25.8%	34.3%	28.5%
Monoline Excess	21.5%	24.5%	22.0%	17.8%	18.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Results by Segment

Summary financial information about our segments is presented on a GAAP basis in the following table:

(In thousands)	Year Ended December 31,				
	2019	2018	2017	2016	2015
<u>Insurance</u>					
Revenue	\$ 6,397,074	\$ 6,208,290	\$ 6,003,130	\$ 5,935,268	\$ 5,664,654
Income before income taxes	814,862	717,154	623,746	671,347	658,748
<u>Reinsurance & Monoline Excess</u>					
Revenue	877,551	848,966	922,478	990,065	957,125
Income before income taxes	189,188	201,001	117,131	226,069	212,697
<u>Other (1)</u>					
Revenue	627,571	634,395	759,156	728,851	584,678
(Loss) income before income taxes	(151,130)	(106,061)	31,893	(978)	(139,415)
<u>Total</u>					
Revenue	\$ 7,902,196	\$ 7,691,651	\$ 7,684,764	\$ 7,654,184	\$ 7,206,457
Income before income taxes	\$ 852,920	\$ 812,094	\$ 772,770	\$ 896,438	\$ 732,030

(1) Represents corporate revenues and expenses, net investment gains and losses, and revenues and expenses from non-insurance businesses that are consolidated for financial reporting purposes.

The table below represents summary underwriting ratios on a GAAP basis for our segments. Loss ratio is losses and loss expenses incurred expressed as a percentage of net premiums earned. Expense ratio is underwriting expenses expressed as a percentage of net premiums earned. Underwriting expenses do not include expenses related to insurance services or unallocated corporate expenses. Combined ratio is the sum of the loss ratio and the expense ratio. The combined ratio represents a measure of underwriting profitability, excluding investment income. A number in excess of 100 indicates an underwriting loss; a number below 100 indicates an underwriting profit:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
Insurance					
Loss ratio	62.4%	62.5%	62.5%	61.9%	60.9%
Expense ratio	31.1	32.6	33.0	32.5	32.6
Combined ratio	93.5%	95.1%	95.5%	94.4%	93.5%
Reinsurance & Monoline Excess					
Loss ratio	61.5%	61.0%	70.0%	55.7%	57.7%
Expense ratio	35.0	35.8	35.7	37.8	37.1
Combined ratio	96.5%	96.8%	105.7%	93.5%	94.8%
Total					
Loss ratio	62.3%	62.4%	63.4%	61.1%	60.5%
Expense ratio	31.5	32.9	33.3	33.2	33.2
Combined ratio	93.8%	95.3%	96.7%	94.3%	93.7%

Investments

Investment results, before income taxes, were as follows:

(In thousands)	Year Ended December 31,				
	2019	2018	2017	2016	2015
Average investments, at cost (1)	\$ 19,145,567	\$ 18,392,297	\$ 17,530,590	\$ 16,730,964	\$ 15,970,931
Net investment income (1)	\$ 645,614	\$ 674,235	\$ 575,788	\$ 564,163	\$ 512,645
Percent earned on average investments (1)	3.4%	3.7%	3.3%	3.4%	3.2%
Net realized and unrealized gains on investments (2)	\$ 120,703	\$ 154,488	\$ 335,858	\$ 267,005	\$ 92,324
Change in unrealized investment gains (losses) (3)	\$ 261,970	\$ (302,737)	\$ (69,425)	\$ 371,715	\$ (192,186)

- (1) Includes investments, cash and cash equivalents, trading accounts receivable from brokers and clearing organizations, trading account securities sold but not yet purchased and unsettled purchases.
- (2) Represents realized gains on investments not classified as trading account securities prior to 2018. The inclusion of change in unrealized gains on equity securities within net income commenced January 1, 2018 due to our adoption of ASU 2016-01. The twelve months ended December 31, 2019 includes net realized gains on investment sales of \$36 million and increased by a change in unrealized gains on equity securities of \$85 million. The twelve months ended December 31, 2018 includes net realized gains on investment sales of \$480 million reduced by a change in unrealized gains on equity securities of \$320 million as well as \$6 million in other-than-temporary impairments.
- (3) Represents the change in unrealized investment gains (losses) for available for sale securities recognized in stockholders' equity. Effective January 1, 2018, the Company adopted accounting guidance that requires all equity investments with readily determinable fair values (subject to certain exceptions) to be measured at fair value with changes in the fair value recognized in net income. As a result of this guidance, the Company recorded a cumulative effect adjustment of \$291 million that increased retained earnings and decreased accumulated other comprehensive income ("AOCI"), resulting in no net impact to total stockholders' equity.

For comparison, the following are the coupon returns for the Barclays U.S. Aggregate Bond Index and the dividend returns for the S&P 500® Index:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
Barclays U.S. Aggregate Bond Index	3.2%	3.0%	3.0%	3.0%	3.0%
S&P 500® Index	2.3	2.0	2.4	2.4	2.1

The percentages of the fixed maturity portfolio categorized by contractual maturity, based on fair value, on the dates indicated, are set forth below. Actual maturities may differ from contractual maturities because certain issuers may have the right to call or prepay certain obligations.

	Year Ended December 31,				
	2019	2018	2017	2016	2015
1 year or less	6.5%	6.9%	5.0%	7.9%	5.8%
Over 1 year through 5 years	35.9	34.3	37.2	39.6	33.6
Over 5 years through 10 years	24.7	22.3	24.8	24.6	30.5
Over 10 years	21.4	24.7	23.3	18.8	20.3
Mortgage-backed securities	11.5	11.8	9.7	9.1	9.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%

At December 31, 2019, the fixed maturity portfolio had an effective duration of 2.8 years, including cash and cash equivalents.

Loss and Loss Expense Reserves

To recognize liabilities for unpaid losses, either known or unknown, insurers establish reserves, which is a balance sheet account representing estimates of future amounts needed to pay claims and related expenses with respect to insured events which have occurred. Estimates and assumptions relating to reserves for losses and loss expenses are based on complex and subjective judgments, often including the interplay of specific uncertainties with related accounting and actuarial measurements. Such estimates are also susceptible to change as significant periods of time may elapse between the occurrence of an insured loss, the report of the loss to the insurer, the ultimate determination of the cost of the loss and the insurer's payment of that loss.

In general, when a claim is reported, claims personnel establish a "case reserve" for the estimated amount of the ultimate payment based upon known information about the claim at that time. The estimate represents an informed judgment based on general reserving practices and reflects the experience and knowledge of the claims personnel regarding the nature and value of the specific type of claim. Reserves are also established on an aggregate basis to provide for losses incurred but not reported ("IBNR") to the insurer, potential inadequacy of case reserves and the estimated expenses of settling claims, including legal and other fees and general expenses of administering the claims adjustment process. Reserves are established based upon the then current legal interpretation of coverage provided.

In examining reserve adequacy, several factors are considered in estimating the ultimate economic value of losses. These factors include, among others, historical data, legal developments, changes in social attitudes and economic conditions, including the effects of inflation. The actuarial process relies on the basic assumption that past experience, adjusted judgmentally for the effects of current developments and anticipated trends, is an appropriate basis for predicting future outcomes. Reserve amounts are necessarily based on management's informed estimates and judgments using currently available data. As additional experience and other data become available and are reviewed, these estimates and judgments may be revised. This may result in reserve increases or decreases that would be reflected in our results in periods in which such estimates and assumptions are changed.

The risk and complexity of estimating loss reserves are greater when economic conditions are uncertain. It is especially difficult to estimate the impact of inflation on loss reserves given the current economic environment and related government actions. Whereas a slowing economy would generally lead to lower inflation or even deflation, increased government spending would generally lead to higher inflation. A change in our assumptions regarding inflation would result in reserve increases or decreases that would be reflected in our earnings in periods in which such assumptions are changed.

Reserves do not represent an exact calculation of liability. Rather, reserves represent an estimate of what management expects the ultimate settlement and claim administration will cost. While the methods for establishing the reserves are well tested over time, some of the major assumptions about anticipated loss emergence patterns are subject to unanticipated fluctuation. These estimates, which generally involve actuarial projections, are based on management's assessment of facts and circumstances then known, as well as estimates of trends in claims severity and frequency, judicial theories of liability and other factors, including the actions of third parties, which are beyond the Company's control. These variables are affected by external and internal events, such as inflation and economic volatility, judicial and litigation trends, reinsurance coverage, legislative changes and claim handling and reserving practices, which make it more difficult to accurately predict claim costs. 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. Although the loss reserves included in the Company's financial statements represent

management's best estimates, setting reserves is inherently uncertain and the Company cannot provide assurance that its current reserves will prove adequate in light of subsequent events.

The Company discounts its liabilities for certain workers' compensation reserves. The amount of workers' compensation reserves that were discounted was \$1,731 million and \$1,793 million at December 31, 2019 and 2018, respectively. The aggregate net discount for those reserves, after reflecting the effects of ceded reinsurance, was \$530 million and \$563 million at December 31, 2019 and 2018, respectively. At December 31, 2019, discount rates by year ranged from 2.0% to 6.5%, with a weighted average discount rate of 3.7%.

Substantially all discounted workers' compensation reserves (97% of total discounted reserves at December 31, 2019) are excess workers' compensation reserves. In order to properly match loss expenses with income earned on investment securities supporting the liabilities, reserves for excess workers' compensation business are discounted using risk-free discount rates determined by reference to the U.S. Treasury yield curve. These rates are determined annually based on the weighted average rate for the period. Once established, no adjustments are made to the discount rate for that period, and any increases or decreases in loss reserves in subsequent years are discounted at the same rate, without regard to when any such adjustments are recognized. The expected loss and loss expense payout patterns subject to discounting are derived from the Company's loss payout experience.

The Company also discounts reserves for certain other long-duration workers' compensation reserves (representing approximately 3% of total discounted reserves at December 31, 2019), including reserves for quota share reinsurance and reserves related to losses regarding occupational lung disease. These reserves are discounted at statutory rates permitted by the Department of Insurance of the State of Delaware.

To date, known environmental and asbestos claims have not had a material impact on the Company's operations, because its subsidiaries generally did not insure large industrial companies that are subject to significant environmental or asbestos exposures prior to 1986 when an absolute exclusion was incorporated into standard policy language.

The Company's net reserves for losses and loss expenses relating to environmental and asbestos claims on policies written before adoption of the absolute exclusion was \$24 million at December 31, 2019 and \$28 million at December 31, 2018. The estimation of these liabilities is subject to significantly greater than normal variation and uncertainty because it is difficult to make an actuarial estimate of these liabilities due to the absence of a generally accepted actuarial methodology for these exposures and the potential effect of significant unresolved legal matters, including coverage issues, as well as the cost of litigating the legal issues. Additionally, the determination of ultimate damages and the final allocation of such damages to financially responsible parties are highly uncertain.

The table below provides a reconciliation of the beginning of year and end of year property casualty reserves for the indicated years:

(In thousands)	2019	2018	2017
Net reserves at beginning of year	\$ 10,248,883	\$ 10,056,914	\$ 9,590,265
Net provision for losses and loss expenses:			
Claims occurring during the current year (1)	4,057,989	3,926,489	3,963,543
Increase (decrease) in estimates for claims occurring in prior years (2)	34,079	6,831	(5,165)
Loss reserve discount amortization	39,048	41,382	43,970
Total	4,131,116	3,974,702	4,002,348
Net payments for claims:			
Current year	985,599	964,808	1,027,405
Prior years	2,673,803	2,700,077	2,562,550
Total	3,659,402	3,664,885	3,589,955
Foreign currency translation	(22,599)	(117,848)	54,256
Net reserves at end of year	10,697,998	10,248,883	10,056,914
Ceded reserves at end of year	1,885,251	1,717,565	1,613,494
Gross reserves at end of year	\$ 12,583,249	\$ 11,966,448	\$ 11,670,408
Net change in premiums and losses occurring in prior years:			
(Increase) decrease in estimates for claims occurring in prior years (2)	\$ (34,079)	\$ (6,831)	\$ 5,165
Retrospective premium adjustments for claims occurring in prior years (3)	53,511	45,638	32,162
Net favorable premium and reserve development on prior years	\$ 19,432	\$ 38,807	\$ 37,327

- (1) Claims occurring during the current year are net of loss reserve discounts of \$20 million, \$24 million and \$22 million in 2019, 2018 and 2017, respectively.
- (2) The change in estimates for claims occurring in prior years is net of loss reserve discount. On an undiscounted basis, the estimates for claims occurring in prior years increased by \$19 million in 2019, and decreased by \$4 million in 2018 and \$32 million in 2017, respectively.
- (3) For certain retrospectively rated insurance policies and reinsurance agreements, changes in loss and loss expenses for prior years are offset by additional or return premiums.

Also, see Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and note 13, Reserves for Losses and Loss Expenses included in our audited consolidated financial statements for further information regarding the changes in estimates for claims occurring in prior years.

A reconciliation between the reserves as of December 31, 2019 as reported in the accompanying consolidated GAAP financial statements and those reported on the basis of statutory accounting principles (“SAP”) in the Company’s U.S. regulatory filings is as follows:

(In thousands)	
Net reserves reported in U.S. regulatory filings on a SAP basis	\$ 10,292,373
Reserves for non-U.S. companies	447,526
Loss reserve discounting (1)	(41,901)
Ceded reserves	1,885,251
Gross reserves reported in the consolidated GAAP financial statements	\$ 12,583,249

- (1) For statutory purposes, the Company discounts its workers’ compensation reinsurance reserves at 3.3% as prescribed or permitted by the Department of Insurance of the State of Delaware. In its GAAP financial statements, the Company discounts excess workers’ compensation reserves at the risk-free rate and assumed workers’ compensation reserves at the statutory rate.

Reinsurance

We follow a common industry practice of reinsuring a portion of our exposures and paying to reinsurers a portion of the premiums received on the policies that we write. Reinsurance is purchased principally to reduce net liability on individual risks and to protect against catastrophic losses. Although reinsurance does not legally discharge an insurer from its primary liability for the full amount of the policies, it does make the assuming reinsurer contractually liable to the insurer to the extent of the reinsurance coverage. We monitor the financial condition of our reinsurers and attempt to place our coverages only with substantial, financially sound carriers. As a result, generally the reinsurers who reinsure our casualty insurance must have an A.M. Best rating of “A (Excellent)” or better with at least \$1 billion in policyholder surplus and the reinsurers who cover our property insurance must have an A.M. Best rating of “A- (Excellent)” or better with at least \$1 billion in policyholder surplus.

Regulation

U.S. Regulation

Our U.S. insurance subsidiaries are subject to varying degrees of regulation and supervision in the jurisdictions in which they do business.

Overview. Our domestic insurance subsidiaries are subject to statutes which delegate regulatory, supervisory and administrative powers to state insurance commissioners. This regulation relates to such matters as the standards of solvency which must be met and maintained; the licensing of insurers and their agents; the nature of and limitations on investments; deposits of securities for the benefit of policyholders; approval of certain policy forms and premium rates; periodic examination of the affairs of insurance companies; annual and other reports required to be filed on the financial condition of insurers or for other purposes; establishment and maintenance of reserves for unearned premiums, loss expenses and losses; and requirements regarding numerous other matters. Our property casualty subsidiaries, other than excess and surplus and reinsurance subsidiaries, must generally file all rates with the insurance department of each state in which they operate. Our excess and surplus and reinsurance subsidiaries generally operate free of rate and form regulation.

Holding Company Statutes. In addition to regulatory supervision of our insurance subsidiaries, we are subject to state statutes governing insurance holding company systems. Under the terms of applicable state statutes, any person or entity desiring to purchase more than a specified percentage (commonly 10%) of our outstanding voting securities would be required to obtain prior regulatory approval of the purchase. Typically, such statutes require that we periodically file information with the appropriate state insurance commissioner, including information concerning our capital structure, ownership, financial condition and general business operations.

In addition, we must annually submit to our lead state regulator an “enterprise risk management report” which identifies the activities and circumstances of any affiliated company that might have a material adverse effect on the financial condition of our group or our U.S. licensed insurers.

Approximately half the states have also adopted changes to the holding company act that authorize U.S. insurance regulators to lead or participate in the group-wide supervision of certain international insurance groups. In November 2019, the International Association of Insurance Supervisors (“IAIS”), an international standard setter, adopted a global framework for the supervision of internationally active insurance groups, as discussed below under “- International Regulation.” This framework includes a risk-based, group-wide global insurance capital standard (“ICS”), which will undergo a five-year monitoring period starting in January 2020. In the U.S., the National Association of Insurance Commissioners (“NAIC”) is developing a group capital calculation tool that uses a risk-based capital aggregation methodology 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 expects to adopt the group capital calculation tool in 2020. It is unclear how the development of group capital measures will interact with existing capital requirements for insurance companies in the United States and with international capital standards. It is possible that we may be required to hold additional capital as a result of these developments.

Nearly all states have adopted the NAIC's Risk Management and Own Risk and Solvency Assessment Model Act (the “ORSA Model Act”), which requires an insurance holding company system’s chief risk officer to submit annually to its lead state insurance regulator an Own Risk and Solvency Assessment Summary Report (“ORSA”). The ORSA is a confidential internal assessment of the material and relevant risks associated with an insurer’s current business plan and the sufficiency of capital resources to support those risks. Under ORSA, we are required to:

- regularly, no less than annually, conduct an ORSA to assess the adequacy of our risk management framework, and current and estimated projected future solvency position;
- internally document the process and results of the assessment; and

- provide a confidential high-level ORSA Summary Report annually to the Commissioner of Insurance of the State of Delaware (our lead state commissioner).

Cybersecurity Regulations. New York’s cybersecurity regulation for financial services institutions that are authorized by the New York State Department of Financial Services (“Part 500”), including our insurance subsidiaries licensed in New York, became effective on March 1, 2017. The regulation requires these entities to establish and maintain a cybersecurity program designed to protect consumers’ private data and the confidentiality, integrity and availability of the licensee’s information systems. On October 24, 2017, the NAIC adopted the Insurance Data Security Model Law (the “Cybersecurity Model Law”), which establishes standards for data security, the investigation of cybersecurity events involving unauthorized access to, or the misuse of, certain nonpublic information, and reporting to insurance commissioners. The Cybersecurity Model Law imposes significant new regulatory burdens intended to protect the confidentiality, integrity and availability of information systems. Its implementation will be based on adoption by state legislatures. To date, the Cybersecurity Model Law has only been adopted in a few states, including one of our domiciliary states. Importantly, a drafting note in the Cybersecurity Model Law states that a licensee’s compliance with the New York cybersecurity regulation is intended to constitute compliance with the Cybersecurity Model Law.

Certain states are developing or have developed regulations related to privacy and data security. For example, in 2018 California enacted the California Consumer Privacy Act (“CCPA”), which broadly regulates the sale of California residents’ personal information and grants California residents certain rights to, among other things, access and delete data about them in certain circumstances. CCPA became effective on January 1, 2020, and compliance with the CCPA may increase the cost of providing our services in California. Other states have considered - and may adopt - similar proposals. We cannot predict the impact, if any, that any proposed or future cybersecurity regulations will have on our business, financial condition or results of operations.

Risk-Based Capital Requirements. The NAIC utilizes a Risk-Based Capital (“RBC”) formula that is designed to measure the adequacy of an insurer’s statutory surplus in relation to the risks inherent in its business. The RBC formula develops a risk adjusted target level of adjusted statutory capital by applying certain factors to various asset, premium and reserve items. The NAIC RBC Model Law provides for four incremental levels of regulatory attention for insurers whose surplus is below the calculated RBC target. These levels of attention range in severity from requiring the insurer to submit a plan for corrective action to actually placing the insurer under regulatory control. The RBC of each of our domestic insurance subsidiaries was above any RBC action level as of December 31, 2019.

Insurance Regulatory Information System. The NAIC also has developed a set of 13 financial ratios for property and casualty insurers referred to as the Insurance Regulatory Information System (“IRIS”). On the basis of statutory financial statements filed with state insurance regulators, the NAIC annually calculates these IRIS ratios to assist state insurance regulators in monitoring the financial condition of insurance companies. The NAIC has established an acceptable range for each of the IRIS financial ratios.

Guaranty Funds. Our U.S. insurance subsidiaries are also subject to assessment by state guaranty funds when an insurer in a particular jurisdiction has been judicially declared insolvent and the insolvent company’s available funds are insufficient to pay policyholders and claimants the amounts to which they are entitled. The protection afforded under a state’s guaranty fund to policyholders of the insolvent insurer varies from state to state. Generally, all licensed property casualty insurers are considered to be members of the fund, and assessments are based upon their pro rata share of direct written premiums in that state. The NAIC Post-Assessment Property and Liability Insurance Guaranty Association Model Act, which many states have adopted, limits assessments to an insurer to 2% of its subject premium and permits recoupment of assessments through rate setting. Likewise, several states (or underwriting organizations of which our insurance subsidiaries are required to be members) have limited assessment authority with regard to deficits in certain lines of business.

Additionally, state insurance laws and regulations require us to participate in mandatory property-liability “shared market,” “pooling” or similar arrangements that provide certain types of insurance coverage to individuals or others who otherwise are unable to purchase coverage voluntarily provided by private insurers. Shared market mechanisms include assigned risk plans and fair access to insurance requirement or “FAIR” plans. In addition, some states require insurers to participate in reinsurance pools for claims that exceed specified amounts. Our participation in these mandatory shared market or pooling mechanisms generally is related to the amount of our direct writings for the type of coverage written by the specific arrangement in the applicable state.

Dividends. We receive funds from our insurance company subsidiaries in the form of dividends and management fees for certain management services. Annual dividends in excess of maximum amounts prescribed by state statutes may not be paid without the approval of the insurance commissioner of the state in which an insurance subsidiary is domiciled. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources.”

Trade Practices. State insurance laws and regulations include numerous provisions governing trade practices and the marketplace activities of insurers, including provisions governing marketing and sales practices, policyholder services, claims management and complaint handling. State regulatory authorities generally enforce these provisions through periodic market conduct examinations.

Investment Regulation. Investments by our domestic insurance companies must comply with applicable laws and regulations which prescribe the kind, quality and concentration of investments. In general, these laws and regulations permit investments in federal, state and municipal obligations, corporate bonds, preferred and common equity securities, mortgage loans, real estate and certain other investments, subject to specified limits and certain other qualifications. Investments that do not comply with these limits and qualifications are deducted in our insurance subsidiaries' calculation of their statutory capital and surplus.

Terrorism Risk Insurance. The Terrorism Risk Insurance Act of 2002 established a Federal program that provides for a system of shared public and private compensation for insured losses resulting from acts of terrorism. Pursuant to the Terrorism Risk Insurance Program Reauthorization Act of 2015 ("TRIPRA"), the program was extended until December 31, 2027.

TRIPRA provides a federal backstop to all U.S. based property and casualty insurers for insurance related losses resulting from any act of terrorism on U.S. soil or against certain U.S. air carriers, vessels or foreign missions. TRIPRA is applicable to almost all commercial lines of property and casualty insurance but excludes commercial auto, burglary and theft, surety, professional liability and farm owners' multi-peril insurance. Insurers with direct commercial property and casualty insurance exposure in the United States are required to participate in the program and make available coverage for certified acts of terrorism. TRIPRA's definition of certified acts includes domestic terrorism. Federal participation will be triggered under TRIPRA when the Secretary of Treasury certifies an act of terrorism.

Under the program, the federal government will pay 81% of an insurer's covered losses in excess of the insurer's applicable deductible as of January 1, 2020. This amount will decrease to 80% on a pro-rata basis over a five-year period that began in 2017. The insurer's deductible is based on 20% of earned premium for the prior year for covered lines of commercial property and casualty insurance. Based on our 2019 earned premiums, our aggregate deductible under TRIPRA during 2020 will be approximately \$993 million. The federal program will not pay losses for certified acts unless such losses exceed \$200 million industry-wide for calendar year 2020 and any calendar year thereafter. TRIPRA limits the federal government's share of losses at \$100 billion for a program year. In addition, an insurer that has satisfied its deductible is not liable for the payment of losses in excess of the \$100 billion cap.

Excess and Surplus Lines. The regulation of our U.S. subsidiaries' excess and surplus lines insurance business differs significantly from the regulation of our admitted business. Our surplus lines subsidiaries are subject to the surplus lines regulation and reporting requirements of the jurisdictions in which they are eligible to write surplus lines insurance. Although the surplus lines business is generally less regulated than admitted business, principally with respect to rates and policy forms, strict regulations apply to surplus lines placements in the laws of every state and the regulation of surplus lines insurance may undergo changes in the future. Federal or state measures may be introduced to increase the oversight of surplus lines insurance in the future.

Federal Regulation. Although the federal government and its regulatory agencies generally do not directly regulate the business of insurance, federal initiatives could have an impact on our business in a variety of ways. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act") effected sweeping changes to financial services regulation in the United States. The Dodd-Frank Act created two new federal government bodies, the Federal Insurance Office (the "FIO") and the Financial Stability Oversight Council (the "FSOC"), which may impact the regulation of insurance. Although the FIO has preemption authority over state insurance laws that conflict with certain international agreements, it does not have general supervisory or regulatory authority over the business of insurance. The FIO has authority to represent the United States in international insurance matters and is authorized to monitor the U.S. insurance industry and identify potential regulatory gaps that could contribute to systemic risk. In May 2018, the Economic Growth, Regulatory Relief and Consumer Protection Act ("Economic Growth Act") was signed into law. Among other things, the Economic Growth Act addresses the roles played by federal regulators at international insurance standard-setting forums. It directs the Director of the FIO and the Board of Governors of the Federal Reserve to support increased transparency at international standard-setting regulatory forums (e.g., the IAIS). These federal regulations also instruct the FIO and the Federal Reserve to achieve consensus positions with the states through the NAIC prior to taking a position on any insurance proposal by a global insurance regulatory forum.

The Dodd-Frank Act authorizes the Secretary of the Treasury and U.S. Trade Representative to enter into international agreements of mutual recognition regarding the prudential regulation of insurance or reinsurance (a "Covered Agreement"). In September 2017, the U.S. and the European Union ("EU") signed the Covered Agreement.

The Covered Agreement addresses three areas of prudential supervision: reinsurance, group supervision and the exchange of information between the U.S. and EU. Each party is working on its internal requirements and procedures (such as amending

or promulgating appropriate statutes and regulations) in order for the Covered Agreement to become effective. Under the Covered Agreement, reinsurance collateral requirements will no longer apply to qualifying EU reinsurers that sell reinsurance to the U.S. market, and U.S. reinsurers operating in the EU market will no longer be subject to “local presence” requirements. The Covered Agreement establishes group supervision practices that apply only to U.S. and EU insurance groups operating in both territories. For instance, the Covered Agreement states that, provided the U.S. has adopted group supervision including worldwide group governance, solvency, capital and reporting, U.S.-headquartered insurance groups with operations in the EU will be supervised at the worldwide level only by U.S. insurance regulators precluding EU insurance supervisors from exercising solvency and capital requirements over the worldwide operations of U.S.-headquartered insurers.

U.S. states have five years from the date of signature to remove reinsurance collateral requirements for EU reinsurers that meet certain standards (such as minimum capital and solvency ratios and claims payment standards), while EU member states have two years to revise their “local presence” laws. Under the Dodd-Frank Act, the FIO has preemption authority over state insurance laws that conflict with the Covered Agreement. In late December 2018, the U.S. Department of the Treasury and the Office of the U.S. Trade Representative entered into a covered agreement with the U.K., which will extend the benefits of a Covered Agreement to the U.K. after Brexit.

Additionally, in June 2019, the NAIC adopted amendments to its Credit for Reinsurance Model Law in order to satisfy the substantive and timing requirements of the Covered Agreement and to pave the way for U.S. states to similarly amend their credit for reinsurance laws and avoid potential federal preemption of these laws. The NAIC has also taken steps to make its amended Credit for Reinsurance Model Law an accreditation standard for all states. The newly amended Credit for Reinsurance Model Law also extends the zero reinsurance collateral provisions in the Covered Agreement to 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 Qualified Jurisdiction Process. We cannot currently predict the impact of these changes to the law or whether any other covered agreements will be successfully adopted, and cannot currently estimate the impact of these changes to the law and any such adopted covered agreements on our business, financial condition or operating results.

The FIO also can recommend to the FSOC that it designate an insurer as an entity posing risks to the United States' financial stability in the event of the insurer's material financial distress or failure, i.e., a "systemically important financial institution" or a "non-bank SIFI." An insurer so designated by FSOC will be subject to Federal Reserve supervision and heightened prudential standards. There are currently no such non-bank SIFIs designated by FSOC. In November 2017, the U.S. Department of Treasury issued a report recommending certain changes to FSOC's process for designating non-bank SIFIs in order to make the designation process more rigorous, clear and transparent. On December 4, 2019, FSOC approved final guidance related to a revised process for designating non-bank SIFIs, which substantially changes FSOC's previous procedures by adopting an activities-based approach and moving away from the entities-based approach. The final guidance became effective on January 29, 2020.

Based upon our current business model and balance sheet, we do not believe that we will be designated by the FSOC as such an institution. Although the potential impacts of the Dodd-Frank Act, its implementing regulations and potential amendments to the Dodd-Frank Act on the U.S. insurance industry are not clear, our business could be affected by changes to the U.S. system of insurance regulation or our designation or the designation of insurers or reinsurers with which we do business as systemically important non-bank financial companies.

International Regulation

Our insurance subsidiaries based in the United Kingdom are regulated by the Prudential Regulation Authority ("PRA") and/or the Financial Conduct Authority ("FCA"). The PRA's primary objectives with regard to insurers are to promote the safety and soundness of insurers and to contribute to the securing of an appropriate degree of protection for current and future policyholders, while the FCA has three operational objectives: (i) to secure an appropriate degree of protection for consumers, (ii) to protect and enhance the integrity of the United Kingdom's financial system, and (iii) to promote effective competition in the interests of consumers in the financial services markets. The PRA and FCA employ a variety of regulatory tools to achieve their objectives, including periodic auditing and reporting requirements, risk assessment reviews, minimum solvency margins and individual capital assessment requirements, dividend restrictions, in certain cases, approval requirements governing the appointment of key officers, approval requirements governing controlling ownership interests and various other requirements. Certain of our subsidiaries are authorized by the PRA to effect and carry out contracts of insurance (which includes reinsurance) in the U.K. and are regulated by both the PRA and the FCA for prudential and conduct of business matters respectively.

Our Lloyd's managing agency is also regulated by Lloyd's, and the Lloyd's syndicate business is subject to Lloyd's supervision. Through Lloyd's, we are licensed to write business in various countries throughout the world by virtue of Lloyd's international licenses. In each such country, we are subject to the laws and insurance regulation of that country. Our insurance subsidiary based in Liechtenstein is regulated by the Financial Market Authority of Liechtenstein, which has regulatory tools

analogous to those of the U.K. regulators noted above. Additionally, U.K. and Liechtenstein laws and regulations also impact us as “controllers” of our European-regulated subsidiaries, whereby we are required to notify the appropriate authorities about significant events relating to such regulated subsidiaries’ controllers (i.e. persons or entities which have certain levels of direct or indirect voting power or economic interests in the regulated entities) as well as changes of control, and to submit annual reports regarding their controllers. The PRA/FCA’s Senior Managers and Certification Regime and analogous regulation in Liechtenstein further provide regulatory frameworks for standards of fitness and propriety, conduct and accountability for individuals in positions of responsibility at insurers. In addition, certain employees are individually registered at Lloyd’s.

An insurance company with authorization to write insurance business in the U.K. may currently provide cross-border services in the other member states of the European Economic Area (“EEA”), a group including member states of the EU and Norway, Liechtenstein and Iceland. These rights may be restricted or modified depending on the United Kingdom’s withdrawal from the EU. See below “Risks Relating To Our Business-The United Kingdom leaving the EU could adversely affect our business” for more information.

Our insurance business throughout the EU and EEA is subject to “Solvency II”, an insurance regulatory regime governing, among other things, capital adequacy and risk management which became effective on January 1, 2016. Lloyd’s applies a capital adequacy test to all Lloyd’s syndicates, including our syndicate, that is based on Solvency II principles. Solvency II provides for the supervision of group solvency. Under Solvency II, it is possible that the U.S. parent of a European Union subsidiary could be subject to certain Solvency II requirements if the U.S. company is not already subject to regulations deemed “equivalent” to Solvency II. Currently, the U.S. system of insurance regulation relating to group supervision is not deemed “equivalent” to Solvency II by European Union authorities. However, we have received a waiver from the PRA, subject to conditions, with respect to the PRA’s supervision of our group, which waives the requirement on us to maintain a group solvency capital requirement as calculated under Solvency II rules. The Covered Agreement also prohibits any EU supervisor from exercising group-wide supervision at any level above the highest company organized in the country of that supervisor.

We must also comply with the EU General Data Protection Regulation (“GDPR”), which took effect in May 2018. The regulation’s goal is to impose increased individual rights and protections for all personal data located in or originating from the EU. GDPR is extraterritorial in that it applies to all businesses in the EU and any business outside the EU that process EU personal data of individuals in the EU. Moreover, there are significant fines associated with non-compliance. In particular, we will need to monitor our compliance with all relevant member states’ laws and regulations, including where permitted derogations from the GDPR are introduced. The introduction of the GDPR, and any resultant changes in EU member states’ national laws and regulations, has increased our compliance obligations and has necessitated the review and implementation of policies and processes relating to our collection and use of data, and has required us to change our business practices regarding these matters.

In addition, we may be affected by regulatory policies adopted by the IAIS, an international standard setter consisting of supervisors and regulators from more than 200 jurisdictions. The IAIS has been working on several initiatives to consider changes to insurer solvency standards and group supervision of companies in a holding company system in response to the increasing globalization of the insurance sector. In November 2019, the IAIS formally adopted a global framework for the supervision of internationally active insurance groups (“IAIGs”), which is referred to as the Common Framework for the Supervision of Internationally Active Insurance Groups, or “ComFrame.” ComFrame is intended to provide a framework of basic standards for IAIGs and a process for supervisors to cooperate in the supervision of IAIGs. Also in November 2019, the IAIS adopted a risk-based group-wide global insurance capital standard (“ICS”) that will apply to IAIGs and ultimately form a part of ComFrame. The ICS will undergo a five-year monitoring period starting in January 2020 during which time it will be used for confidential reporting and discussion in supervisory colleges to provide feedback to the IAIS on the ICS’s design and performance, but it will not trigger any supervisory action. Following the monitoring period, the ICS is expected to be implemented in 2025 as a group-wide prescribed capital requirement for IAIGs and integrated into the rest of ComFrame. As noted above under “- U.S. Regulation,” it is unclear how the development of the ICS will interact with existing capital requirements for insurance companies in the United States and the NAIC’s development of the GCC.

Our international operations are also subject to varying degrees of regulation in Mexico, Australia and Canada and in certain other countries in Europe, South America, and Southeast Asia. Generally, our subsidiaries must satisfy local regulatory requirements. While each country imposes licensing, solvency, auditing and financial reporting requirements, the type and extent of the requirements differ substantially. Key areas where country regulations may differ include: (i) the type of financial reports to be filed; (ii) a requirement to use local intermediaries; (iii) the amount of reinsurance permissible; (iv) the scope of any regulation of policy forms and rates; and (v) the type and frequency of regulatory examinations.

Competition

The property casualty insurance and reinsurance businesses are highly competitive, with many insurance companies of various sizes, as well as other entities offering risk alternatives such as self-insured retentions or captive programs, transacting business in the United States and internationally. We compete directly with a large number of these companies. Competition in our industry is largely measured by the ability to provide insurance and services at a price and on terms that are reasonable and acceptable to the customer. Our strategy in this highly fragmented industry is to seek specialized areas or geographic regions where our operating units can gain a competitive advantage by responding quickly to changing market conditions. Our operating units establish their own pricing practices based upon a Company-wide philosophy to price products with the intent of making an underwriting profit.

Competition for insurance business within the United States comes from other specialty insurers, regional carriers, large national multi-line companies and reinsurers. Our specialty operating units compete with excess and surplus insurers as well as standard carriers. Other regional units compete with mutual and other regional stock companies as well as national carriers. Additionally, direct writers of property casualty insurance compete with our regional units by writing insurance through their salaried employees, generally at a lower acquisition cost than through independent agents such as those used by the Company. We compete internationally with native insurance operations both large and small, which in some cases are related to government entities, as well as with branches or local subsidiaries of multinational companies.

Competition for reinsurance business, which is especially strong, comes from domestic and foreign reinsurers, which produce their business either on a direct basis or through the broker market. These competitors include Swiss Re, Munich Re, Berkshire Hathaway, Transatlantic Reinsurance, Partner Re and others.

In recent years, various institutional investors have increasingly sought to participate in the property and casualty insurance and reinsurance industries. Well-capitalized new entrants to the property and casualty insurance and reinsurance industries, or existing competitors that receive substantial infusions of capital, provide increasing competition, which may adversely impact our business and profitability. Further, an expanded supply of reinsurance capital may lower costs for insurers that rely on reinsurance and, as a consequence, those insurers may be able to price their products more competitively.

Employees

As of January 31, 2020, we employed 7,493 individuals. Of this number, our subsidiaries employed 7,356 persons and the remaining persons were employed at the parent company.

Other Information about the Company's Business

We maintain an interest in the acquisition and startup of complementary businesses and continue to evaluate possible acquisitions and new ventures on an ongoing basis. In addition, our operating units develop new coverages or enter lines of business to meet the needs of insureds.

Seasonal weather variations and other events affect the severity and frequency of losses sustained by the insurance and reinsurance operating units. Although the effect on our business of catastrophes such as tornadoes, hurricanes, hailstorms, wildfires, earthquakes and terrorist acts may be mitigated by reinsurance, they nevertheless can have a significant impact on the results of any one or more reporting periods.

We have no customer that accounts for 10 percent or more of our consolidated revenues.

Compliance by W. R. Berkley and its subsidiaries with federal, state and local provisions that have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to protection of the environment, has not had a material effect upon our capital expenditures, earnings or competitive position.

The Company's internet address is www.berkley.com. The information on our website is not incorporated by reference in this annual report on Form 10-K. The Company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act and other reports filed by us or with respect to our securities by others are accessible free of charge through this website as soon as reasonably practicable after they have been electronically filed with or furnished to the SEC.

ITEM 1A. RISK FACTORS

Our businesses face significant risks. If any of the events or circumstances described as risks below occur, our businesses, results of operations and/or financial condition could be materially and adversely affected. In addition to those described below, our businesses may also be adversely affected by risks and uncertainties not currently known to us or that we currently consider immaterial.

Risks Relating to Our Industry

Our results may fluctuate as a result of many factors, including cyclical changes in the insurance and reinsurance industry.

The results of companies in the property casualty insurance industry historically have been subject to significant fluctuations and uncertainties in demand and pricing, causing cyclical changes in the insurance and reinsurance industry. The demand for insurance is influenced primarily by general economic conditions, while the supply of insurance is often directly related to available capacity or the perceived profitability of the business. In recent years, we have faced significant competition in our business, as a result of new entrants and capital providers, as well as existing insurers seeking to gain or maintain market share. Recently, premium rates have increased at an accelerating pace for most lines of business, while they have decreased in others, most notably workers' compensation. The adequacy of premium rates is affected mainly by the severity and frequency of claims, which are influenced by many factors, including natural disasters, regulatory measures and court decisions that define and expand the extent of coverage and the effects of economic or social inflation on the amount of compensation due for injuries or losses. In addition, investment rates of return have impacted rate adequacy, with interest rates remaining at or near historic lows. These factors can have a significant impact on ultimate profitability because a property casualty insurance policy is priced before its costs are known as premiums usually are determined long before claims are reported. These factors could produce results that would have a negative impact on our results of operations and financial condition.

We face significant competitive pressures in our businesses, which have pressured premium rates in certain areas and could harm our ability to maintain or increase our profitability and premium volume.

We compete with a large number of other companies in our selected lines of business. We compete, and will continue to compete, with major U.S. and non-U.S. insurers and reinsurers, other regional companies, as well as mutual companies, specialty insurance companies, underwriting agencies, diversified financial services companies and insurtech companies. Competitiveness in our businesses is based on many factors, including premium charges, ratings assigned by independent rating agencies, commissions paid to producers, the perceived financial strength of the company, other terms and conditions offered, services provided (including ease of doing business over the internet), speed of claims payment and reputation and experience in the lines to be written. In recent years, the insurance industry has undergone consolidation, which may further increase competition.

Some of our competitors, particularly in the reinsurance business, have greater financial and/or marketing resources than we do. These competitors within the reinsurance market include Swiss Re, Munich Re, Berkshire Hathaway, Transatlantic Reinsurance, and Partner Re. We expect that perceived financial strength, in particular, will become more important as customers seek high quality reinsurers.

Over the past several years, increased supply has led to significant competition in our business. Our E&S operating units have also encountered competition from admitted companies seeking to increase market share. More recently, insurance prices have generally increased for most lines of business, excluding workers' compensation. However, loss costs have also increased and the duration and magnitude of the improving pricing environment remains uncertain. With the low level of interest rates available, current price levels for certain lines of business may remain below the prices required for us to achieve our long-term return objectives. We expect to continue to face strong competition in these and our other lines of business.

In recent years, various types of investors have increasingly sought to participate in the property and casualty insurance and reinsurance industries. Well-capitalized new entrants to the property and casualty insurance and reinsurance industries, or existing competitors that receive substantial infusions of capital or access to third-party capital, provide increasing competition, which may adversely impact our business and profitability. Further, an expanded supply of reinsurance capital may lower costs for insurers that rely on reinsurance and, as a consequence, those insurers may be able to price their products more competitively. In addition, technology companies or other third parties have created, and may in the future create, technology-enabled business models, processes, platforms or alternate distribution channels that may adversely impact our competitive position.

This intense competition could cause the supply and/or demand for insurance or reinsurance to change, which affect our ability to price our products at attractive rates and retain existing business or write new products at adequate rates or on terms

and conditions acceptable to us. If we are unable to retain existing business or write new business at adequate rates or on terms and conditions acceptable to us, our results of operations could be materially and adversely affected.

Our actual claims losses may exceed our reserves for claims, which may require us to establish additional reserves.

Our gross reserves for losses and loss expenses were approximately \$12.6 billion as of December 31, 2019. Our loss reserves reflect our best estimates of the cost of settling claims and related expenses with respect to insured events that have occurred.

Reserves do not represent an exact calculation of liability. Rather, reserves represent an estimate of what management expects the ultimate settlement and claims administration will cost for claims that have occurred, whether known or unknown. The major assumptions about anticipated loss emergence patterns are subject to unanticipated fluctuation. These estimates, which generally involve actuarial projections, are based on management's assessment of facts and circumstances then known, as well as estimates of future trends in claims severity and frequency, inflation, judicial theories of liability, reinsurance coverage, legislative changes and other factors, including the actions of third parties, which are beyond our control.

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. In periods with increased economic volatility, it becomes more difficult to accurately predict claim costs. It is especially difficult to estimate the impact of inflation on loss reserves given the current economic environment and related government actions. Both inflation overall and medical cost inflation, which has historically been greater than inflation overall, can have an adverse impact.

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 such estimates are changed. Because setting reserves is inherently uncertain, we cannot assure that our current reserves will prove adequate in light of subsequent events. Should we need to increase our reserves, our pre-tax income for the reporting period would decrease by a corresponding amount.

We discount our reserves for excess and assumed workers' compensation business because of the long period of time over which losses are paid. Discounting is intended to appropriately match losses and loss expenses to income earned on investment securities supporting liabilities. The expected loss and loss expense payout pattern subject to discounting is derived from our loss payout experience. Changes in the loss and loss expense payout pattern are recorded in the period they are determined. If the actual loss payout pattern is shorter than anticipated, the discount will be reduced and pre-tax income will decrease by a corresponding amount.

The effects of emerging claim and coverage issues on our business are uncertain.

As industry practices and economic, legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to claim and coverage may emerge. These issues may adversely affect our business by either extending coverage beyond our underwriting intent or by increasing the number or size of claims. Examples of emerging claims and coverage issues include, but are not limited to:

- judicial expansion of policy coverage and a greater propensity to grant claimants more favorable amounts and the impact of new theories of liability;
- plaintiffs targeting property and casualty insurers, including us, in purported class action litigation relating to claims-handling and other practices;
- social inflation trends, including higher and more frequent claims, more favorable judgments and legislated increases;
- medical developments that link health issues to particular causes, resulting in liability claims;
- claims relating to unanticipated consequences of current or new technologies, including cyber security related risks;
- claims relating to potentially changing climate conditions; and
- increased claims due to third party funding of litigation.

In some instances, these emerging issues may not become apparent for some time after we have issued the affected insurance policies. As a result, the full extent of liability under our insurance policies may not be known until many years after the policies are issued.

In addition, the potential passage of new legislation designed to expand the right to sue, to remove limitations on recovery, to extend the statutes of limitations or otherwise to repeal or weaken tort reforms could have an adverse impact on our business.

The effects of these and other unforeseen emerging claim and coverage issues are difficult to predict and could harm our business and materially and adversely affect our results of operations.

As a property casualty insurer, we face losses from natural and man-made catastrophes.

Property casualty 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 have had a significant impact on our results. For example, catastrophe losses net of reinsurance recoveries were \$90 million in 2019, \$105 million in 2018, and \$184 million in 2017. Similarly, man-made catastrophes can also have a material impact on our financial results.

Catastrophes can be caused by various events, including hurricanes, windstorms, earthquakes, tsunamis, hailstorms, explosions, severe winter weather and fires, as well as terrorist and other man-made activities, including drilling, mining and other industrial accidents, cyber events or terrorist activities. The incidence and severity of catastrophes are inherently unpredictable. The extent of losses from a catastrophe is a function of both the total amount of insured exposure in the area affected by the event and the severity of the event. Some catastrophes are restricted to small geographic areas; however, hurricanes, earthquakes, tsunamis and other disasters may produce significant damage in large, heavily populated areas. Catastrophes can cause losses in a variety of our property and casualty lines, and most of our past catastrophe-related claims have resulted from severe storms. Seasonal weather variations or the impact of climate change may affect the severity and frequency of our losses. Insurance companies are not permitted to reserve for a catastrophe until it has occurred. It is therefore possible that a catastrophic event or multiple catastrophic events could produce significant losses and have a material adverse effect on our results of operations and financial condition.

Changing climate conditions may increase the frequency and severity of catastrophic events and thereby adversely affect our financial condition and results.

Over the past several years, changing weather patterns and climatic conditions, such as global warming, appear to have contributed to the unpredictability, frequency and severity of natural disasters and created additional uncertainty as to future trends and exposures. There is a growing scientific consensus that global warming and other climate change are increasing the frequency and severity of catastrophic weather events, such as hurricanes, tornadoes, windstorms, floods and other natural disasters. Such changes make it more difficult for us to predict and model catastrophic events, reducing our ability to accurately price our exposure to such events and mitigate our risks. Any increase in the frequency or severity of natural disasters may adversely affect our financial condition and results.

We, as a primary insurer, may have significant exposure for terrorist acts.

To the extent an act of terrorism, whether a domestic or foreign act, is certified by the Secretary of Treasury, we may be covered under the Terrorism Risk Insurance Program Reauthorization Act of 2015 (“TRIPRA”), for up to 81% of our covered losses as of January 1, 2020 for certain property/casualty lines of insurance. However, any such coverage would be subject to a mandatory deductible based on 20% of earned premium for the prior year for the covered lines of commercial property and casualty insurance. Based on our 2019 earned premiums, our aggregate deductible under TRIPRA during 2020 is approximately \$993 million. In addition, the coverage provided under TRIPRA does not apply to reinsurance that we write.

We are subject to extensive governmental regulation, which increases our costs and could restrict the conduct of our business.

We are subject to extensive governmental regulation and supervision in both the United States and foreign jurisdictions. Most insurance regulations are designed to protect the interests of policyholders rather than stockholders and other investors. This system of regulation, generally administered in the United States by a department of insurance in each state in which we do business, relates to, among other things:

- standards of solvency, including risk-based capital measurements;
- restrictions on the nature, quality and concentration of investments;
- requirements pertaining to certain methods of accounting;
- evaluating enterprise risk to an insurer;
- rate and form regulation pertaining to certain of our insurance businesses;
- potential assessments for the provision of funds necessary for the settlement of covered claims under certain policies provided by impaired, insolvent or failed insurance companies; and
- involvement in the payment or adjudication of catastrophe or other claims beyond the terms of the policies.

State insurance departments conduct periodic examinations of the affairs of insurance companies and require the filing of annual and other reports relating to the financial condition of insurance companies, holding company issues and other matters. Our Insurance business internationally is also generally subject to a similar regulatory scheme in each of the jurisdictions where we conduct operations outside the United States.

Federal financial services modernization legislation and legislative and regulatory initiatives taken or which may be taken in response to conditions in the financial markets, global insurance supervision and other factors may lead to additional federal regulation of the insurance industry in the coming years.

The Dodd-Frank Act effected sweeping changes to financial services regulation in the United States. The Dodd-Frank Act established the Financial Stability Oversight Council ("FSOC"), which is authorized to recommend that certain systemically significant non-bank financial companies, including insurance companies, be regulated by the Board of Governors of the Federal Reserve. The Dodd-Frank Act also established a Federal Insurance Office ("FIO") which is authorized to study, monitor and report to Congress on the U.S. insurance industry and the significance of global reinsurance to the U.S. insurance market. The FIO also can recommend to the FSOC that it designate an insurer as an entity posing risks to the United States financial stability in the event of the insurer's material financial distress or failure. The potential impact of the Dodd-Frank Act, as amended by the Economic Growth Act, on the U.S. insurance business is not clear. Our business could be affected by changes, whether as a result of the Dodd-Frank Act or otherwise, to the U.S. system of insurance regulation or our designation or the designation of insurers or reinsurers with which we do business as systemically significant non-bank financial companies.

Although state regulation is the primary form of regulation of insurance and reinsurance in the United States, in addition to the changes brought about by the Dodd-Frank Act, Congress has considered various proposals relating to the creation of an optional federal charter and repeal of the insurance company antitrust exemption from the McCarran-Ferguson Act. We may be subject to potentially increased federal oversight as a financial institution. In addition, the current administration and the volatile political environment may increase the chance of other federal legislative and regulatory changes that could affect us in ways we cannot predict.

With respect to international measures, Solvency II, the EU regime concerning the capital adequacy, risk management and regulatory reporting for insurers and reinsurers may affect our insurance businesses. Implementation of Solvency II in EU member states occurred on January 1, 2016, and as the Solvency II regime evolves over time, we may be required to utilize a significant amount of resources to ensure compliance. In addition, despite the waiver of the Solvency II group capital requirements we received, Solvency II may have the effect of increasing the capital requirements of our EU domiciled insurers. Additionally, our capital requirements and compliance requirements may be adversely affected if the EU Commission does not deem the insurance regulatory regimes of the jurisdictions outside the EU in which we have insurance or reinsurance companies domiciled to be "equivalent" to Solvency II. If our compliance with Solvency II or any other regulatory regime is challenged, we may be subject to monetary or other penalties. In addition, in order to ensure compliance with applicable regulatory requirements or as a result of any investigation, including remediation efforts, we could be required to incur significant expenses and undertake additional work, which in turn may divert resources from our business.

We may be unable to maintain all required licenses and approvals and our business may not fully comply with the wide variety of applicable laws and regulations or the relevant authority's interpretation of the laws and regulations. Also, some regulatory authorities have relatively broad discretion to grant, renew or revoke licenses and approvals. If we do not have the requisite licenses and approvals or do not comply with applicable regulatory requirements, the insurance regulatory authorities could preclude or temporarily suspend us from carrying on some or all of our activities or monetarily penalize us. Also, changes in the level of regulation of the insurance industry, whether federal, state or foreign, or changes in laws or regulations themselves or interpretations by regulatory authorities, may further restrict the conduct of our business.

Risks Relating to Our Business

Our international operations expose us to investment, political and economic risks, including foreign currency and credit risk.

Our expanding international operations in the United Kingdom, Continental Europe, South America, Canada, Mexico, Scandinavia, the Asia-Pacific region, South Africa and Australia expose us to increased investment, political and economic risks, including foreign currency and credit risk. Changes in the value of the U.S. dollar relative to other currencies could have an adverse effect on our results of operations and financial condition.

Our investments in non-U.S.-denominated assets are subject to fluctuations in non-U.S. securities and currency markets, and those markets can be volatile. Non-U.S. currency fluctuations also affect the value of any dividends paid by our non-U.S. subsidiaries to their parent companies in the U.S.

The United Kingdom leaving the EU could adversely affect our business.

The 2016 U.K. referendum on its membership in the EU resulted in a majority of U.K. voters voting in favor of the U.K. leaving the EU (“Brexit”). In accordance with the Withdrawal Agreement implementing Brexit, the U.K. formally left the EU on January 31, 2020. The Withdrawal Agreement provides for a transitional period ending on December 31, 2020, during which time the U.K. will continue to enjoy the same rights and obligations as it had as a member state, though without participating in the EU institutions. During the transitional period, the U.K. and the EU are expected to negotiate a long-term agreement covering, among other things, the terms of trade between them, which will be based on the principles set out in the accompanying Political Declaration. However, EU officials and others have expressed skepticism that such a trade deal can be agreed in the time frame allowed. The U.K. government has stated that it will not seek to extend the transitional period. There is, therefore, a risk that at the end of 2020 no trade deal (or only a minimal trade deal) will have been completed, with the result that a “hard” Brexit occurs on December 31, 2020.

Depending on the terms of the long-term trade deal with the EU and/or whether or not a “hard” Brexit occurs on December 31, 2020, the U.K. could lose access to the single EU market and to free trade deals with several countries that already have agreements with the EU.

Such barriers to trade could affect the attractiveness of the U.K. and impact our U.K. business. We also face risks associated with the potential uncertainty and consequences related to Brexit, including with respect to volatility in financial markets, exchange rates and interest rates. These uncertainties could increase the volatility of, or reduce, our investment results in particular periods or over time. Brexit could adversely affect European or worldwide political, regulatory, economic or market conditions and could contribute to instability in political institutions and regulatory agencies. Brexit could also lead to legal uncertainty and differing laws and regulations between the U.K. and the EU. Any of these potential effects, and others we cannot anticipate, could adversely affect our results of operations or financial condition.

We may be unable to attract and retain key personnel and qualified employees.

We depend on our ability to attract and retain key personnel, including our President and CEO, Executive Chairman, senior executive officers, presidents of our operating units, experienced underwriters and other skilled employees who are knowledgeable about our business. If the quality of our underwriting team and other personnel decreases, we may be unable to maintain our current competitive position in the specialized markets in which we operate, and be unable to expand our operations into new products and markets.

We cannot guarantee that our reinsurers will pay in a timely fashion, if at all, and, as a result, we could experience losses.

We purchase reinsurance by transferring part of the risk that we have assumed, known as ceding, to a reinsurance company in exchange for part of the premium we receive in connection with the risk. Although reinsurance makes the reinsurer contractually liable to us to the extent the risk is transferred or ceded to the reinsurer, it does not relieve us, the reinsured, of our liability to our policyholders. Our reinsurers may not pay the reinsurance recoverables that they owe to us or they may not pay such recoverables on a timely basis. Accordingly, we bear credit risk with respect to our reinsurers, and if our reinsurers fail to pay us, our financial results would be adversely affected. Underwriting results and investment returns of some of our reinsurers may affect their future ability to pay claims. As of December 31, 2019, the amount due from our reinsurers was approximately \$2,134 million, including amounts due from state funds and industry pools where it was intended that we would bear no risk. Certain of these amounts are secured by letters of credit or by funds held in trust on our behalf.

We are subject to credit risk relating to our policyholders, independent agents and brokers.

In addition to exposure to credit risk related to our reinsurance recoverables and investment portfolio, we are exposed to credit risk in several other areas of our business, including credit risk relating to policyholders, independent agents and brokers. For example our policyholders, independent agents or brokers may not pay a part of or the full amount of premiums owed to us or our brokers or other third party claim administrators may not deliver amounts owed on claims under our insurance and reinsurance contracts for which we have provided funds.

As credit risk is generally a function of the economy, we face a greater credit risk in an economic downturn. While we attempt to manage credit risks through underwriting guidelines, collateral requirements and other oversight mechanisms, our efforts may not be successful. For example, to reduce such credit risk, we require certain third parties to post collateral for some or all of their obligations to us. In cases where we receive pledged securities and the applicable counterparty is unable to honor

its obligations, we may be exposed to credit risk on the securities pledged and/or the risk that our access to that collateral may be stayed as a result of bankruptcy. In cases where we receive letters of credit from banks as collateral and one of our counterparties is unable to honor its obligations, we are exposed to the credit risk of the banks that issued the letters of credit.

We are rated by A.M. Best, Standard & Poor's, Moody's, and Fitch, and a decline in these ratings could affect our standing in the insurance industry and cause our sales and earnings to decrease.

Ratings have become an increasingly important factor in establishing the competitive position of insurance companies. Certain of our insurance company subsidiaries are rated by A.M. Best, Standard & Poor's, Moody's and Fitch. Our ratings are subject to periodic review, and we cannot assure you that we will be able to retain our current or any future ratings.

If our ratings are reduced from their current levels by A.M. Best, Standard & Poor's, Moody's or Fitch, our competitive position in the insurance industry could suffer and it would be more difficult for us to market our products. A ratings downgrade could also adversely limit our access to capital markets, which may increase the cost of debt. A significant downgrade could result in a substantial loss of business as policyholders move to other companies with higher financial strength ratings.

If market conditions cause reinsurance to be more costly or unavailable, we may be required to bear increased risks or reduce the level of our underwriting commitments.

As part of our overall risk and capacity management strategy, we purchase reinsurance for certain amounts of risk underwritten by our insurance company subsidiaries, especially catastrophe risks and those risks with relatively high policy limits. We also purchase reinsurance on risks underwritten by others which we reinsure. Market conditions beyond our control determine the availability and cost of the reinsurance protection we seek to purchase, which may affect the level of our business and profitability. Our reinsurance contracts are generally subject to annual renewal, and we may be unable to maintain our current reinsurance contracts or to obtain other reinsurance contracts in adequate amounts and at favorable rates. In addition, we may be unable to obtain reinsurance on terms acceptable to us relating to certain lines of business that we intend to begin writing. If we are unable to renew our expiring contracts or to obtain new reinsurance contracts, either our net exposures would increase or, if we are unwilling to bear an increase in net exposures, we would have to reduce the level of our underwriting commitments, especially catastrophe exposed risks.

Depending on conditions in the financial markets and the general economy, we may be unable to raise debt or equity capital if needed.

If conditions in the financial markets and the general economy are unfavorable, which may result from disruptions, uncertainty or volatility in the capital and credit markets, we may be unable to access debt or equity capital on acceptable terms if needed, which could have a negative impact on our ability to invest in our insurance company subsidiaries and/or to take advantage of opportunities to expand our business, such as possible acquisitions and the creation of new ventures, and inhibit our ability to refinance our existing indebtedness if we desire to do so, on terms acceptable to us.

We may not find suitable acquisition candidates or new insurance ventures and even if we do, we may not successfully integrate any such acquired companies or successfully invest in such ventures.

As part of our present strategy, we continue to evaluate possible acquisition transactions and the start-up of complementary businesses on an ongoing basis, and at any given time we may be engaged in discussions with respect to possible acquisitions and new ventures. We cannot assure you that we will be able to identify suitable acquisition targets or insurance ventures, that such transactions will be financed and completed on acceptable terms or that our future acquisitions or start-up ventures will be successful. The process of integrating any companies we do acquire or investing in new ventures may have a material adverse effect on our results of operations and financial condition.

If we experience difficulties with our information technology, telecommunications or other computer systems, our ability to conduct our business could be negatively or severely impacted.

Our business is highly dependent upon our employees' ability to perform necessary business functions in an efficient and uninterrupted fashion. A shut-down of, or inability to access, one or more of our facilities, a power outage or a failure of one or more of our information technology, telecommunications or other computer systems could significantly impair our employees' ability to perform such functions on a timely basis. In the event of a disaster such as a natural catastrophe, terrorist attack or industrial accident, or the infection of our systems by a malicious computer virus, our systems could be inaccessible for an extended period of time. In addition, because our information technology and telecommunications systems interface with and depend on third-party systems, we could experience service denials or failures of controls if demand for our service exceeds capacity or a third-party system fails or experiences an interruption. If our business continuity plans or system security does not sufficiently address such a business interruption, system failure or service denial, our ability to write and process new and

renewal business, provide customer service, pay claims in a timely manner or perform other necessary business functions could be significantly impaired and our business could be harmed.

Failure to maintain the security of our networks and confidential data may expose us to liability.

Our operations rely on the secure processing, storage and transmission of confidential and other information in our computer systems and networks. Computer viruses, hackers, employee misconduct and other external hazards could expose our data systems to security breaches. Our electronic transmission of personal, confidential and proprietary information to third parties with whom we have business relationships and our outsourcing of certain technology and business process functions to third parties may expose us to enhanced risk related to data security. While we attempt to develop secure data transmission capabilities with these third-party vendors and others with whom we do business, our vendors and third parties could still suffer data breaches that could result in the exposure of sensitive data and the infiltration of our computer systems. Our failure to protect sensitive personal and our proprietary information, whether owing to breaches of our own systems or those of our vendors, could result in significant monetary and reputational damages. These increased risks, and expanding regulatory requirements regarding data security, could expose us to data loss, monetary and reputational damages and significant increases in compliance costs. As a result, our ability to conduct our business could be materially and adversely affected.

We could be adversely affected if our controls to ensure compliance with guidelines, policies and legal and regulatory standards are not effective.

Our business is highly dependent on our ability to engage on a daily basis in a large number of insurance underwriting, claim processing and investment activities, many of which are highly complex. These activities often are subject to internal guidelines and policies, as well as legal and regulatory standards, including those related to privacy, anti-corruption, anti-bribery and global finance and insurance matters. Our continued expansion into new international markets has brought about additional requirements. A control system, no matter how well designed and operated, can provide only reasonable assurance that the control system's objectives will be met. If our controls are not effective, it could lead to financial loss, unanticipated risk exposure (including underwriting, credit and investment risk) or damage to our reputation.

We could be adversely affected by recent and future changes in U.S. Federal income tax laws.

Tax legislation commonly referred to as the Tax Cuts and Jobs Act, which was signed into law on December 22, 2017, fundamentally overhauled the U.S. tax system by, among other significant changes, reducing the U.S. corporate income tax rate to 21%. In the context of the taxation of U.S. property/casualty insurance companies such as the Company, the Act also modifies the loss reserve discounting rules and the proration rules that apply to reduce reserve deductions to reflect the lower corporate income tax rate. It is possible that other legislation could be introduced and enacted by the current Congress or future Congresses that could have an adverse impact on us. New regulations or pronouncements interpreting or clarifying provisions of the Act may be forthcoming. We cannot predict if, when or in what form such regulations or pronouncements may be provided, whether such guidance will have a retroactive effect or their potential impact on us.

Risks Relating to Our Investments

A significant amount of our assets is invested in fixed maturity securities and is subject to market fluctuations.

Our investment portfolio consists substantially of fixed maturity securities. As of December 31, 2019, our investment in fixed maturity securities was approximately \$14.2 billion, or 72.6% of our total investment portfolio, including cash and cash equivalents. As of that date, our portfolio of fixed maturity securities consisted of the following types of securities: U.S. Government securities (5.5%); state and municipal securities (28.1%); corporate securities (29.2%); asset-backed securities (19.7%); mortgage-backed securities (11.5%) and foreign government (6.0%).

The fair value of these assets and the investment income from these assets fluctuate depending on general economic and market conditions. The fair value of fixed maturity securities generally decreases as interest rates rise. If significant inflation or an increase in interest rates were to occur, the fair value of our fixed maturity securities would be negatively impacted. Conversely, if interest rates decline, investment income earned from future investments in fixed maturity securities will be lower. Some fixed maturity securities, such as mortgage-backed and other asset-backed securities, also carry prepayment risk as a result of interest rate fluctuations. Additionally, given the low interest rate environment, we may not be able to successfully reinvest the proceeds from maturing securities at yields commensurate with our target performance goals.

The value of investments in fixed maturity securities is subject to impairment as a result of deterioration in the credit worthiness of the issuer, default by the issuer (including states and municipalities) in the performance of its obligations in respect of the securities and/or increases in market interest rates. To a large degree, the credit risk we face is a function of the economy; accordingly, we face a greater risk in an economic downturn or recession. During periods of market disruption, it may be difficult to value certain of our securities, particularly if trading becomes less frequent and/or market data becomes less

observable. There may be certain asset classes that were in active markets with significant observable data that become illiquid due to the then current financial environment. In such cases, more securities may require additional subjectivity and management judgment.

Although the historical rates of default on state and municipal securities have been relatively low, our state and municipal fixed maturity securities could be subject to a higher risk of default or impairment due to declining municipal tax bases and revenue. Many states and municipalities operate under deficits or projected deficits, the severity and duration of which could have an adverse impact on both the valuation of our state and municipal fixed maturity securities and the issuer's ability to perform its obligations thereunder. Additionally, our investments are subject to losses as a result of a general decrease in commercial and economic activity for an industry sector in which we invest, as well as risks inherent in particular securities.

Although we attempt to manage these risks through the use of investment guidelines and other oversight mechanisms and by diversifying our portfolio and emphasizing preservation of principal, our efforts may not be successful. Impairments, defaults and/or rate increases could reduce our net investment income and net realized investment gains or result in investment losses. Investment returns are currently, and will likely continue to remain, under pressure due to the continued low inflation, actions by the Federal Reserve, economic uncertainty, more generally, and the shape of the yield curve. As a result, our exposure to the risks described above could materially and adversely affect our results of operations, liquidity and financial condition.

We have invested a portion of our assets in equity securities, merger arbitrage securities, investment funds, private equity, loans and real estate related assets, which are subject to significant volatility and may decline in value.

We invest a portion of our investment portfolio in equity securities, merger arbitrage securities, investment funds, private equity, loans and real estate related assets. At December 31, 2019, our investment in these assets was approximately \$4.3 billion, or 22.1%, of our investment portfolio, including cash and cash equivalents.

Merger and arbitrage trading securities were \$400.8 million, or 2.1% of our investment portfolio, including cash and cash equivalents at December 31, 2019. Merger arbitrage involves investing in the securities of publicly held companies that are the targets in announced tender offers and mergers. Merger arbitrage differs from other types of investments in its focus on transactions and events believed likely to bring about a change in value over a relatively short time period, usually four months or less. Our merger arbitrage positions are exposed to the risk associated with the completion of announced deals, which are subject to regulatory as well as political and other risks.

Real estate related investments, including directly owned, investment funds and loans receivable, were \$2.6 billion, or 13.2% of our investment portfolio, including cash and cash equivalents, at December 31, 2019. We also invest in real estate, financial services, energy, transportation and other investment funds. The values of these investments are subject to fluctuation based on changes in the economy and interest rates in general and the related asset valuations in particular. In addition, our investments in real estate related assets and other alternative investments are less liquid than our other investments.

These investments are subject to significant volatility as a result of the conditions in the financial and commodity markets and the global economy.

Risks Relating to Purchasing Our Securities

We are an insurance holding company and, therefore, may not be able to receive dividends in needed amounts.

As an insurance holding company, our principal assets are the shares of capital stock of our insurance company subsidiaries. We have to rely on dividends from our insurance company subsidiaries to meet our obligations for paying principal and interest on outstanding debt obligations, paying dividends to stockholders and repurchasing our shares and paying corporate expenses. The payment of dividends by our insurance company subsidiaries is subject to regulatory restrictions and will depend on the surplus and future earnings of these subsidiaries. During 2020, the maximum amount of dividends that can be paid without regulatory approval is approximately \$601 million. As a result, in the future we may not be able to receive dividends from these subsidiaries at times and in amounts necessary to meet our obligations, pay dividends or repurchase shares.

Laws and regulations of the jurisdictions in which we conduct business could delay, deter or prevent an attempt to acquire control of us that stockholders might consider to be desirable, and may restrict a stockholder's ability to purchase our common stock.

Generally, United States insurance holding company laws require that, before a person can acquire control of an insurance company, prior written approval must be obtained from the insurance regulatory authorities in the state in which that insurance company is domiciled. Pursuant to applicable laws and regulations, "control" over 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% or more of the voting securities of that insurer or any parent company of such insurer. Indirect ownership includes ownership of the shares of our common stock. Thus, the insurance regulatory authorities of the states in which our insurance subsidiaries are domiciled are likely to apply these restrictions on acquisition of control to any proposed acquisition of our common stock. Some states require a person seeking to acquire control of an insurer licensed but not domiciled in that state to make a filing prior to completing an acquisition if the acquirer and its affiliates, on the one hand, and the target insurer and its affiliates, on the other hand, have specified market shares in the same lines of insurance in that state. Additionally, many foreign jurisdictions where we conduct business impose similar restrictions and requirements.

These provisions can also lead to the imposition of conditions on an acquisition that could delay or prevent its consummation. These laws may discourage potential acquisition proposals and may delay, deter or prevent a change in control of us through transactions, and in particular unsolicited transactions, that some or all of our stockholders might consider to be desirable.

Certain provisions in our organizational documents may have the effect of hindering, delaying or preventing third party takeovers and thus may prevent our stockholders from receiving premium prices for their shares in an unsolicited takeover or make it more difficult for third parties to replace our current management.

Provisions of our Restated Certificate of Incorporation and By-Laws, as well as state insurance statutes, may hinder, delay or prevent unsolicited acquisitions or changes of our control. These provisions may also have the effect of making it more difficult for third parties to cause the replacement of our current management without the concurrence of our board of directors.

These provisions include:

- our classified board of directors and the ability of our board to increase its size and to appoint directors to fill newly created directorships;
- the requirement that 80% of our stockholders must approve mergers and other transactions between us and the holder of 5% or more of our shares, unless the transaction was approved by our board of directors prior to such holder's acquisition of 5% of our shares; and
- the need for advance notice in order to raise business or make nominations at stockholders' meetings.

These provisions may discourage potential acquisition proposals and may delay, deter or prevent a change in control of us through transactions, and in particular unsolicited transactions, that some or all of our stockholders might consider to be desirable.

ITEM 1B. UNRESOLVED STAFF COMMENTS

There are no unresolved written comments that were received from the SEC staff 180 days or more before the end of our fiscal year relating to our periodic or current reports under the Securities Exchange Act of 1934.

ITEM 2. PROPERTIES

W. R. Berkley and its subsidiaries own or lease office buildings or office space suitable to conduct their operations. At December 31, 2019, the Company had aggregate office space of 4,227,391 square feet, of which 1,129,970 were owned and 3,097,421 were leased.

Rental expense for the Company's operations was approximately \$44,107,000, \$45,778,000 and \$52,925,000 for 2019, 2018 and 2017, respectively. Future minimum lease payments, without provision for sublease income, are \$49,293,000 in 2020, \$47,107,000 in 2021 and \$189,134,000 thereafter.

ITEM 3. LEGAL PROCEEDINGS

The Company's subsidiaries are subject to disputes, including litigation and arbitration, arising in the ordinary course of their insurance and reinsurance businesses. The Company's estimates of the costs of settling such matters are reflected in its aggregate reserves for losses and loss expenses, and the Company does not believe that the ultimate outcome of such matters will have a material adverse effect on its financial condition or results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The common stock of the Company is traded on the New York Stock Exchange under the symbol “WRB”. All amounts have been adjusted to reflect the 3-for-2 common stock split effected on April 2, 2019.

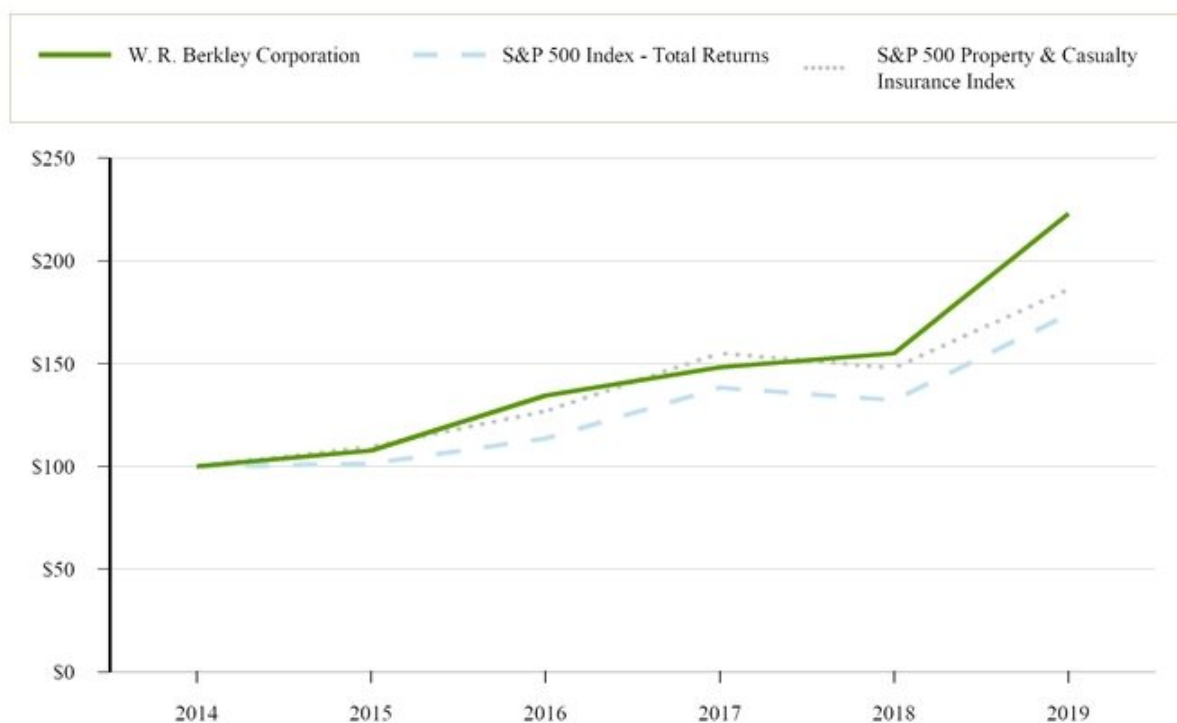
In 2019, the Board declared regular quarterly cash dividends of \$0.10 per share in the first quarter, and \$0.11 per share in each of the remaining three quarters, plus additional special dividends in the respective amounts of \$0.50 per share in the second quarter and \$0.75 per share in the fourth quarter. Subject to availability, the Board currently expects to continue such regular quarterly cash dividends.

The approximate number of record holders of the common stock on February 18, 2020 was 319.

The chart below shows a comparison of 5 year cumulative total return.

Comparison of 5 Year Cumulative Total Return

Assumes initial investment of \$100 on January 1, 2014, with dividends reinvested.



The S&P 500® Property and Casualty Insurance Index consists of Allstate Corporation, Chubb, Ltd., Cincinnati Financial Corporation, Progressive Corporation, The Travelers Companies, Inc., and W. R. Berkley Corporation (added Dec. 2019).

		2014	2015	2016	2017	2018	2019
W. R. Berkley Corporation	Cum \$	100.00	107.76	134.43	148.11	154.95	222.86
S&P 500 Index - Total Returns	Cum \$	100.00	101.38	113.51	138.29	132.22	173.84
S&P 500 Property and Casualty Insurance Index	Cum \$	100.00	109.53	126.73	155.10	147.83	186.07

Set forth below is a summary of the shares repurchased by the Company during the fourth quarter of 2019 and the remaining number of shares authorized for purchase by the Company during such period.

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that may yet be Purchased Under the Plans or Programs
October 2019	—	—	—	13,367,095
November 2019	51,163	67.77	51,163	13,315,932
December 2019	217,909	67.72	217,909	13,098,023

ITEM 6. SELECTED FINANCIAL DATA

(In thousands, except per share data)	As of and for the Year Ended December 31,				
	2019	2018	2017	2016	2015
Net premiums written	\$ 6,863,499	\$ 6,433,227	\$ 6,260,508	\$ 6,423,913	\$ 6,189,515
Net premiums earned	6,633,288	6,371,505	6,311,419	6,293,348	6,040,609
Net investment income	645,614	674,235	575,788	564,163	512,645
Net realized and unrealized gains on investments	120,703	154,488	335,858	267,005	92,324
Revenues from non-insurance businesses	406,541	372,985	326,165	390,348	421,102
Insurance service fees	92,680	117,757	134,729	138,944	139,440
Total revenues	7,902,196	7,691,651	7,684,764	7,654,184	7,206,457
Interest expense	153,409	157,185	147,297	140,896	130,946
Income before income taxes	852,920	812,094	772,770	896,438	732,030
Income tax expense	(168,935)	(163,028)	(219,433)	(292,953)	(227,923)
Noncontrolling interests	(2,041)	(8,317)	(4,243)	(1,569)	(413)
Net income to common stockholders	681,944	640,749	549,094	601,916	503,694
Data per common share:					
Net income per basic share	3.58	3.37	2.93	3.27	2.71
Net income per diluted share	3.52	3.33	2.84	3.12	2.58
Common stockholders' equity	33.12	29.72	29.69	27.76	24.87
Cash dividends declared	1.73	1.39	1.03	1.01	0.31
Weighted average shares outstanding:					
Basic	190,722	190,048	187,265	183,977	186,060
Diluted	193,521	192,395	193,527	192,830	195,284
Investments	\$ 18,473,674	\$ 17,723,089	\$ 17,450,508	\$ 16,649,792	\$ 15,351,467
Total assets	26,643,428	24,895,977	24,299,917	23,364,844	21,730,967
Reserves for losses and loss expenses	12,583,249	11,966,448	11,670,408	11,197,195	10,669,150
Senior notes and other debt	1,427,575	1,882,028	1,769,052	1,760,595	1,844,621
Subordinated debentures	1,198,704	907,491	728,218	727,630	340,320
Common stockholders' equity	6,074,939	5,437,851	5,411,344	5,047,208	4,600,246

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

W. R. Berkley Corporation is an insurance holding company that is among the largest commercial lines writers in the United States and operates worldwide in two business segments of the property and casualty business: Insurance and Reinsurance & Monoline Excess. Our decentralized structure provides us with the flexibility to respond quickly and efficiently to local or specific market conditions and to pursue specialty business niches. It also allows us to be closer to our customers in order to better understand their individual needs and risk characteristics. While providing our business units with certain operating autonomy, our structure allows us to capitalize on the benefits of economies of scale through centralized capital, investment, reinsurance and enterprise risk management, and actuarial, financial and corporate legal staff support. The Company's primary sources of revenues and earnings are its insurance operations and its investments.

An important part of our strategy is to form new operating units to capitalize on various business opportunities. Over the years, the Company has formed numerous new operating units that are focused on important parts of the economy in the U.S., including healthcare, cyber security, energy and agriculture, and on growing international markets, including the Asia-Pacific region, South America and Mexico.

The profitability of the Company's insurance business is affected primarily by the adequacy of premium rates. The ultimate adequacy of premium rates is not known with certainty at the time an insurance policy is issued because premiums are determined before claims are reported. The ultimate adequacy of premium rates is affected mainly by the severity and frequency of claims, which are influenced by many factors, including natural and other disasters, regulatory measures and court decisions that define and change the extent of coverage and the effects of economic or social inflation on the amount of compensation for injuries or losses. General insurance prices are also influenced by available insurance capacity, i.e., the level of capital employed in the industry, and the industry's willingness to deploy that capital.

The Company's profitability is also affected by its investment income and investment gains. The Company's invested assets are invested principally in fixed maturity securities. The return on fixed maturity securities is affected primarily by general interest rates, as well as the credit quality and duration of the securities. Returns available on fixed maturity investments have been at low levels for an extended period.

The Company also invests in equity securities, merger arbitrage securities, investment funds, private equity, loans and real estate related assets. The Company's investments in investment funds and its other alternative investments have experienced, and the Company expects to continue to experience, greater fluctuations in investment income.

On April 2, 2019, a 3-for-2 common stock split was paid in the form of a stock dividend to holders of record as of March 14, 2019. Shares outstanding and per share amounts in this Form 10-K reflect this 3-for-2 common stock split effected on April 2, 2019.

Commencing with the first quarter of 2019, the Company renamed the Reinsurance segment to Reinsurance & Monoline Excess, and reclassified the monoline excess business from the Insurance segment. The reclassified business includes operations that solely retain risk on an excess basis. Reclassifications have been made to the Company's prior periods financial information in this Form 10-K to conform with this presentation.

Critical Accounting Estimates

The following presents a discussion of accounting policies and estimates relating to reserves for losses and loss expenses, assumed reinsurance premiums and other-than-temporary impairments of investments. Management believes these policies and estimates are the most critical to its operations and require the most difficult, subjective and complex judgments.

Reserves for Losses and Loss Expenses. To recognize liabilities for unpaid losses, either known or unknown, insurers establish reserves, which is a balance sheet account representing estimates of future amounts needed to pay claims and related expenses with respect to insured events which have occurred. Estimates and assumptions relating to reserves for losses and loss expenses are based on complex and subjective judgments, often including the interplay of specific uncertainties with related accounting and actuarial measurements. Such estimates are also susceptible to change as significant periods of time may elapse between the occurrence of an insured loss, the report of the loss to the insurer, the ultimate determination of the cost of the loss and the insurer's payment of that loss.

In general, when a claim is reported, claims personnel establish a "case reserve" for the estimated amount of the ultimate payment based upon known information about the claim at that time. The estimate represents an informed judgment based on

general reserving practices and reflects the experience and knowledge of the claims personnel regarding the nature and value of the specific type of claim. Reserves are also established on an aggregate basis to provide for losses incurred but not reported (“IBNR”) to the insurer, potential inadequacy of case reserves and the estimated expenses of settling claims, including legal and other fees and general expenses of administering the claims adjustment process. Reserves are established based upon the then current legal interpretation of coverage provided.

In examining reserve adequacy, several factors are considered in estimating the ultimate economic value of losses. These factors include, among other things, historical data, legal developments, changes in social attitudes and economic conditions, including the effects of inflation. The actuarial process relies on the basic assumption that past experience, adjusted judgmentally for the effects of current developments and anticipated trends, is an appropriate basis for predicting future outcomes. Reserve amounts are based on management’s informed estimates and judgments using currently available data. As additional experience and other data become available and are reviewed, these estimates and judgments may be revised. This may result in reserve increases or decreases that would be reflected in our results in periods in which such estimates and assumptions are changed.

Reserves do not represent a certain calculation of liability. Rather, reserves represent an estimate of what management expects the ultimate settlement and claim administration will cost. While the methods for establishing reserves are well tested over time, the major assumptions about anticipated loss emergence patterns are subject to uncertainty. These estimates, which generally involve actuarial projections, are based on management’s assessment of facts and circumstances then known, as well as estimates of trends in claims severity and frequency, judicial theories of liability and other factors, including the actions of third parties which are beyond the Company’s control. These variables are affected by external and internal events, such as inflation and economic volatility, judicial and litigation trends, reinsurance coverage, legislative changes and claim handling and reserving practices, which make it more difficult to accurately predict claim costs. 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. Because setting reserves is inherently uncertain, the Company cannot provide assurance that its current reserves will prove adequate in light of subsequent events.

Loss reserves included in the Company’s financial statements represent management’s best estimates based upon an actuarially derived point estimate and other considerations. The Company uses a variety of actuarial techniques and methods to derive an actuarial point estimate for each operating unit. These methods include paid loss development, incurred loss development, paid and incurred Bornhuetter-Ferguson methods and frequency and severity methods. In circumstances where one actuarial method is considered more credible than the others, that method is used to set the point estimate. For example, the paid loss and incurred loss development methods rely on historical paid and incurred loss data. For new lines of business, where there is insufficient history of paid and incurred claims data, or in circumstances where there have been significant changes in claim practices, the paid and incurred loss development methods would be less credible than other actuarial methods. The actuarial point estimate may also be based on a judgmental weighting of estimates produced from each of the methods considered. Industry loss experience is used to supplement the Company’s own data in selecting “tail factors” and in areas where the Company’s own data is limited. The actuarial data is analyzed by line of business, coverage and accident or policy year, as appropriate, for each operating unit.

The establishment of the actuarially derived loss reserve point estimate also includes consideration of qualitative factors that may affect the ultimate losses. These qualitative considerations include, among others, the impact of re-underwriting initiatives, changes in the mix of business, changes in distribution sources and changes in policy terms and conditions. Examples of changes in terms and conditions that can have a significant impact on reserve levels are the use of aggregate policy limits, the expansion of coverage exclusions, whether or not defense costs are within policy limits, and changes in deductibles and attachment points.

The key assumptions used to arrive at the best estimate of loss reserves are the expected loss ratios, rate of loss cost inflation, and reported and paid loss emergence patterns. Expected loss ratios represent management’s expectation of losses at the time the business is priced and 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. Expected loss ratios are estimated for each key line of business within each operating unit. Expected loss cost inflation is particularly important for the long-tail lines, such as excess casualty, and claims with a high medical component, such as workers’ compensation. Reported and paid loss emergence patterns are used to project current reported or paid loss amounts to their ultimate settlement value. Loss development factors are based on the historical emergence patterns of paid and incurred losses, and are derived from the Company’s own experience and industry data. The paid loss emergence pattern is also significant to excess and assumed workers’ compensation reserves because those reserves are discounted to their estimated present value based upon such estimated payout patterns. Management believes the estimates and assumptions it makes in the reserving process provide the best estimate of the ultimate cost of settling claims and

related expenses with respect to insured events which have occurred; however, different assumptions and variables could lead to significantly different reserve estimates.

Loss frequency and severity are measures of loss activity that are considered in determining the key assumptions described in our discussion of loss and loss expense reserves, including expected loss ratios, rate of loss cost inflation and reported and paid loss emergence patterns. 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 and changes in economic activity 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 the Company. The length of the loss reporting lag affects our ability to accurately predict loss frequency (loss frequencies are more predictable for lines with short reporting lags) as well as the amount of reserves needed for incurred but not reported losses (less IBNR is required for lines with short reporting lags). As a result, loss reserves for lines with short reporting lags are likely to have less variation from initial loss estimates. For lines with short reporting lags, which include commercial automobile, primary workers' compensation, other liability (claims-made) and property business, the key assumption is the loss emergence pattern used to project ultimate loss estimates from known losses paid or reported to date. For lines of business with long reporting lags, which include other liability (occurrence), products liability, excess workers' compensation and liability reinsurance, the key assumption is the expected loss ratio since there is often little paid or incurred loss data to consider. Historically, the Company has experienced less variation from its initial loss estimates for lines of businesses with short reporting lags than for lines of business with long reporting lags.

The key assumptions used in calculating the most recent estimate of the loss reserves are reviewed each quarter and adjusted, to the extent necessary, to reflect the latest reported loss data, current trends and other factors observed. If the actual level of loss frequency and severity are higher or lower than expected, the ultimate losses will be different than management's estimate. The following table reflects the impact of changes (which could be favorable or unfavorable) in frequency and severity, relative to our assumptions, on our loss estimate for claims occurring in 2019:

(In thousands)		Frequency (+/-)		
Severity (+/-)		1%	5%	10%
1%		\$ 81,566	\$ 245,508	\$ 450,437
5%		245,508	415,944	628,988
10%		450,437	628,988	852,178

Our net reserves for losses and loss expenses of approximately \$10.7 billion as of December 31, 2019 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. The impact of such changes would likely be manifested gradually over the course of many years, as the magnitude of the changes became evident.

Approximately \$2.5 billion, or 23%, of the Company's net loss reserves as of December 31, 2019 relate to the Reinsurance & Monoline Excess segment. There is a higher degree of uncertainty and greater variability regarding estimates of excess workers' compensation and assumed reinsurance loss reserves. In the case of excess workers' compensation, our policies generally attach at \$1 million or higher. The claims which reach our layer therefore tend to involve the most serious injuries and many remain open for the lifetime of the claimant, which extends the claim settlement tail. These claims also occur less frequently but tend to be larger than primary claims, which increases claim variability. In the case of assumed reinsurance our loss reserve estimates are based, in part, upon information received from ceding companies. If information received from ceding companies is not timely or correct, the Company's estimate of ultimate losses may not be accurate. Furthermore, due to delayed reporting of claim information by ceding companies, the claim settlement tail for assumed reinsurance is also extended. Management considers the impact of delayed reporting and the extended tail in its selection of loss development factors for these lines of business.

Information received from ceding companies is used to set initial expected loss ratios, to establish case reserves and to estimate reserves for incurred but not reported losses on assumed reinsurance business. This information, which is generally provided through reinsurance intermediaries, is gathered through the underwriting process and from periodic claim reports and other correspondence with ceding companies. The Company performs underwriting and claim audits of selected ceding companies to determine the accuracy and completeness of information provided to the Company. The information received from the ceding companies is supplemented by the Company's own loss development experience with similar lines of business as well as industry loss trends and loss development benchmarks.

Following is a summary of the Company's reserves for losses and loss expenses by business segment as of December 31, 2019 and 2018:

(In thousands)	2019	2018
Insurance	\$ 8,193,381	\$ 7,727,447
Reinsurance & Monoline Excess	2,504,617	2,521,436
Net reserves for losses and loss expenses	10,697,998	10,248,883
Ceded reserves for losses and loss expenses	1,885,251	1,717,565
Gross reserves for losses and loss expenses	\$ 12,583,249	\$ 11,966,448

Following is a summary of the Company's net reserves for losses and loss expenses by major line of business as of December 31, 2019 and 2018:

(In thousands)	Reported Case Reserves	Incurred But Not Reported	Total
December 31, 2019			
Other liability	\$ 1,421,378	\$ 2,522,957	\$ 3,944,335
Workers' compensation (1)	918,619	964,102	1,882,721
Professional liability	399,411	713,433	1,112,844
Commercial automobile	412,036	300,339	712,375
Short-tail lines (2)	271,192	269,914	541,106
Total Insurance	3,422,636	4,770,745	8,193,381
Reinsurance & Monoline Excess (1)	1,469,363	1,035,254	2,504,617
Total	\$ 4,891,999	\$ 5,805,999	\$ 10,697,998
December 31, 2018			
Other liability	\$ 1,307,068	\$ 2,329,659	\$ 3,636,727
Workers' compensation (1)	962,664	955,711	1,918,375
Professional liability	306,018	659,596	965,614
Commercial automobile	365,253	290,217	655,470
Short-tail lines (2)	294,122	257,139	551,261
Total Insurance	3,235,125	4,492,322	7,727,447
Reinsurance & Monoline Excess (1) (3)	1,479,604	1,041,832	2,521,436
Total	\$ 4,714,729	\$ 5,534,154	\$ 10,248,883

(1) Reserves for excess and assumed workers' compensation business are net of an aggregate net discount of \$530 million and \$563 million as of December 31, 2019 and 2018, respectively.

(2) Short-tail lines include commercial multi-peril (non-liability), inland marine, accident and health, fidelity and surety, boiler and machinery and other lines.

(3) Reinsurance & Monoline Excess includes property and casualty reinsurance as well as operations that solely retain risk on an excess basis.

The Company evaluates reserves for losses and loss expenses on a quarterly basis. Changes in estimates of prior year losses are reported when such changes are made. The changes in prior year loss reserve estimates are generally the result of ongoing analysis of recent loss development trends. Original estimates are increased or decreased as additional information becomes known regarding individual claims and aggregate claim trends.

Certain of the Company's insurance and reinsurance contracts are retrospectively rated, whereby the Company collects more or less premiums based on the level of loss activity. For those contracts, changes in loss and loss expenses for prior years may be fully or partially offset by additional or return premiums.

Net prior year development (i.e., the sum of prior year reserve changes and prior year earned premiums changes) for each of the last three years ended December 31, are as follows:

(In thousands)	2019	2018	2017
(Increase) decrease in prior year loss reserves	\$ (34,079)	\$ (6,831)	\$ 5,165
Increase in prior year earned premiums	53,511	45,638	32,162
Net favorable prior year development	\$ 19,432	\$ 38,807	\$ 37,327

Favorable prior year development (net of additional and return premiums) was \$19 million in 2019.

Insurance - Reserves for the Insurance segment developed favorably by \$21 million in 2019 (net of additional and return premiums). This overall favorable development resulted from more significant favorable development on workers' compensation business, which was largely offset by unfavorable development on professional liability and general liability business.

For workers' compensation, the favorable development was spread across many accident years, including prior to 2010, but was most significant in accident years 2014 through 2018, and particularly 2017 and 2018. The favorable workers' compensation development reflects a continuation during 2019 of the benign loss cost trends experienced during recent years, particularly the favorable claim frequency trends (i.e., number of reported claims per unit of exposure). The long term trend of declining workers' compensation frequency can be attributable to improved workplace safety. Loss severity trends were also aided by our continued investment in claims handling initiatives such as medical case management services and vendor savings through usage of preferred provider networks and pharmacy benefit managers. Our initial loss ratio "picks" for this line of business over the past few accident years have contemplated an increase in loss cost trends and reflect decreasing premium rates in the marketplace; reported workers' compensation losses in 2019 continued to be below our expectations at most of our operating units, and were below the assumptions underlying our initial loss ratio picks and our previous reserve estimates.

For professional liability business, the unfavorable development was driven mainly by an increase in the number of large losses reported in the lawyers professional liability and directors and officers ("D&O") liability lines of business. Many of the lawyers large losses involved claims made against insured law firms relating to work performed on matters stemming from the 2008 financial crisis. These claims affected mainly accident years 2013 through 2016. In addition, for both of these lines of business, we have seen evidence of social inflation in the form of higher jury awards on cases which go to trial, and corresponding higher demands from plaintiffs and higher values required to reach settlement on cases which do not go to trial. The unfavorable development for D&O affected mainly accident years 2014 through 2017.

For general liability business, most of the unfavorable development emanated from our excess and surplus lines (E&S) businesses, and was driven by an increase in the number of large losses reported. Many of these large losses were from construction and contracting classes of business, which have also been impacted by social inflation. The general liability unfavorable development impacted mainly accident years 2015 through 2018.

Reinsurance & Monoline Excess - Reserves for the Reinsurance & Monoline Excess segment developed unfavorably by \$2 million in 2019. The unfavorable development in the segment was driven by non-proportional assumed liability business in both the U.S. and U.K., and was largely offset by favorable development on excess workers' compensation business. The unfavorable non-proportional assumed liability development was concentrated in accident years 2015 through 2018, and included an adjustment for the Ogden discount rate in the U.K.

Favorable prior year development (net of additional and return premiums) was \$39 million in 2018.

Insurance - Reserves for the Insurance segment developed favorably by \$19 million in 2018. The favorable development was primarily attributable to workers' compensation business, and was partially offset by unfavorable development for professional liability business.

For workers' compensation, the favorable development was spread across many accident years, but was most significant in accident years 2015 through 2017. The favorable workers' compensation development reflects a continuation during 2018 of the benign loss cost trends experienced during recent years, particularly the favorable claim frequency trends (i.e., number of reported claims per unit of exposure). The long term trend of declining workers' compensation frequency can be attributable to improved workplace safety. Loss severity trends were also aided by our continued investment in claims handling initiatives such as medical case management services and vendor savings through usage of preferred provider networks. Reported workers' compensation losses in 2018 continued to be below our expectations at most of our operating units, and were below the assumptions underlying our previous reserve estimates.

For professional liability business, adverse development was primarily related to unexpected large directors and officers (“D&O”) liability losses at one of our U.S. operating units, as well as lawyers professional liability losses at another operating unit. The adverse development stemmed primarily from accident years 2015 and 2016, and was driven by a higher frequency of large losses than we had experienced in previous years.

Reinsurance & Monoline Excess - Reserves for the Reinsurance & Monoline Excess segment developed favorably by \$20 million in 2018. The favorable development was primarily due to excess workers’ compensation business, and was spread across many accident years, including years prior to 2009. This favorable excess workers’ compensation development was partially offset by unfavorable development on U.S. casualty facultative assumed business from accident years 2009 and prior related to construction projects.

Favorable prior year development (net of additional and return premiums) was \$37 million in 2017.

Insurance - Reserves for the Insurance segment developed favorably by \$30 million in 2017. The favorable development was primarily attributable to workers’ compensation business, and was partially offset by unfavorable development for professional liability business.

For workers’ compensation, the favorable development was spread across many accident years but was most significant in accident years 2014 through 2016. The favorable workers’ compensation development reflects a continuation during 2017 of the benign loss cost trends experienced in recent years, particularly the favorable claim frequency trends (i.e., number of reported claims per unit of exposure). Reported workers’ compensation losses in 2017 continued to be below our expectations at most of our operating units, and were below the assumptions underlying our previous reserve estimates. The favorable severity trends were also impacted by our continued investment in medical case management services and the higher usage of preferred provider networks. The long term trend of declining workers’ compensation frequency can be attributed to improved workplace safety.

For professional liability business, adverse development was primarily related to unexpected large directors and officers (“D&O”) liability losses at one of our U.S. operating units, and large professional indemnity and D&O losses in the U.K. The adverse development stemmed mainly from accident years 2013 through 2016 in the U.S. and 2011 through 2016 in the U.K.

Reinsurance & Monoline Excess - Reserves for the Reinsurance & Monoline Excess segment developed favorably by \$7 million in 2017. This favorable development was primarily due to excess workers’ compensation business, and was spread across many accident years, including years prior to 2008. The favorable excess workers’ compensation development resulted due to the same causes discussed above for workers’ compensation in the Insurance segment.

The favorable excess workers’ compensation development was largely offset by adverse development on U.K. assumed casualty reinsurance, as well as on U.S. facultative casualty excess of loss business. The adverse development on the U.K. casualty reinsurance was due to reserve strengthening associated with claims impacted by the change in the Ogden discount rate in the U.K. The Ogden rate is the discount rate used to calculate lump-sum bodily injury payouts in the U.K., and was reduced by the U.K. Ministry of Justice from +2.5% to -0.75%; the adverse development mostly related to U.K. motor bodily injury claims which we reinsured on an excess of loss basis in accident years 2012 through 2016. The adverse development on U.S. facultative casualty business was due to construction related risks in accident years 2008 and prior.

Reserve Discount - The Company discounts its liabilities for certain workers’ compensation reserves. The amount of workers’ compensation reserves that were discounted was \$1,731 million and \$1,793 million at December 31, 2019 and 2018, respectively. The aggregate net discount for those reserves, after reflecting the effects of ceded reinsurance, was \$530 million and \$563 million at December 31, 2019 and 2018, respectively. At December 31, 2019, discount rates by year ranged from 2.0% to 6.5%, with a weighted average discount rate of 3.7%.

Substantially all discounted workers’ compensation reserves (97% of total discounted reserves at December 31, 2019) are excess workers’ compensation reserves. In order to properly match loss expenses with income earned on investment securities supporting the liabilities, reserves for excess workers’ compensation business are discounted using risk-free discount rates determined by reference to the U.S. Treasury yield curve. These rates are determined annually based on the weighted average rate for the period. Once established, no adjustments are made to the discount rate for that period, and any increases or decreases in loss reserves in subsequent years are discounted at the same rate, without regard to when any such adjustments are recognized. The expected loss and loss expense payout patterns subject to discounting are derived from the Company’s loss payout experience.

The Company also discounts reserves for certain other long-duration workers’ compensation reserves (representing approximately 3% of total discounted reserves at December 31, 2019), including reserves for quota share reinsurance and reserves related to losses regarding occupational lung disease. These reserves are discounted at statutory rates prescribed or permitted by the Department of Insurance of the State of Delaware.

Assumed Reinsurance Premiums. The Company estimates the amount of assumed reinsurance premiums that it will receive under treaty reinsurance agreements at the inception of the contracts. These premium estimates are revised as the actual amount of assumed premiums is reported to the Company by the ceding companies. As estimates of assumed premiums are made or revised, the related amount of earned premiums, commissions and incurred losses associated with those premiums are recorded. Estimated assumed premiums receivable were approximately \$43 million and \$41 million at December 31, 2019 and 2018, respectively. The assumed premium estimates are based upon terms set forth in reinsurance agreements, information received from ceding companies during the underwriting and negotiation of agreements, reports received from ceding companies and discussions and correspondence with reinsurance intermediaries. The Company also considers its own view of market conditions, economic trends and experience with similar lines of business. These premium estimates represent management's best estimate of the ultimate amount of premiums to be received under its assumed reinsurance agreements.

Other-Than-Temporary Impairments (OTTI) of Investments. The cost of securities is adjusted where appropriate to include a provision for decline in value which is considered to be other-than-temporary. An other-than-temporary decline is considered to occur in investments where there has been a sustained reduction in fair value and where the Company does not expect the fair value to recover prior to the time of sale or maturity.

The Company classifies its fixed maturity securities by credit rating, primarily based on ratings assigned by credit rating agencies. For purposes of classifying securities with different ratings, the Company uses the average of the credit ratings assigned, unless in limited situations the Company's own analysis indicates an internal rating is more appropriate. Securities that are not rated by a rating agency are evaluated and classified by the Company on a case-by-case basis.

Fixed Maturity Securities – For securities that we intend to sell or, more likely than not, would be required to sell, a decline in value below amortized cost is considered to be OTTI. The amount of OTTI is equal to the difference between amortized cost and fair value at the balance sheet date. For securities that we do not intend to sell or expect to be required to sell, a decline in value below amortized cost is considered to be an OTTI if we do not expect to recover the entire amortized cost basis of a security (i.e., the present value of cash flows expected to be collected is less than the amortized cost basis of the security).

The portion of the decline in value considered to be a credit loss (i.e., the difference between the present value of cash flows expected to be collected and the amortized cost basis of the security) is recognized in earnings. The portion of the decline in value not considered to be a credit loss (i.e., the difference in the present value of cash flows expected to be collected and the fair value of the security) is recognized in other comprehensive income.

Impairment assessments for structured securities, including mortgage-backed securities and asset-backed securities, collateralized debt obligations and corporate debt, are generally evaluated based on the performance of the underlying collateral under various economic and default scenarios that may involve subjective judgments and estimates by management. Modeling these securities involves various factors, such as projected default rates, the nature and realizable value of the collateral, if any, the ability of the issuer to make scheduled payments, historical performance and other relevant economic and performance factors. If an OTTI determination is made, a discounted cash flow analysis is used to ascertain the amount of the credit impairment.

The following table provides a summary of fixed maturity securities in an unrealized loss position as of December 31, 2019:

(\$ in thousands)	Number of Securities	Aggregate Fair Value	Unrealized Loss
Unrealized loss less than 20% of amortized cost	480	\$ 3,259,888	\$ 41,541
Unrealized loss of 20% or greater of amortized cost:			
Less than twelve months	16	21,171	32,311
Twelve months and longer	13	60,173	62,534
Total	509	\$ 3,341,232	\$ 136,386

A summary of the Company's non-investment grade fixed maturity securities that were in an unrealized loss position at December 31, 2019 is presented in the table below.

(\$ in thousands)	Number of Securities	Aggregate Fair Value	Unrealized Loss
Foreign government	21	\$ 79,747	\$ 92,369
Corporate	14	65,710	4,319
Asset-backed securities	5	437	113
Mortgage-backed securities	5	954	17
Total	45	\$ 146,848	\$ 96,818

The Company has evaluated its fixed maturity securities in an unrealized loss position and believes the unrealized loss is due primarily to temporary market and sector-related factors rather than to issuer-specific factors. None of these securities are delinquent or in default under financial covenants. Based on its assessment of these issuers, the Company expects them to continue to meet their contractual payment obligations as they become due and does not consider any of these securities to be OTTI. For the year ended December 31, 2019, there were no OTTI for fixed maturity securities recognized in earnings. For the year ended December 31, 2018, there were \$6 million of OTTI recognized on fixed maturity securities.

Loans Receivable – The Company monitors the performance of its loans receivable, including current market conditions for each loan and the ability to collect principal and interest. For loans where the Company determines it is probable that the contractual terms will not be met, an analysis is performed and a valuation reserve is established, if necessary, with a charge to earnings. Loans receivable are reported net of a valuation reserve of \$2 million for December 31, 2019 and \$3 million for December 31, 2018.

The Company monitors the performance of its loans receivable and assesses the ability of each borrower to pay principal and interest based upon loan structure, underlying property values, cash flow and related financial and operating performance of the property and market conditions. Loans receivable with a potential for default are further assessed using discounted cash flow analysis and comparable cost and sales methodologies, if appropriate.

Fair Value Measurements. The Company's fixed maturity available for sale securities, equity securities, and its trading account securities are carried at fair value. Fair value is defined as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date". The Company utilizes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for similar assets in active markets. Level 3 inputs are unobservable inputs for the asset or liability. Unobservable inputs may only be used to measure fair value to the extent that observable inputs are not available. The fair value of the vast majority of the Company's portfolio is based on observable data (other than quoted prices) and, accordingly, is classified as Level 2.

In classifying particular financial securities in the fair value hierarchy, the Company uses its judgment to determine whether the market for a security is active and whether significant pricing inputs are observable. The Company determines the existence of an active market by assessing whether transactions occur with sufficient frequency and volume to provide reliable pricing information. The Company determines whether inputs are observable based on the use of such information by pricing services and external investment managers, the uninterrupted availability of such inputs, the need to make significant adjustments to such inputs and the volatility of such inputs over time. If the market for a security is determined to be inactive or if significant inputs used to price a security are determined to be unobservable, the security is categorized in Level 3 of the fair value hierarchy.

Because many fixed maturity securities do not trade on a daily basis, the Company utilizes pricing models and processes which may include benchmark curves, benchmarking of like securities, sector groupings and matrix pricing. Market inputs used to evaluate securities include benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers and reference data. Quoted prices are often unavailable for recently issued securities that are infrequently traded or securities that are only traded in private transactions. For publicly traded securities for which quoted prices are unavailable, the Company determines fair value based on independent broker quotations and other observable market data. For securities traded only in private negotiations, the Company determines fair value based primarily on the cost of such securities, which is adjusted to reflect prices of recent placements of securities of the same issuer, financial data, projections and business developments of the issuer and other relevant information.

The following is a summary of pricing sources for the Company's fixed maturity securities available for sale as of December 31, 2019:

(In thousands)	Carrying Value	Percent of Total
Pricing source:		
Independent pricing services	\$ 13,812,689	98.0%
Syndicate manager	33,716	0.2
Directly by the Company based on:		
Observable data	255,873	1.8
Total	<u>\$ 14,102,278</u>	<u>100.0%</u>

Independent pricing services - Substantially all of the Company's fixed maturity securities available for sale were priced by independent pricing services (generally one U.S. pricing service plus additional pricing services with respect to a limited number of foreign securities held by the Company). The prices provided by the independent pricing services are generally based on observable market data in active markets (e.g., broker quotes and prices observed for comparable securities). The determination of whether markets are active or inactive is based upon the volume and level of activity for a particular asset class. The Company reviews the prices provided by pricing services for reasonableness based upon current trading levels for similar securities. If the prices appear unusual to the Company, they are re-examined and the value is either confirmed or revised. In addition, the Company periodically performs independent price tests of a sample of securities to ensure proper valuation and to verify our understanding of how securities are priced. As of December 31, 2019, the Company did not make any adjustments to the prices provided by the pricing services. Based upon the Company's review of the methodologies used by the independent pricing services, these securities were classified as Level 2.

Syndicate manager - The Company has a 15% participation in a Lloyd's syndicate, and the Company's share of the securities owned by the syndicate is priced by the syndicate's manager. The majority of the securities are liquid, short duration fixed maturity securities. The Company reviews the syndicate manager's pricing methodology and audited financial statements and holds discussions with the syndicate manager as necessary to confirm its understanding and agreement with security prices. Based upon the Company's review of the methodologies used by the syndicate manager, these securities were classified as Level 2.

Observable data - If independent pricing is not available, the Company prices the securities directly. Prices are based on observable market data where available, including current trading levels for similar securities and non-binding quotations from brokers. The Company generally requests two or more quotes. If more than one quote is received, the Company sets a price within the range of quotes received based on its assessment of the credibility of the quote and its own evaluation of the security. The Company generally does not adjust quotes obtained from brokers. Since these securities were priced based on observable data, they were classified as Level 2.

Cash flow model - If the above methodologies are not available, the Company prices securities using a discounted cash flow model based upon assumptions as to prevailing credit spreads, interest rates and interest rate volatility, time to maturity

and subordination levels. Discount rates are adjusted to reflect illiquidity where appropriate. These securities were classified as Level 3.

Results of Operations for the Years Ended December 31, 2019 and 2018

Business Segment Results

Following is a summary of gross and net premiums written, net premiums earned, loss ratios (losses and loss expenses incurred expressed as a percentage of net premiums earned), expense ratios (underwriting expenses expressed as a percentage of net premiums earned) and GAAP combined ratios (sum of loss ratio and expense ratio) for each of our business segments for the years ended December 31, 2019 and 2018. The GAAP combined ratio represents a measure of underwriting profitability, excluding investment income. A GAAP combined ratio in excess of 100 indicates an underwriting loss; a number below 100 indicates an underwriting profit.

(In thousands)	2019		2018	
Insurance				
Gross premiums written	\$	7,398,573	\$	6,980,202
Net premiums written		6,086,009		5,791,905
Net premiums earned		5,919,819		5,702,073
Loss ratio		62.4%		62.5%
Expense ratio		31.1		32.6
GAAP combined ratio		93.5		95.1
Reinsurance & Monoline Excess				
Gross premiums written	\$	863,646	\$	722,292
Net premiums written		777,490		641,322
Net premiums earned		713,469		669,432
Loss ratio		61.5%		61.0%
Expense ratio		35.0		35.8
GAAP combined ratio		96.5		96.8
Consolidated				
Gross premiums written	\$	8,262,219	\$	7,702,494
Net premiums written		6,863,499		6,433,227
Net premiums earned		6,633,288		6,371,505
Loss ratio		62.3%		62.4%
Expense ratio		31.5		32.9
GAAP combined ratio		93.8		95.3

Net Income to Common Stockholders. The following table presents the Company's net income to common stockholders and net income per diluted share for the years ended December 31, 2019 and 2018.

(In thousands, except per share data)	2019		2018	
Net income to common stockholders	\$	681,944	\$	640,749
Weighted average diluted shares		193,521		192,395
Net income per diluted share	\$	3.52	\$	3.33

The Company reported net income of \$682 million in 2019 compared to \$641 million in 2018. The 6% increase in net income was primarily due to an after-tax increase in underwriting income of \$91 million, an increase in income from minority interest of \$6 million, an after-tax decrease in interest expense of \$3 million, a \$3 million increase in after-tax foreign currency gains, a \$2 million decrease in tax expense, and an after-tax increase in other income of \$2 million, partially offset by a decrease in after-tax net investment gains of \$27 million, an after-tax decrease in net investment income of \$23 million mainly driven by investment funds, an after-tax increase in corporate expenses of \$6 million, an after-tax reduction in insurance service fee income of \$6 million, and an after-tax decrease in income from non-insurance businesses of \$4 million. The number of weighted average diluted shares slightly increased due to shares granted through an equity compensation based plan.

Premiums. Gross premiums written were \$8,262 million in 2019, an increase of 7% from \$7,702 million in 2018. The increase was due to the growth in the Insurance segment of \$418 million and \$142 million in the Reinsurance & Monoline Excess segment. Approximately 79% of policies expiring in 2019 were renewed, and 78% of policies expiring in 2018 were renewed.

Average renewal premium rates for insurance and facultative reinsurance increased 4.8% in 2019 and 2.5% in 2018, when adjusted for changes in exposures. Average renewal premium rates for insurance and facultative reinsurance excluding workers' compensation increased 6.9% in 2019 and 4.0% in 2018, when adjusted for changes in exposures.

A summary of gross premiums written in 2019 compared with 2018 by line of business within each business segment follows:

- Insurance gross premiums increased 6% to \$7,398 million in 2019 from \$6,980 million in 2018. Gross premiums increased \$250 million (11%) for other liability, \$146 million (17%) for professional liability, \$96 million (6%) for short-tail lines and \$50 million (6%) for commercial auto, and decreased \$124 million (9%) for workers' compensation.
- Reinsurance & Monoline Excess gross premiums increased 20% to \$864 million in 2019 from \$722 million in 2018. Gross premiums written increased \$99 million (26%) for casualty lines, \$34 million (21%) for property lines, and \$9 million (5%) for monoline excess.

Net premiums written were \$6,863 million in 2019, an increase of 7% from \$6,433 million in 2018. Ceded reinsurance premiums as a percentage of gross written premiums were 17% in both 2019 and 2018.

Premiums earned increased 4% to \$6,633 million in 2019 from \$6,372 million in 2018. Insurance premiums (including the impact of rate changes) are generally earned evenly over the policy term, and accordingly recent rate increases will be earned over the upcoming quarters. Premiums earned in 2019 are related to business written during both 2019 and 2018. Audit premiums were \$199 million in 2019 compared with \$192 million in 2018.

Net Investment Income. Following is a summary of net investment income for the years ended December 31, 2019 and 2018:

(In thousands)	Amount		Average Annualized Yield	
	2019	2018	2019	2018
Fixed maturity securities, including cash and cash equivalents and loans receivable	\$ 517,925	\$ 519,269	3.4%	3.6%
Investment funds	69,194	109,349	5.2	8.8
Arbitrage trading account	34,585	28,157	7.8	4.7
Real estate	24,218	18,591	1.2	1.0
Equity securities	5,439	3,230	2.0	1.4
Gross investment income	651,361	678,596	3.4	3.7
Investment expenses	(5,747)	(4,361)	—	—
Total	\$ 645,614	\$ 674,235	3.4%	3.7%

Net investment income decreased 4% to \$646 million in 2019 from \$674 million in 2018 primarily due to a \$40 million decrease in investment funds, as well as a decrease in income from fixed maturity securities of \$1 million and an increase in investment expenses of \$1 million, partially offset by a \$6 million increase in arbitrage trading account, an increase in real estate of \$6 million, and a \$2 million increase in equity securities. Investment funds are reported on a one quarter lag. The average annualized yield for fixed maturity securities was 3.4% in 2019 and 3.6% in 2018; accordingly, the decrease in fixed maturity securities income was mainly the result of lower interest rates. The effective duration of the fixed maturity portfolio was 2.8 years at both December 31, 2019 and 2018. The Company has maintained a shortened duration of its fixed maturity security portfolio. This has reduced the potential impact of mark-to-market adjustments on the portfolio and positioned the Company to react quickly to changes in the environment. Average invested assets, at cost (including cash and cash equivalents), were \$19.1 billion in 2019 and \$18.4 billion in 2018.

Insurance Service Fees. The Company earns fees from an insurance distribution business, a third-party administrator, and as a servicing carrier of workers' compensation assigned risk plans for certain states. Insurance service fees were \$93 million in 2019 and \$118 million in 2018. The decrease is primarily due to the sale of a third party administration business in the third quarter of 2018 and a reduction of assigned risk plan business.

Net Realized and Unrealized Gains on Investments. The Company buys and sells securities and other investment assets on a regular basis in order to maximize its total return on investments. Decisions to sell securities and other investment assets are based on management's view of the underlying fundamentals of specific investments as well as management's expectations regarding interest rates, credit spreads, currency values and general economic conditions. Effective January 1, 2018, the Company adopted accounting guidance that requires all equity investments with readily determinable fair values to be

measured at fair value with changes in the fair value recognized through net income (other than those equity securities accounted for under the equity method of accounting or those that result in consolidation of the investee). Net realized and unrealized gains on investments were \$121 million in 2019 compared with \$154 million in 2018. In 2019, the gains reflected net realized gains on investment sales of \$36 million and increased by a change in unrealized gains on equity securities of \$85 million. In 2018, the gains reflected net realized gains on investment sales of \$480 million reduced by a change in unrealized gains on equity securities of \$320 million as well as \$6 million in OTTI.

Other-Than-Temporary Impairments. The cost of securities is adjusted when appropriate to include a provision for a decline in value that is considered to be other-than-temporary. There were no other-than-temporary impairments in 2019 and \$6 million in 2018.

Revenues from Non-Insurance Businesses. Revenues from non-insurance businesses were derived from businesses engaged in the distribution of promotional merchandise, world-wide textile solutions, and aviation-related businesses that provide services to aviation markets, including (i) the distribution, manufacturing, repair and overhaul of aircraft parts and components, (ii) the sale of new and used aircraft, and (iii) avionics, fuel, maintenance, storage and charter services. Revenues from non-insurance businesses increased to \$407 million in 2019 from \$373 million in 2018, primarily due to growth in revenues from the aviation-related businesses and the purchase of a promotional merchandise business in the second half of 2018.

Losses and Loss Expenses. Losses and loss expenses increased to \$4,131 million in 2019 from \$3,975 million in 2018. The consolidated loss ratio was 62.3% in 2019 and 62.4% in 2018. Catastrophe losses, net of reinsurance recoveries and reinstatement premiums, were \$90 million in 2019 compared with \$105 million in 2018. Favorable prior year reserve development (net of premium offsets) was \$19 million in 2019 compared with \$39 million in 2018. The loss ratio excluding catastrophe losses and prior year reserve development decreased 0.1 points to 61.2% in 2019 from 61.3% in 2018.

A summary of loss ratios in 2019 compared with 2018 by business segment follows:

- **Insurance** - The loss ratio of 62.4% in 2019 was 0.1 points lower than the loss ratio of 62.5% in 2018. Catastrophe losses were \$68 million in 2019 compared with \$76 million in 2018. Favorable prior year reserve development was \$21 million in 2019 compared with \$19 million in 2018. The loss ratio excluding catastrophe losses and prior year reserve development increased 0.1 points to 61.6% in 2019 from 61.5% in 2018.
- **Reinsurance & Monoline Excess** - The loss ratio of 61.5% in 2019 was 0.5 points higher than the loss ratio of 61.0% in 2018. Catastrophe losses were \$22 million in 2019 compared with \$30 million in 2018. Adverse prior year reserve development was \$2 million in 2019 compared with favorable prior year reserve development of \$20 million in 2018. The loss ratio excluding catastrophe losses and prior year reserve development decreased 1.5 points to 58.1% in 2019 from 59.6% in 2018.

Other Operating Costs and Expenses. Following is a summary of other operating costs and expenses:

(In thousands)	2019	2018
Policy acquisition and insurance operating expenses	\$ 2,090,301	\$ 2,098,881
Insurance service expenses	101,317	118,357
Net foreign currency gains	(30,715)	(27,067)
Other costs and expenses	201,179	193,050
Total	\$ 2,362,082	\$ 2,383,221

Policy acquisition and insurance operating expenses are comprised of commissions paid to agents and brokers, premium taxes and other assessments and internal underwriting costs. Policy acquisition and insurance operating expenses decreased less than 1% and net premiums earned increased 4% from 2018. The expense ratio (policy acquisition and insurance operating expenses expressed as a percentage of premiums earned) was 31.5% in 2019 and 32.9% in 2018. The improvement is primarily attributable to higher net premiums earned and lower expenses.

Service expenses, which represent the costs associated with the fee-based businesses, decreased 14% to \$101 million in 2019 from \$118 million in 2018. The decrease is primarily due to the sale of a third party administration business in the third quarter of 2018 and a reduction of assigned risk plan business.

Net foreign currency (gains) losses result from transactions denominated in a currency other than an operating unit's functional currency. Net foreign currency gains were \$31 million in 2019 compared to gains of \$27 million in 2018, mainly resulting from the continued strengthening of the U.S. dollar in the relation to the Argentine peso.

Other costs and expenses represent general and administrative expenses of the parent company and other expenses not allocated to business segments, including the cost of certain long-term incentive plans and new business ventures. Other costs and expenses increased to \$201 million in 2019 from \$193 million in 2018.

Expenses from Non-Insurance Businesses. Expenses from non-insurance businesses represent costs associated with businesses engaged in the distribution of promotional merchandise, world-wide textile solutions, and aviation-related businesses that include (i) cost of goods sold related to aircraft and products sold and services provided, and (ii) general and administrative expenses. Expenses from non-insurance businesses were \$403 million in 2019 compared to \$364 million in 2018. The increase mainly relates to expenses from a promotional merchandise business purchased in the second half of 2018 as well as growth in expenses from the aviation-related businesses.

Interest Expense. Interest expense was \$153 million in 2019 compared with \$157 million in 2018. In March 2018, the Company issued \$175 million aggregate principal amount of 5.70% subordinated debentures due 2058, and in April 2018, the Company issued another \$10 million principal amount of such debentures. Additionally in 2018, the Company issued subsidiary debt of \$116 million, which was primarily attributable to a non-recourse mortgage loan on a real estate property in Florida. During 2019, the Company repaid at maturity \$489 million aggregate principal amount of senior notes and other debt. In December 2019, the Company issued \$300 million aggregate principal amount of 5.10% subordinated debentures due 2059.

Income Taxes. The effective income tax rate was 19.8% in 2019 and 20.1% in 2018. The effective income tax rate differs from the federal income tax rate of 21% primarily because of the tax-exempt income and tax on income from foreign jurisdictions with different tax rates.

The Company has not provided U.S. deferred income taxes on the undistributed earnings of approximately \$124 million of its non-U.S. subsidiaries since these earnings are intended to be permanently reinvested in the non-U.S. subsidiaries. In the future, if such earnings were distributed the Company projects that the incremental tax, if any, will be immaterial.

Results of Operations for the Years Ended December 31, 2018 and 2017

Business Segment Results

Following is a summary of gross and net premiums written, net premiums earned, loss ratios (losses and loss expenses incurred expressed as a percentage of net premiums earned), expense ratios (underwriting expenses expressed as a percentage of net premiums earned) and GAAP combined ratios (sum of loss ratio and expense ratio) for each of our business segments for the years ended December 31, 2018 and 2017. The GAAP combined ratio represents a measure of underwriting profitability, excluding investment income. A GAAP combined ratio in excess of 100 indicates an underwriting loss; a number below 100 indicates an underwriting profit.

(In thousands)	2018	2017
Insurance		
Gross premiums written	\$ 6,980,202	\$ 6,699,171
Net premiums written	5,791,905	5,555,515
Net premiums earned	5,702,073	5,549,403
Loss ratio	62.5%	62.5%
Expense ratio	32.6	33.0
GAAP combined ratio	95.1	95.5
Reinsurance & Monoline Excess		
Gross premiums written	\$ 722,292	\$ 777,792
Net premiums written	641,322	704,993
Net premiums earned	669,432	762,016
Loss ratio	61.0%	70.0%
Expense ratio	35.8	35.7
GAAP combined ratio	96.8	105.7
Consolidated		
Gross premiums written	\$ 7,702,494	\$ 7,476,963
Net premiums written	6,433,227	6,260,508
Net premiums earned	6,371,505	6,311,419
Loss ratio	62.4%	63.4%
Expense ratio	32.9	33.3
GAAP combined ratio	95.3	96.7

Net Income to Common Stockholders. The following table presents the Company's net income to common stockholders and net income per diluted share for the years ended December 31, 2018 and 2017.

(In thousands, except per share data)	2018		2017	
Net income to common stockholders	\$	640,749	\$	549,094
Weighted average diluted shares		192,395		193,527
Net income per diluted share	\$	3.33	\$	2.84

The Company reported net income of \$641 million in 2018 compared to \$549 million in 2017. The 17% increase in net income was primarily due to an after-tax increase in net investment income of \$79 million, mainly driven by growth in the fixed maturity security portfolio, higher interest rates and an increase in investment funds, an after-tax increase in underwriting income of \$72 million, a \$34 million increase in after-tax foreign currency gains, an after-tax increase in income from non-insurance businesses of \$6 million, and a \$60 million decrease in tax expense primarily due to the reduction of the federal corporate tax rate from 35% to 21%, partially offset by a decrease in after-tax net investment gains of \$145 million, an after-tax increase in interest expense of \$8 million, an after-tax reduction in insurance service fee income of \$4 million, and an after-tax increase in corporate expenses of \$2 million. The number of weighted average diluted shares decreased slightly primarily due to share repurchases.

Premiums. Gross premiums written were \$7,702 million in 2018, an increase of 3% from \$7,477 million in 2017. The increase was due to growth in the Insurance segment of \$281 million, partially offset by a decrease in the Reinsurance & Monoline Excess segment of \$56 million. Approximately 78% of policies expiring in 2018 were renewed, and 79% of policies expiring in 2017 were renewed.

Average renewal premium rates (adjusted for change in exposures) increased 2.5% in 2018 and 0.9% in 2017.

A summary of gross premiums written in 2018 compared with 2017 by line of business within each business segment follows:

- Insurance gross premiums increased 4% to \$6,980 million in 2018 from \$6,699 million in 2017. Gross premiums increased \$157 million (7%) for other liability, \$87 million (12%) for professional liability, \$64 million (4%) for short-tail lines and \$54 million (7%) for commercial auto, and decreased \$81 million (5%) for workers' compensation.
- Reinsurance & Monoline Excess gross premiums decreased 7% to \$722 million in 2018 from \$778 million in 2017. Gross premiums written decreased \$38 million (19%) for property lines and \$24 million (6%) for casualty lines and increased \$6 million (4%) for monoline excess.

Net premiums written were \$6,433 million in 2018, an increase of 3% from \$6,261 million in 2017. Ceded reinsurance premiums as a percentage of gross written premiums were 17% and 16% in 2018 and 2017, respectively.

Premiums earned increased 1% to \$6,372 million in 2018 from \$6,311 million in 2017. Insurance premiums (including the impact of rate changes) are generally earned evenly over the policy term, and accordingly recent rate increases will be earned over the upcoming quarters. Premiums earned in 2018 are related to business written during both 2018 and 2017. Audit premiums were \$192 million in 2018 compared with \$172 million in 2017.

Net Investment Income. Following is a summary of net investment income for the years ended December 31, 2018 and 2017:

(In thousands)	Amount		Average Annualized Yield	
	2018	2017	2018	2017
Fixed maturity securities, including cash and cash equivalents and loans receivable	\$ 519,269	\$ 473,101	3.6%	3.3%
Investment funds	109,349	68,169	8.8	5.7
Arbitrage trading account	28,157	19,145	4.7	3.6
Real estate	18,591	19,975	1.0	1.5
Equity securities	3,230	2,350	1.4	1.1
Gross investment income	678,596	582,740	3.7	3.3
Investment expenses	(4,361)	(6,952)	—	—
Total	\$ 674,235	\$ 575,788	3.7%	3.3%

Net investment income increased 17% to \$674 million in 2018 from \$576 million in 2017 primarily due to an increase in income from fixed maturity securities of \$46 million, a \$41 million increase in investment funds, a \$9 million increase in arbitrage trading account and a decrease in investment expenses of \$2 million, partially offset by a decrease in real estate of \$1 million. Investment funds are reported on a one quarter lag. The average annualized yield for fixed maturity securities was 3.6% in 2018 and 3.3% in 2017; accordingly, the increase in fixed maturity securities income was mainly the result of a larger investment portfolio and higher interest rates. The effective duration of the fixed maturity portfolio was 2.8 years at December 31, 2018, down from 3.0 years at December 31, 2017. The Company has maintained a shortened duration of its fixed maturity security portfolio. This has reduced the potential impact of mark-to-market adjustments on the portfolio and positioned the Company to take advantage of rising interest rates. Average invested assets, at cost (including cash and cash equivalents), were \$18.4 billion in 2018 and \$17.5 billion in 2017.

Insurance Service Fees. The Company earns fees from an insurance distribution business, a third-party administrator, and as a servicing carrier of workers' compensation assigned risk plans for certain states. Insurance service fees were \$118 million in 2018 and \$135 million in 2017. The decrease is primarily due to the sale of a third party administration business in the third quarter of 2018.

Net Realized and Unrealized Gains on Investments. The Company buys and sells securities and other investment assets on a regular basis in order to maximize its total return on investments. Decisions to sell securities and other investment assets are based on management's view of the underlying fundamentals of specific investments as well as management's expectations regarding interest rates, credit spreads, currency values and general economic conditions. Effective January 1, 2018, the Company adopted accounting guidance that requires all equity investments with readily determinable fair values to be measured at fair value with changes in the fair value recognized through net income (other than those equity securities accounted for under the equity method of accounting or those that result in consolidation of the investee). Net realized and unrealized gains on investments were \$154 million in 2018 compared with \$336 million in 2017. In 2018, the gains reflected net realized gains on investment sales of \$480 million reduced by a change in unrealized gains on equity securities of \$320

million as well as \$6 million in OTTI. In 2017, realized gains were primarily related to the sale of an investment in an office building located in Washington, D.C. and the sale of shares of a publicly traded common stock.

Other-Than-Temporary Impairments. The cost of securities is adjusted when appropriate to include a provision for a decline in value that is considered to be other-than-temporary. In 2018, there were \$6 million of other-than-temporary impairments. There was no other-than-temporary impairments in 2017.

Revenues from Non-Insurance Businesses. Revenues from non-insurance businesses were derived from businesses engaged in the distribution of promotional merchandise, world-wide textile solutions, and aviation-related businesses that provide services to aviation markets, including (i) the distribution, manufacturing, repair and overhaul of aircraft parts and components, (ii) the sale of new and used aircraft, and (iii) avionics, fuel, maintenance, storage and charter services. Revenues from non-insurance businesses increased to \$373 million in 2018 from \$326 million in 2017, primarily due to the purchase of a business in the second half of 2018 and revenues from a textile business purchased in March 2017.

Losses and Loss Expenses. Losses and loss expenses decreased to \$3,975 million in 2018 from \$4,002 million in 2017. The consolidated loss ratio was 62.4% in 2018 and 63.4% in 2017. Catastrophe losses, net of reinsurance recoveries and reinstatement premiums, were \$105 million in 2018 compared with \$184 million in 2017. The more significant 2017 catastrophe losses largely related to hurricanes Harvey, Irma, and Maria, along with two earthquakes in Mexico. Favorable prior year reserve development (net of premium offsets) was \$39 million in 2018 compared with \$37 million in 2017. The loss ratio excluding catastrophe losses and prior year reserve development increased 0.2 points to 61.3% in 2018 from 61.1% in 2017.

A summary of loss ratios in 2018 compared with 2017 by business segment follows:

- **Insurance** - The loss ratio was 62.5% in both 2018 and 2017. Catastrophe losses were \$76 million in 2018 compared with \$107 million in 2017. Favorable prior year reserve development was \$19 million in 2018 compared with \$30 million in 2017. The loss ratio excluding catastrophe losses and prior year reserve development increased 0.4 points to 61.5% in 2018 from 61.1% in 2017.
- **Reinsurance & Monoline Excess** - The loss ratio of 61.0% in 2018 was 9.0 points lower than the loss ratio of 70.0% in 2017. Catastrophe losses were \$29 million in 2018 compared with \$77 million in 2017. Favorable prior year reserve development was \$20 million in 2018 compared with \$7 million in 2017. The loss ratio excluding catastrophe losses and prior year reserve development decreased 1.1 points to 59.6% in 2018 from 60.7% in 2017.

Other Operating Costs and Expenses. Following is a summary of other operating costs and expenses:

(In thousands)	2018	2017
Policy acquisition and insurance operating expenses	\$ 2,098,881	\$ 2,101,024
Insurance service expenses	118,357	129,776
Net foreign currency (gains) losses	(27,067)	15,267
Other costs and expenses	193,050	190,865
Total	\$ 2,383,221	\$ 2,436,932

Policy acquisition and insurance operating expenses are comprised of commissions paid to agents and brokers, premium taxes and other assessments and internal underwriting costs. Policy acquisition and insurance operating expenses remained flat and net premiums earned increased 1% from 2017. The expense ratio (policy acquisition and insurance operating expenses expressed as a percentage of premiums earned) was 32.9% in 2018 and 33.3% in 2017.

Service expenses, which represent the costs associated with the fee-based businesses, decreased 9% to \$118 million in 2018 from \$130 million in 2017. The decrease is primarily due to the sale of a third party administration business in the third quarter of 2018.

Net foreign currency (gains) losses result from transactions denominated in a currency other than an operating unit's functional currency. Net foreign currency gains were \$27 million in 2018 compared to losses of \$15 million in 2017, resulting from the strengthening U.S. dollar and the change of functional currency for the Company's Argentine operations to the U.S. dollar as of July 1, 2018. The Argentine economy was determined to be highly inflationary under GAAP requiring the change in functional currency beginning with the third quarter of 2018.

Other costs and expenses represent general and administrative expenses of the parent company and other expenses not allocated to business segments, including the cost of certain long-term incentive plans and new business ventures. Other costs and expenses increased to \$193 million in 2018 from \$191 million in 2017.

Expenses from Non-Insurance Businesses. Expenses from non-insurance businesses represent costs associated with businesses engaged in the distribution of promotional merchandise, world-wide textile solutions, and aviation-related businesses that include (i) cost of goods sold related to aircraft and products sold and services provided, and (ii) general and administrative expenses. Expenses from non-insurance businesses were \$364 million in 2018 compared to \$325 million in 2017. The increase mainly relates to a new business purchased in the second half of 2018 as well as the textile business purchased in March 2017.

Interest Expense. Interest expense was \$157 million in 2018 compared with \$147 million in 2017. In March 2018, the Company issued \$175 million aggregate principal amount of 5.70% subordinated debentures due 2058, and in April 2018, the Company issued another \$10 million principal amount of such debentures. Additionally in 2018, the Company issued subsidiary debt of \$116 million, which was primarily attributable to a non-recourse mortgage loan on a real estate property in Florida.

Income Taxes. The effective income tax rate was 20% in 2018 compared to 28% in 2017. The decrease in the effective tax rate in 2018 from 2017 was primarily due to the Tax Cuts and Jobs Act of 2017, which reduced the federal corporate tax rate from 35% to 21%.

The Company has not provided U.S. deferred income taxes on the undistributed earnings of approximately \$70 million of its non-U.S. subsidiaries since these earnings are intended to be permanently reinvested in the non-U.S. subsidiaries. In the future, if such earnings were distributed the Company projects that the incremental tax, if any, will be immaterial.

Investments

As part of its investment strategy, the Company establishes a level of cash and highly liquid short-term and intermediate-term securities that, combined with expected cash flow, it believes is adequate to meet its payment obligations. Due to the low fixed maturity investment returns, the Company invests in equity securities, merger arbitrage securities, investment funds, private equity, loans and real estate related assets. The Company's investments in investment funds and its other alternative investments have experienced, and the Company expects to continue to experience, greater fluctuations in investment income.

The Company also attempts to maintain an appropriate relationship between the effective duration of the investment portfolio and the approximate duration of its liabilities (i.e., policy claims and debt obligations). The effective duration of the investment portfolio was 2.8 years at December 31, 2019 and 2018. The Company's investment portfolio and investment-related assets as of December 31, 2019 were as follows:

(\$ in thousands)	Carrying Value	Percent of Total
Fixed maturity securities:		
U.S. government and government agencies	\$ 786,931	4.0%
State and municipal:		
Special revenue	2,422,700	12.4
Local general obligation	469,855	2.4
State general obligation	421,704	2.2
Pre-refunded (1)	390,126	2.0
Corporate backed	261,559	1.3
Total state and municipal	3,965,944	20.3
Mortgage-backed securities:		
Agency	859,043	4.4
Residential-Prime	432,418	2.2
Commercial	309,374	1.6
Residential-Alt A	33,130	0.2
Total mortgage-backed securities	1,633,965	8.3
Asset-backed securities	2,790,630	14.3
Corporate:		
Industrial	2,329,173	12.0
Financial	1,481,152	7.6
Utilities	340,641	1.7
Other	5,449	—
Total corporate	4,156,415	21.3
Foreign government	847,076	4.3
Total fixed maturity securities	14,180,961	72.6
Equity securities available for sale:		
Preferred stocks	313,815	1.6
Common stocks	166,805	0.9
Total equity securities available for sale	480,620	2.5
Real estate	2,105,950	10.8
Investment funds	1,213,535	6.2
Cash and cash equivalents	1,023,710	5.3
Arbitrage trading account	400,809	2.1
Loans receivable	91,799	0.5
Total investments	\$ 19,497,384	100.0%

(1) Pre-refunded securities are securities for which an escrow account has been established to fund the remaining payments of principal and interest through maturity. Such escrow accounts are funded almost exclusively with U.S. Treasury and U.S. government agency securities.

Fixed Maturity Securities. The Company's investment policy with respect to fixed maturity securities is generally to purchase instruments with the expectation of holding them to their maturity. However, management of the available for sale

portfolio is considered necessary to maintain an approximate matching of assets and liabilities as well as to adjust the portfolio as a result of changes in financial market conditions and tax considerations.

The Company's philosophy related to holding or selling fixed maturity securities is based on its objective of maximizing total return. The key factors that management considers in its investment decisions as to whether to hold or sell fixed maturity securities are its view of the underlying fundamentals of specific securities as well as its expectations regarding interest rates, credit spreads and currency values. In a period in which management expects interest rates to rise, the Company may sell longer duration securities in order to mitigate the impact of an interest rate rise on the fair value of the portfolio. Similarly, in a period in which management expects credit spreads to widen, the Company may sell lower quality securities, and in a period in which management expects certain foreign currencies to decline in value, the Company may sell securities denominated in those foreign currencies. The sale of fixed maturity securities in order to achieve the objective of maximizing total return may result in realized gains; however, there is no reason to expect these gains to continue in future periods.

Equity Securities. Equity securities primarily represent investments in common and preferred stocks in companies with potential growth opportunities in different sectors, mainly in the financial institutions sector.

Investment Funds. At December 31, 2019, the carrying value of investment funds was \$1,214 million, including investments in real estate funds of \$412 million, financial services funds of \$281 million, energy funds of \$157 million, transportation funds of \$147 million, and other funds of \$217 million. Investment funds are primarily reported on a one-quarter lag.

Real Estate. Real estate is directly owned property held for investment. At December 31, 2019, real estate properties in operation included a long-term ground lease in Washington D.C., a hotel in Memphis, Tennessee, two office complexes in New York City, office buildings in West Palm Beach and Palm Beach, Florida, and an office building in London, U.K. In addition, there is a mixed-use project in Washington D.C. under development. The Company expects to fund further development costs for the project with a combination of its own funds and external financing.

Arbitrage Trading Account. The arbitrage trading account is comprised of direct investments in arbitrage securities. Merger arbitrage is the business of investing in the securities of publicly held companies that are the targets in announced tender offers and mergers.

Loans Receivable. Loans receivable, which are carried at amortized cost, had an amortized cost of \$92 million and an aggregate fair value of \$95 million at December 31, 2019. The amortized cost of loans receivable is net of a valuation allowance of \$2 million as of December 31, 2019. Loans receivable include real estate loans of \$59 million that are secured by commercial real estate located primarily in New York. Real estate loans receivable generally earn interest at floating LIBOR-based interest rates and have maturities (inclusive of extension options) through August 2025. Loans receivable include commercial loans of \$33 million that are secured by business assets and have fixed interest rates and varying maturities not exceeding 10 years.

Liquidity and Capital Resources

Cash Flow. Cash flow provided from operating activities increased to \$1,144 million in 2019 from \$620 million in 2018, primarily due to an increase in net premium receipts and the timing of loss and loss expense payments as well as payments to tax authorities.

The Company's insurance subsidiaries' principal sources of cash are premiums, investment income, service fees and proceeds from sales and maturities of portfolio investments. The principal uses of cash are payments for claims, taxes, operating expenses and dividends. The Company expects its insurance subsidiaries to fund the payment of losses with cash received from premiums, investment income and fees. The Company generally targets an average duration for its investment portfolio that is within one year of the average duration of its liabilities so that portions of its investment portfolio mature throughout the claim cycle and are available for the payment of claims if necessary. In the event operating cash flow and proceeds from maturities and prepayments of fixed maturity securities are not sufficient to fund claim payments and other cash requirements, the remainder of the Company's cash and investments is available to pay claims and other obligations as they become due. The Company's investment portfolio is highly liquid, with approximately 78% invested in cash, cash equivalents and marketable fixed maturity securities as of December 31, 2019. If the sale of fixed maturity securities were to become necessary, a realized gain or loss equal to the difference between the cost and sales price of securities sold would be recognized.

Debt. At December 31, 2019, the Company had senior notes, subordinated debentures and other debt outstanding with a carrying value of \$2,626 million and a face amount of \$2,671 million. The maturities of the outstanding debt are \$6 million in 2019, \$300 million in 2020, \$1 million in 2021, \$427 million in 2022, \$102 million in 2028, \$250 million in 2037, \$350 million in 2044, \$350 million in 2053, \$400 million in 2056, \$185 million in 2058 and \$300 million in 2059.

In March 2018, the Company issued \$175 million aggregate principal amount of 5.70% subordinated debentures due 2058, and in April 2018, the Company issued another \$10 million principal amount of such debentures. Additionally in 2018, the Company issued subsidiary debt of \$116 million, which was primarily attributable to a non-recourse mortgage loan on a real estate property in Florida. During 2019, the Company repaid at maturity \$489 million aggregate principal amount of senior notes and other debt. In December 2019, the Company issued \$300 million aggregate principal amount of 5.10% subordinated debentures due 2059.

Equity. The Company repurchased 269,072, 357,600, and 731,003 shares of its common stock in 2019, 2018 and 2017, respectively. The aggregate cost of the repurchases was \$18 million in 2019, \$25 million in 2018 and \$48 million in 2017. In 2019, the Board declared regular quarterly cash dividends of \$0.10 per share in the first quarter, and \$0.11 per share in each of the remaining three quarters, plus additional special dividends in the respective amounts of \$0.50 per share in the second quarter and \$0.75 per share in the fourth quarter, for a total of \$308 million in aggregate dividends in 2019. At December 31, 2019, total common stockholders' equity was \$6.1 billion, common shares outstanding were 183,411,907 and stockholders' equity per outstanding share was \$33.12.

Total Capital. Total capitalization (equity, debt and subordinated debentures) was \$8.7 billion at December 31, 2019. The percentage of the Company's capital attributable to senior notes, subordinated debentures and other debt was 30% at December 31, 2019 and 34% at December 31, 2018.

Federal and Foreign Income Taxes

The Company files a consolidated income tax return in the U.S. and foreign tax returns in each of the countries in which it has overseas operations. At December 31, 2019, the Company had a gross deferred tax asset (net of valuation allowance) of \$392 million (which primarily relates to loss and loss expense reserves and unearned premium reserves) and a gross deferred tax liability of \$410 million (which primarily relates to deferred policy acquisition costs, unrealized investment gains and investment funds). The realization of the deferred tax asset is dependent upon the Company's ability to generate sufficient taxable income in future periods. Based on historical results and the prospects for future operations, management anticipates that it is more likely than not that future taxable income will be sufficient for the realization of this asset.

Reinsurance

The Company follows customary industry practice of reinsuring a portion of its exposures in exchange for paying reinsurers a part of the premiums received on the policies it writes. Reinsurance is purchased by the Company principally to reduce its net liability on individual risks and to protect it against catastrophic losses. Although reinsurance does not legally discharge an insurer from its primary liability for the full amount of the policies, it does make the assuming reinsurer liable to the insurer to the extent of the reinsurance coverage. The Company monitors the financial condition of its reinsurers and attempts to place its coverages only with financially sound carriers. Reinsurance coverage and retentions vary depending on the line of business, location of the risk and nature of loss. The Company's reinsurance purchases include the following:

- **Property reinsurance treaties** - The Company purchases property reinsurance to reduce its exposure to large individual property losses and catastrophe events. Following is a summary of significant property reinsurance treaties in effect as of January 1, 2020: The Company's property per risk reinsurance generally covers losses between \$2.5 million and \$60 million. The Company's catastrophe excess of loss reinsurance program provides protection for net losses between \$15 million and \$395 million for the majority of business written by its U.S. Insurance segment operating units and Lloyd's Syndicate, excluding offshore energy. The Company's catastrophe reinsurance agreements are subject to certain limits, exclusions and reinstatement premiums.
- **Casualty reinsurance treaties** - The Company purchases casualty reinsurance to reduce its exposure to large individual casualty losses, workers' compensation catastrophe losses and casualty losses involving multiple claimants or insureds for the majority of business written by its U.S. companies. A significant casualty treaty (casualty catastrophe) in effect as of January 1, 2020 provides significant protection for losses between \$5 million and \$75 million from single events with claims involving two or more insurable interests or for systemic events involving multiple insureds and/or policy years. The treaty also covers casualty contingency losses in excess of \$2 million and up to \$97 million. For losses involving two or more claimants for primary workers' compensation business, coverage is generally in place for losses between \$5 million and \$270 million. For excess workers' compensation business, such coverage is generally in place for losses between \$25 million and \$545 million.
- **Facultative reinsurance** - The Company also purchases facultative reinsurance on certain individual policies or risks that are in excess of treaty reinsurance capacity.
- **Other reinsurance** - Depending on the operating unit, the Company purchases specific additional reinsurance to supplement the above programs.

The Company places a number of its casualty treaties on a "risk attaching" basis. Under risk attaching treaties, all claims from policies incepting during the period of the reinsurance contract are covered even if they occur after the expiration date of the reinsurance contract. If the Company is unable to renew or replace its existing reinsurance coverage, protection for unexpired policies would remain in place until their expiration. In such case, the Company could revise its underwriting strategy for new business to reflect the absence of reinsurance protection. The casualty catastrophe treaty highlighted above was purchased on a claims made basis. Property catastrophe and workers' compensation catastrophe reinsurance is generally placed on a "losses occurring basis," whereby only claims occurring during the period are covered. If the Company is unable to renew or replace these reinsurance coverages, unexpired policies would not be protected, though we frequently have the option to purchase run-off coverage in our treaties.

Following is a summary of earned premiums and loss and loss expenses ceded to reinsurers for each of the three years ended December 31, 2019:

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Earned premiums	\$ 1,328,843	\$ 1,236,049	\$ 1,161,936
Losses and loss expenses	836,831	829,742	601,769

Ceded earned premiums increased 7.5% in 2019 to \$1,329 million. The ceded losses and loss expenses ratio decreased 4 points to 63% in 2019 from 67% in 2018.

The following table presents the credit quality of amounts due from reinsurers as of December 31, 2019. Amounts due from reinsurers are net of reserves for uncollectible reinsurance of \$1 million in the aggregate.

(In thousands)

Reinsurer	Rating	(1)	Amount
Amounts due in excess of \$20 million:			
Munich Re	AA-	\$	243,021
Lloyd's of London	A+		201,092
Swiss Re	AA-		179,274
Alleghany Group	A+		169,185
Partner Re	A+		127,638
Hannover Re Group	AA-		95,486
Axis Capital	A+		93,547
Berkshire Hathaway	AA+		82,882
Renaissance Re	A+		79,954
Korean Re	A		64,464
Everest Re	A+		55,431
Liberty Mutual	A		49,346
Arch Capital Group	A+		27,116
Qatar Re	A		22,477
Chubb Limited	AA		15,199
Other reinsurers:			
Rated A- or better			166,658
Secured (2)			118,550
All Others			23,195
Subtotal			1,814,515
Residual market pools (3)			319,168
Total		\$	2,133,683

(1) S&P rating, or if not rated by S&P, A.M. Best rating.

(2) Secured by letters of credit or other forms of collateral.

(3) Many states require licensed insurers that provide workers' compensation insurance to participate in programs that provide workers' compensation to employers that cannot procure coverage from an insurer on a voluntary basis. Insurers can fulfill this residual market obligation by participating in pools where results are shared by the participating companies. The Company acts as a servicing carrier for workers' compensation pools in certain states. As a servicing carrier, the Company writes residual market business directly and then cedes 100% of this business to the respective pool. As a servicing carrier, the Company receives fee income for its services. The Company does not retain underwriting risk, and credit risk is limited as ceded balances are jointly shared by all the pool members.

Contractual Obligations

Following is a summary of the Company's contractual obligations as of December 31, 2019:

(In thousands)

Estimated Payments By Periods	2020	2021	2022	2023	2024	Thereafter
Gross reserves for losses	\$ 3,329,476	\$ 2,340,960	\$ 1,744,383	\$ 1,270,669	\$ 906,267	\$ 3,553,186
Operating lease obligations	49,293	47,107	41,652	37,510	31,152	78,820
Purchase obligations	125,828	64,798	43,172	40,014	40,383	—
Subordinated debentures	—	—	—	—	—	1,235,000
Debt maturities	305,934	1,120	426,503	—	—	701,750
Interest payments	142,552	126,427	119,771	103,584	103,584	2,775,560
Other long-term liabilities	3,346	2,998	2,650	2,382	2,131	24,696
Total	<u>\$ 3,956,429</u>	<u>\$ 2,583,410</u>	<u>\$ 2,378,131</u>	<u>\$ 1,454,159</u>	<u>\$ 1,083,517</u>	<u>\$ 8,369,012</u>

The estimated payments for reserves for losses and loss expenses in the above table represent the projected (undiscounted) payments for gross loss and loss expense reserves related to losses incurred as of December 31, 2019. The estimated payments in the above table do not consider payments for losses to be incurred in future periods. These amounts include reserves for reported losses and reserves for incurred but not reported losses. Estimated amounts recoverable from reinsurers are not reflected. The estimated payments by year are based on historical loss payment patterns. The actual payments may differ from the estimated amounts due to changes in ultimate loss reserves and in the timing of the settlement of those reserves. In addition, at December 31, 2019, the Company had commitments to invest up to \$232 million and \$114 million in certain investment funds and real estate construction projects, respectively. These amounts are not included in the above table.

The Company utilizes letters of credit to back certain reinsurance payments and obligations. Outstanding letters of credit were \$4 million as of December 31, 2019. The Company has made certain guarantees to state regulators that the statutory capital of certain subsidiaries will be maintained above certain minimum levels.

Off-Balance Sheet Arrangements

An off-balance sheet arrangement is any transaction, agreement or other contractual arrangement involving an unconsolidated entity under which a company has (1) made guarantees, (2) a retained or contingent interest in transferred assets, (3) an obligation under derivative instruments classified as equity or (4) any obligation arising out of a material variable interest in an unconsolidated entity that provides financing, liquidity, market risk or credit risk support to the Company, or that engages in leasing, hedging or research and development arrangements with the Company. The Company has no arrangements of these types that management believes may have a material current or future effect on our financial condition, liquidity or results of operations.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk. The fair value of the Company's investments is subject to risks of fluctuations in credit quality and interest rates. The Company uses various models and stress test scenarios to monitor and manage interest rate risk. The Company attempts to manage its interest rate risk by maintaining an appropriate relationship between the effective duration of the investment portfolio and the approximate duration of its liabilities (i.e., policy claims and debt obligations). The effective duration for the fixed maturity portfolio (including cash and cash equivalents) was 2.8 years at December 31, 2019 and 2018.

In addition, the fair value of the Company's international investments is subject to currency risk. The Company attempts to manage its currency risk by matching its foreign currency assets and liabilities where considered appropriate.

The following table outlines the groups of fixed maturity securities and their effective duration at December 31, 2019:

(\$ in thousands)	Effective Duration	Fair Value
	(Years)	
State and municipal	3.9	\$ 3,978,944
Corporate	3.5	4,156,415
Mortgage-backed securities	3.3	1,634,959
Foreign government	2.4	847,076
U.S. government and government agencies	2.3	786,931
Asset-backed securities	1.3	2,790,630
Loans receivable	0.8	94,613
Cash and cash equivalents	—	1,023,710
Total	2.8	\$ 15,313,278

Duration is a common measure of the price sensitivity of fixed maturity securities to changes in interest rates. The Company determines the estimated change in fair value of the fixed maturity securities, assuming parallel shifts in the yield curve for treasury securities while keeping spreads between individual securities and treasury securities static. The estimated fair value at specified levels at December 31, 2019 would be as follows:

(In thousands)	Estimated Fair Value	Change in Fair Value
Change in interest rates:		
300 basis point rise	\$ 13,953,211	\$ (1,360,067)
200 basis point rise	14,413,112	(900,167)
100 basis point rise	14,866,470	(446,809)
Base scenario	15,313,278	—
100 basis point decline	15,750,805	437,526
200 basis point decline	16,181,783	868,504
300 basis point decline	16,606,149	1,292,871

Arbitrage investing differs from other types of investments in that its focus is on transactions and events believed likely to bring about a change in value over a relatively short time period (usually four months or less). The Company believes that this makes arbitrage investments less vulnerable to changes in general stock market conditions. Potential changes in market conditions are also mitigated by the implementation of hedging strategies, including short sales.

Additionally, the arbitrage positions are generally hedged against market declines by purchasing put options, selling call options or entering into swap contracts. The Company's merger arbitrage securities are primarily exposed to the risk of completion of announced deals, which are subject to regulatory as well as transactional and other risks.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
W. R. Berkley Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of W. R. Berkley Corporation and Subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedules II to VI (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, 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, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 20, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 10 to the consolidated financial statements, the Company has changed its method of accounting for equity investments measured at fair value with changes in the fair value recognized through net income (other than those accounted for under equity method of accounting or those that result in consolidation of the investee) effective January 1, 2018 due to the adoption of ASU 2016-01, Financial Instruments.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 consolidated 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 consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. 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 consolidated 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 consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgment. The communication of a 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.

Assessment of the estimate of the reserves for losses and loss expenses

As discussed in Notes 1 and 13 to the consolidated financial statements, the Company estimates the reserves for losses and loss expenses (reserves) using a variety of actuarial techniques and methods based on expected loss ratios, rate of

loss cost inflation, reported and paid loss emergence patterns, loss frequency and severity, and the loss reporting lag. Such amounts are adjusted for certain qualitative factors. The reserves as of December 31, 2019 were \$12,583 million.

We identified the assessment of the estimate of reserves as a critical audit matter because it involved significant measurement uncertainty, which required complex auditor judgment. Specialized actuarial expertise was required to evaluate the actuarial method or methods and assumptions used. Assumptions included loss development factors; the weighting of actuarial methods when more than one was used; the impact of qualitative factors; and whether payments are fixed and reliably determinable for certain reserves subject to discounting.

The primary procedures we performed to address the critical audit matter included the following. We tested certain internal controls over the Company's reserving process, including controls over the Company's process to develop the Company's best estimate of reserves based on actuarial methodologies and assumptions employed by the Company's actuaries. We involved actuarial professionals with specialized skills and knowledge, who assisted in:

- Examining the Company's actuarial methodologies for compliance with Actuarial Standards of Practice;
- Evaluating the Company's actuarial point estimate by performing independent actuarial analyses for certain of the larger, more complex operating units;
- Evaluating the Company's actuarial point estimate by examining the Company actuaries' procedures, and certain key assumptions for the remaining operating units;
- Developing an independent range of reserves based on actuarial methodologies and assumptions and comparing to the Company's reserves;
- Evaluating the Company's reserves and year-over-year movements of the Company's reserves relative to, and within, the independently developed range of reserves; and
- Evaluating the Company's ability to discount certain reserves by comparing the expected payout pattern of claims paid to actual claims paid.

/S/ KPMG LLP

We have served as the Company's auditor since 1972.

New York, New York
February 20, 2020

W. R. BERKLEY CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME

(In thousands, except per share data)	Year Ended December 31,		
	2019	2018	2017
REVENUES:			
Net premiums written	\$ 6,863,499	\$ 6,433,227	\$ 6,260,508
Change in net unearned premiums	(230,211)	(61,722)	50,911
Net premiums earned	6,633,288	6,371,505	6,311,419
Net investment income	645,614	674,235	575,788
Net realized and unrealized gains on investments:			
Net realized and unrealized gains before OTTI	120,703	160,175	335,858
Other-than-temporary impairments ("OTTI")	—	(5,687)	—
Net realized and unrealized gains on investments	120,703	154,488	335,858
Revenues from non-insurance businesses	406,541	372,985	326,165
Insurance service fees	92,680	117,757	134,729
Other income	3,370	681	805
Total revenues	7,902,196	7,691,651	7,684,764
OPERATING COSTS AND EXPENSES:			
Losses and loss expenses	4,131,116	3,974,702	4,002,348
Other operating costs and expenses	2,362,082	2,383,221	2,436,932
Expenses from non-insurance businesses	402,669	364,449	325,417
Interest expense	153,409	157,185	147,297
Total operating costs and expenses	7,049,276	6,879,557	6,911,994
Income before income taxes	852,920	812,094	772,770
Income tax expense	(168,935)	(163,028)	(219,433)
Net income before noncontrolling interests	683,985	649,066	553,337
Noncontrolling interests	(2,041)	(8,317)	(4,243)
Net income to common stockholders	\$ 681,944	\$ 640,749	\$ 549,094
NET INCOME PER SHARE:			
Basic	\$ 3.58	\$ 3.37	\$ 2.93
Diluted	\$ 3.52	\$ 3.33	\$ 2.84

See accompanying notes to consolidated financial statements.

W. R. BERKLEY CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Net income before noncontrolling interests	\$ 683,985	\$ 649,066	\$ 553,337
Other comprehensive gain (loss):			
Change in unrealized translation adjustments	37,166	(112,099)	64,706
Change in unrealized investment gains (losses), net of taxes	215,902	(252,327)	(51,752)
Other comprehensive gain (loss)	253,068	(364,426)	12,954
Comprehensive income	937,053	284,640	566,291
Comprehensive income to the noncontrolling interest	(2,144)	(8,271)	(4,262)
Comprehensive income to common stockholders	\$ 934,909	\$ 276,369	\$ 562,029

See accompanying notes to consolidated financial statements.

W. R. BERKLEY CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

(In thousands, except share data)	December 31,	
	2019	2018
Assets		
Investments:		
Fixed maturity securities	\$ 14,180,961	\$ 13,606,812
Investment funds	1,213,535	1,332,818
Real estate	2,105,950	1,957,092
Arbitrage trading account	400,809	452,548
Equity securities	480,620	279,006
Loans receivable	91,799	94,813
Total investments	18,473,674	17,723,089
Cash and cash equivalents	1,023,710	817,602
Premiums and fees receivable	1,997,186	1,807,762
Due from reinsurers	2,133,683	1,932,291
Deferred policy acquisition costs	517,364	497,629
Prepaid reinsurance premiums	567,595	498,880
Trading account receivable from brokers and clearing organizations	423,543	347,228
Property, furniture and equipment	422,091	416,372
Goodwill	169,652	173,037
Accrued investment income	138,789	144,481
Current federal and foreign income taxes	13,398	703
Deferred federal and foreign income taxes	—	35,490
Other assets	762,743	501,413
Total assets	\$ 26,643,428	\$ 24,895,977
Liabilities and Equity		
Liabilities:		
Reserves for losses and loss expenses	\$ 12,583,249	\$ 11,966,448
Unearned premiums	3,656,507	3,359,991
Due to reinsurers	360,314	256,917
Trading account securities sold but not yet purchased	36,143	38,120
Deferred federal and foreign income taxes	17,706	—
Other liabilities	1,244,888	1,005,184
Senior notes and other debt	1,427,575	1,882,028
Subordinated debentures	1,198,704	907,491
Total liabilities	20,525,086	19,416,179
Equity:		
Preferred stock, par value \$.10 per share:		
Authorized 5,000,000 shares; issued and outstanding — none	—	—
Common stock, par value \$.20 per share:		
Authorized 500,000,000 shares, issued and outstanding, net of treasury shares, 183,411,907 and 182,993,640 shares, respectively	70,535	70,535
Additional paid-in capital	1,056,042	1,039,633
Retained earnings	7,932,372	7,558,619
Accumulated other comprehensive loss	(257,299)	(510,470)
Treasury stock, at cost, 169,264,857 and 169,683,237 shares, respectively	(2,726,711)	(2,720,466)
Total common stockholders' equity	6,074,939	5,437,851
Noncontrolling interests	43,403	41,947
Total equity	6,118,342	5,479,798
Total liabilities and equity	\$ 26,643,428	\$ 24,895,977

See accompanying notes to consolidated financial statements.

W. R. BERKLEY CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except per share data)	Year Ended December 31,		
	2019	2018	2017
COMMON STOCK:			
Beginning and end of period	\$ 70,535	\$ 70,535	\$ 70,535
ADDITIONAL PAID IN CAPITAL:			
Beginning of period	\$ 1,039,633	\$ 1,024,772	\$ 1,013,935
Restricted stock units issued	(32,370)	(19,547)	(27,959)
Restricted stock units expensed	48,779	34,408	38,796
End of period	\$ 1,056,042	\$ 1,039,633	\$ 1,024,772
RETAINED EARNINGS:			
Beginning of period	\$ 7,558,619	\$ 6,956,882	\$ 6,595,987
Cumulative effect adjustment resulting from changes in accounting principles	—	215,939	—
Net income to common stockholders	681,944	640,749	549,094
Dividends (\$1.68, \$1.39, and \$1.03 per share, respectively)	(308,191)	(254,951)	(188,199)
End of period	\$ 7,932,372	\$ 7,558,619	\$ 6,956,882
ACCUMULATED OTHER COMPREHENSIVE (LOSS) INCOME:			
Unrealized investment gains (losses):			
Beginning of period	\$ (91,491)	\$ 375,421	\$ 427,154
Cumulative effect adjustment resulting from changes in accounting principles	—	(214,539)	—
Unrealized gains (losses) on securities not other-than-temporarily impaired	215,636	(252,241)	(52,628)
Unrealized gains (losses) on other-than-temporarily impaired securities	369	(132)	895
End of period	124,514	(91,491)	375,421
Currency translation adjustments:			
Beginning of period	(418,979)	(306,880)	(371,586)
Net change in period	37,166	(112,099)	64,706
End of period	(381,813)	(418,979)	(306,880)
Total accumulated other comprehensive (loss) income	\$ (257,299)	\$ (510,470)	\$ 68,541
TREASURY STOCK:			
Beginning of period	\$ (2,720,466)	\$ (2,709,386)	\$ (2,688,817)
Stock exercised/vested	11,431	12,981	26,511
Stock issued	549	689	727
Stock repurchased	(18,225)	(24,750)	(47,807)
End of period	\$ (2,726,711)	\$ (2,720,466)	\$ (2,709,386)
NONCONTROLLING INTERESTS:			
Beginning of period	\$ 41,947	\$ 39,819	\$ 33,926
(Distributions) contributions	(688)	(6,143)	1,631
Net income	2,041	8,317	4,243
Other comprehensive income (loss), net of tax	103	(46)	19
End of period	\$ 43,403	\$ 41,947	\$ 39,819

See accompanying notes to consolidated financial statements.

W. R. BERKLEY CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)	Year Ended December 31,		
	2019	2018	2017
CASH FROM OPERATING ACTIVITIES:			
Net income to common stockholders	\$ 681,944	\$ 640,749	\$ 549,094
Adjustments to reconcile net income to net cash from operating activities:			
Net realized and unrealized gains on investments	(120,703)	(154,488)	(335,858)
Depreciation and amortization	113,387	131,108	112,956
Noncontrolling interests	2,041	8,317	4,243
Investment funds	(69,194)	(109,349)	(69,333)
Stock incentive plans	49,274	36,591	40,490
Change in:			
Arbitrage trading account	(26,553)	(19,093)	(4,896)
Premiums and fees receivable	(189,151)	(43,813)	(67,752)
Reinsurance accounts	(165,898)	(165,287)	(66,542)
Deferred policy acquisition costs	(20,057)	7,788	30,343
Current income taxes	(12,530)	(11,950)	25,859
Deferred income taxes	7,130	(74,761)	(16,893)
Reserves for losses and loss expenses	612,254	339,015	438,530
Unearned premiums	301,355	84,142	4,160
Other	(19,506)	(48,770)	66,482
Net cash from operating activities	1,143,793	620,199	710,883
CASH FLOWS USED IN INVESTING ACTIVITIES:			
Proceeds from sale of fixed maturity securities	2,093,271	3,525,149	4,035,162
Proceeds from sale of equity securities	79,963	497,989	195,270
Distributions (contributions) from investment funds	194,663	(79,635)	247,404
Proceeds from maturities and prepayments of fixed maturity securities	2,933,980	2,676,455	3,556,744
Purchase of fixed maturity securities	(5,352,886)	(6,677,753)	(7,940,957)
Purchase of equity securities	(172,978)	(85,610)	(27,522)
Real estate purchased	(146,752)	(514,064)	(236,039)
Change in loans receivable	3,481	(13,204)	27,135
Net additions to property, furniture and equipment	(60,457)	(49,860)	(115,719)
Change in balances due from security brokers	2,844	4,262	(4,372)
Cash received in connection with business disposition	—	8,664	—
Payment for business purchased, net of cash acquired	—	(6,637)	(70,570)
Net cash used in investing activities	(424,871)	(714,244)	(333,464)
CASH FLOWS USED IN FINANCING ACTIVITIES:			
Net proceeds from issuance of debt	290,974	294,562	6,983
Repayment of senior notes and other debt	(456,360)	(4,524)	(20)
Cash dividends to common stockholders	(308,191)	(254,951)	(188,199)
Purchase of common treasury shares	(18,225)	(24,750)	(47,807)
Other, net	(21,391)	(17,740)	(6,043)
Net cash used in financing activities	(513,193)	(7,403)	(235,086)
Net impact on cash due to change in foreign exchange rates	379	(31,421)	12,853
Net increase (decrease) in cash and cash equivalents	206,108	(132,869)	155,186
Cash and cash equivalents at beginning of year	817,602	950,471	795,285
Cash and cash equivalents at end of year	\$ 1,023,710	\$ 817,602	\$ 950,471

See accompanying notes to consolidated financial statements.

W. R. BERKLEY CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2019, 2018 and 2017

(1) Summary of Significant Accounting Policies

(A) Principles of consolidation and basis of presentation

The consolidated financial statements, which include the accounts of W. R. Berkley Corporation and its subsidiaries (the "Company"), have been prepared on the basis of U.S. generally accepted accounting principles ("GAAP"). All significant intercompany transactions and balances have been eliminated. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the revenues and expenses reflected during the reporting period. The most significant items on our balance sheet that involve a greater degree of accounting estimates that are subject to change in the future are the valuation of investments, other-than-temporary impairments, reserves for losses and loss expenses and premium estimates. Actual results could differ from those estimates.

Reclassifications have been made in the 2018 and 2017 financial statements as originally reported to conform to the presentation of the 2019 financial statements. Shares outstanding and per share amounts have been adjusted to reflect the 3-for-2 common stock split effected on April 2, 2019. Additionally, commencing with the first quarter of 2019, the Company renamed the Reinsurance segment as Reinsurance & Monoline Excess, and reclassified the monoline excess business from the Insurance segment to such renamed segment. The reclassified business includes operations that solely retain risk on an excess basis.

(B) Revenue recognition

Insurance premiums are recognized as written at the inception of the policy. Reinsurance premiums are estimated based upon information received from ceding companies, and subsequent differences from such estimates are recorded in the period they are determined. Insurance and reinsurance premiums are primarily earned on a pro rata basis over the policy term. Fees for services are earned over the period that the services are provided.

Audit premiums are recognized when they are reliably determinable. The change in accruals for earned but unbilled audit premiums increased (decreased) net premiums written and premiums earned by \$4 million, \$(4) million and \$8 million in 2019, 2018 and 2017, respectively.

Revenues from non-insurance businesses are derived from businesses engaged in the distribution of promotional merchandise, world-wide textile solutions, and aircraft services provided to the general, commercial and military aviation markets. These aircraft services include (i) the distribution, manufacturing, repair and overhaul of aircraft parts and components, (ii) the sale of new and used aircraft, and (iii) avionics, fuel, maintenance, storage and charter services. Revenue is recognized upon the shipment of products and parts, the delivery of aircraft, the delivery of fuel, and over the completion period of services.

Insurance service fee revenue represents servicing fees for program administration and claims management services provided by the Company, including workers' compensation assigned risk plans, as well as insurance brokerage and risk management services. Fees for program administration, claims management and risk management services are primarily recognized ratably over the related contract period for which the underlying services are rendered. Commissions for insurance brokerage are generally recognized when the underlying insurance policy is effective.

(C) Cash and cash equivalents

Cash equivalents consist of funds invested in money market accounts and investments with an effective maturity of three months or less when purchased.

(D) Investments

Fixed maturity securities classified as available for sale are carried at estimated fair value, with unrealized gains and losses, net of applicable income taxes, excluded from earnings and reported as a component of comprehensive income and a separate component of stockholders' equity. Fixed maturity securities that the Company has the positive intent and ability to hold to maturity are classified as held to maturity and reported at amortized cost. Investment income from fixed maturity securities is recognized based on the constant effective yield method. Premiums and discounts on mortgage-backed securities are adjusted for the effects of actual and anticipated prepayments on a retrospective basis.

Equity securities with readily determinable fair values are measured at fair value, with changes in the fair value recognized in net income within net realized and unrealized gains on investments.

Fixed maturity securities that the Company purchased with the intent to sell in the near-term are classified as trading account securities and are reported at estimated fair value. Realized and unrealized gains and losses from trading activity are reported as net investment income and are recorded at the trade date. Short sales and short call options are presented as trading securities sold but not yet purchased. Unsettled trades and the net margin balances held by the clearing broker are presented as a trading account receivable from brokers and clearing organizations.

Investment funds are carried under the equity method of accounting. The Company's share of the earnings or losses of investment funds is primarily reported on a one-quarter lag in order to facilitate the timely completion of the Company's consolidated financial statements.

Loans receivable primarily represent commercial real estate mortgage loans and bank loans and are carried at amortized cost. The Company monitors the performance of its loans receivable and establishes an allowance for loan losses for loans where the Company determines it is probable that the contractual terms will not be met, with a corresponding charge to earnings. For loans that are evaluated individually and deemed to be impaired, the Company establishes a specific allowance based on a discounted cash flow analysis and comparable cost and sales methodologies, if appropriate. Individual loans that are not considered impaired and smaller-balance homogeneous loans are evaluated collectively and a general allowance is established if it is considered probable that a loss has been incurred.

The accrual of interest on loans receivable is discontinued if the loan is 90 days past due based on the contractual terms of the loan unless the loan is adequately secured and in process of collection. In general, loans are placed on non-accrual status or charged off at an earlier date if collection of principal or interest is considered doubtful. Interest on these loans is accounted for on a cash basis until qualifying for return to accrual status. Loans are returned to accrual status when all principal and interest amounts contractually due are brought current and future payments are reasonably assured.

Fair value is defined as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." Fair value of investments is determined based on a fair value hierarchy that prioritizes the use of observable inputs over the use of unobservable inputs and requires the use of observable inputs when available. (See Note 12 of the Notes to Consolidated Financial Statements.)

Realized gains or losses represent the difference between the cost of securities sold and the proceeds realized upon sale and are recorded at the trade date. The Company uses primarily the first-in, first-out method to determine the cost of securities sold.

The cost of securities is adjusted where appropriate to include a provision for a decline in value which is considered to be other than temporary. An other-than-temporary decline is considered to occur in investments where there has been a sustained reduction in fair value and where the Company does not expect to recover the cost basis of the investment prior to the time of sale or maturity.

For fixed maturity securities that the Company intends to sell or, more likely than not, would be required to sell, a decline in value below amortized cost is considered to be an other-than-temporary impairment ("OTTI"). The amount of OTTI is equal to the difference between amortized cost and fair value at the balance sheet date. For fixed maturity securities that the Company does not intend to sell or believes that it is more likely than not it would not be required to sell, a decline in value below amortized cost is considered to be an OTTI if the Company does not expect to recover the entire amortized cost basis of a security (i.e., the present value of cash flows expected to be collected is less than the amortized cost basis of the security). The portion of the decline in value considered to be a credit loss (i.e., the difference between the present value of cash flows expected to be collected and the amortized cost basis of the security) is recognized in earnings. The portion of the decline in value not considered to be a credit loss (i.e., the difference in the present value of cash flows expected to be collected and the fair value of the security) is recognized in other comprehensive income.

Impairment assessments for structured securities, including mortgage-backed securities and asset-backed securities, collateralized debt obligations and corporate debt, are generally evaluated based on the performance of the underlying collateral under various economic and default scenarios that may involve subjective judgments and estimates by management. Modeling these securities involves various factors, such as projected default rates, the nature and realizable value of the collateral, if any, the ability of the issuer to make scheduled payments, historical performance and other relevant economic and performance factors. If an OTTI determination is made, a discounted cash flow analysis is used to ascertain the amount of the credit impairment.

Real estate held for investment purposes is initially recorded at the purchase price, which is generally fair value, and is subsequently reported at cost less accumulated depreciation. Real estate taxes, interest and other costs incurred during

development and construction are capitalized. Buildings are depreciated on a straight-line basis over the estimated useful lives of the building. Minimum rental income is recognized on a straight-line basis over the lease term. Income and expenses from real estate are reported as net investment income. The carrying value of real estate is reviewed for impairment and an impairment loss is recognized if the estimated undiscounted cash flows from the use and disposition of the property are less than the carrying value of the property.

(E) Per share data

The Company presents both basic and diluted net income per share ("EPS") amounts. Basic EPS is calculated by dividing net income by weighted average number of common shares outstanding during the year (including 7,575,168 common shares held in a grantor trust). The common shares held in the grantor trust are for delivery upon settlement of vested but mandatorily deferred restricted stock units ("RSUs"). Shares held by the grantor trust do not affect diluted shares outstanding since the shares deliverable under vested RSUs were already included in diluted shares outstanding. Diluted EPS is based upon the weighted average number of basic and common equivalent shares outstanding during the year and is calculated using the treasury stock method for stock incentive plans. Common equivalent shares are excluded from the computation in periods in which they have an anti-dilutive effect.

(F) Deferred policy acquisition costs

Acquisition costs associated with the successful acquisition of new and renewed insurance and reinsurance contracts are deferred and amortized ratably over the terms of the related contracts. Ceding commissions received on reinsurance contracts are netted against acquisition costs and are recognized ratably over the life of the contract. Deferred policy acquisition costs are presented net of unearned ceding commissions. Deferred policy acquisition costs are comprised primarily of commissions, as well as employment-related underwriting costs and premium taxes. Deferred policy acquisition costs are reviewed to determine if they are recoverable from future income and, if not, are charged to expense. The recoverability of deferred policy acquisition costs is evaluated separately by each of our operating companies. Future investment income is taken into account in measuring the recoverability of deferred policy acquisition costs.

(G) Reserves for losses and loss expenses

Reserves for losses and loss expenses are an accumulation of amounts determined on the basis of (1) evaluation of claims for business written directly by the Company; (2) estimates received from other companies for reinsurance assumed by the Company; and (3) estimates for losses incurred but not reported (based on Company and industry experience). These estimates are periodically reviewed and, as experience develops and new information becomes known, the reserves are adjusted as necessary. Such adjustments are reflected in the statements of income in the period in which they are determined. The Company discounts its reserves for excess and assumed workers' compensation claims using a risk-free or statutory rate. (See Note 13 of Notes to Consolidated Financial Statements.)

(H) Reinsurance ceded

The unearned portion of premiums ceded to reinsurers is reported as prepaid reinsurance premiums and earned ratably over the policy term. The estimated amounts of reinsurance recoverable on unpaid losses are reported as due from reinsurers. To the extent any reinsurer does not meet its obligations under reinsurance agreements, the Company must discharge its liability. Amounts due from reinsurers are reflected net of funds held where the right of offset is present. The Company has provided reserves for estimated uncollectible reinsurance.

(I) Deposit accounting

Contracts that do not meet the risk transfer requirements of GAAP are accounted for using the deposit accounting method. Under this method, an asset or liability is recognized at the inception of the contract based on consideration paid or received. The amount of the deposit asset or liability is adjusted at subsequent reporting dates using the interest method with a corresponding credit or charge to interest income or expense. Deposit liabilities for assumed reinsurance contracts were \$41 million and \$45 million at December 31, 2019 and 2018, respectively.

(J) Federal and foreign income taxes

The Company files a consolidated income tax return in the U.S. and foreign tax returns in countries where it has overseas operations. The Company's method of accounting for income taxes is the asset and liability method. Under this method, deferred tax assets and liabilities are measured using tax rates currently in effect or expected to apply in the years in which those temporary differences are expected to reverse. Interest and penalties, if any, are reported as income tax expense.

The Company believes there are no tax positions that would require disclosure under GAAP. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that all or a portion of the deferred tax assets will not be realized.

(K) Foreign currency

Gains and losses resulting from foreign currency transactions (transactions denominated in a currency other than the entity's functional currency) are reported on the statements of income as other operating costs and expenses. Unrealized gains or losses resulting from translating the results of non-U.S. dollar denominated operations are reported in accumulated other comprehensive income. Revenues and expenses denominated in currencies other than U.S. dollars are generally translated at the weighted average exchange rate during the year. Assets and liabilities are translated at the rate of exchange in effect at the balance sheet date.

(L) Property, furniture and equipment

Property, furniture and equipment are carried at cost less accumulated depreciation. Depreciation is calculated using the estimated useful lives of the respective assets. Depreciation expense was \$54 million, \$54 million and \$50 million for 2019, 2018 and 2017, respectively.

(M) Comprehensive income

Comprehensive income encompasses all changes in stockholders' equity (except those arising from transactions with stockholders) and includes net income, net unrealized holding gains or losses on available for sale securities and unrealized foreign currency translation adjustments.

(N) Goodwill and other intangible assets

Goodwill and other intangible assets are tested for impairment on an annual basis and at interim periods where circumstances require. The Company's impairment test as of December 31, 2019 indicated that there were no material impairment losses related to goodwill and other intangible assets. Intangible assets of \$99 million and \$104 million are included in other assets as of December 31, 2019 and 2018, respectively.

(O) Restricted stock units

The costs resulting from all share-based payment transactions with employees are recognized in the consolidated financial statements using a fair-value-based measurement method. Compensation cost is recognized for financial reporting purposes over the period in which the employee is required to provide service in exchange for the award (generally the vesting period).

(P) Statements of cash flows

Interest payments were \$160 million, \$155 million and \$145 million in 2019, 2018 and 2017, respectively. Income taxes paid were \$125 million, \$186 million and \$207 million in 2019, 2018 and 2017, respectively. Other non-cash items include unrealized investment gains and losses. (See Note 10 of Notes to Consolidated Financial Statements.)

(Q) Recent accounting pronouncements

Recently adopted accounting pronouncements:

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02, Leases, which amends the accounting and disclosure guidance for leases. This guidance retains the two classifications of a lease, as either an operating or finance lease, both of which require lessees to recognize a right-of-use asset and a lease liability for leases with terms of more than 12 months. The right-of-use asset and the lease liability are determined based upon the present value of cash flows. Finance leases reflect the financial arrangement by recognizing interest expense on the lease liability separately from the amortization expense of the right-of-use asset. Operating leases recognize lease expense (with no separate recognition of interest expense) on a straight-line basis over the term of the lease. The accounting by lessors is not significantly changed by the updated guidance. The updated guidance was effective for reporting periods beginning after December 15, 2018. As permitted by the rules, the Company adopted the new guidance prospectively effective January 1, 2019. The Company elected to use the practical expedient permitted by the transition guidance which allowed companies to not reassess existing lease classifications for already effective leases. The adoption of this guidance resulted in the recognition of a right-of-use asset of \$185 million and a lease liability of \$215 million (prior to adoption the Company had a \$30 million

deferred rent liability recognized) reported within other assets and other liabilities, respectively, in the consolidated balance sheet. The adoption of this guidance did not have an impact on the Company's results of operations or liquidity.

All other accounting and reporting standards that became effective in 2019 were either not applicable to the Company or their adoption did not have a material impact on the Company.

Accounting and reporting standards that are not yet effective:

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses, which amends the accounting guidance for credit losses on financial instruments. The updated guidance amends the current other-than-temporary impairment model for available-for-sale debt securities by requiring the recognition of impairments relating to credit losses through an allowance account and limits the amount of credit loss to the difference between a security's amortized cost basis and its fair value. This guidance also applies a new current expected credit loss model for determining credit-related impairments for financial instruments measured at amortized cost, such as reinsurance recoverables. The updated guidance is effective for reporting periods beginning after December 15, 2019.

The adoption of this guidance will result in the recognition of an allowance for credit loss in connection with operating assets (such as premiums and fees receivable and due from reinsurers) of less than 0.25% of these assets and a corresponding cumulative effect adjustment that will decrease common stockholders' equity. Certain investments (primarily fixed maturity securities available for sale) will also establish an allowance for credit loss of approximately 0.25% of these assets, with a cumulative effect adjustment decreasing retained earnings and increasing AOCI by offsetting amounts, resulting in no impact to total common stockholders' equity.

All other recently issued but not yet effective accounting and reporting standards are either not applicable to the Company or are not expected to have a material impact on the Company.

(2) Consolidated Statement of Comprehensive (Loss) Income

The following tables present the components of the changes in accumulated other comprehensive (loss) income ("AOCI") as of and for the years ended December 31, 2019 and 2018:

(In thousands)			
	Unrealized investment gains (losses)	Currency translation adjustments	Accumulated other comprehensive (loss) income
December 31, 2019			
<u>Changes in AOCI</u>			
Beginning of period	\$ (91,491)	\$ (418,979)	\$ (510,470)
Other comprehensive gains before reclassifications	224,011	37,166	261,177
Amounts reclassified from AOCI	(8,109)	—	(8,109)
Other comprehensive gain	215,902	37,166	253,068
Unrealized investment gain related to non-controlling interest	103	—	103
Ending balance	\$ 124,514	\$ (381,813)	\$ (257,299)
<u>Amounts reclassified from AOCI</u>			
Pre-tax	\$ (10,265) (1)	\$ —	\$ (10,265)
Tax effect	2,156 (2)	—	2,156
After-tax amounts reclassified	\$ (8,109)	\$ —	\$ (8,109)
<u>Other comprehensive gain</u>			
Pre-tax	\$ 261,970	\$ 37,166	\$ 299,136
Tax effect	(46,068)	—	(46,068)
Other comprehensive gain	\$ 215,902	\$ 37,166	\$ 253,068
December 31, 2018			
<u>Changes in AOCI</u>			
Beginning of period	\$ 375,421	\$ (306,880)	\$ 68,541
Cumulative effect adjustment resulting from changes in accounting principles	(214,539)	—	(214,539)
Restated beginning of period	160,882	(306,880)	(145,998)
Other comprehensive income before reclassifications	(246,535)	(112,099)	(358,634)
Amounts reclassified from AOCI	(5,792)	—	(5,792)
Other comprehensive loss	(252,327)	(112,099)	(364,426)
Unrealized investment loss related to non-controlling interest	(46)	—	(46)
Ending balance	\$ (91,491)	\$ (418,979)	\$ (510,470)
<u>Amounts reclassified from AOCI</u>			
Pre-tax	\$ (7,332) (1)	\$ —	\$ (7,332)
Tax effect	1,540 (2)	—	1,540
After-tax amounts reclassified	\$ (5,792)	\$ —	\$ (5,792)
<u>Other comprehensive loss</u>			
Pre-tax	\$ (302,737)	\$ (112,099)	\$ (414,836)
Tax effect	50,410	—	50,410
Other comprehensive loss	\$ (252,327)	\$ (112,099)	\$ (364,426)

(1) Net realized and unrealized gains on investments in the consolidated statements of income.

(2) Income tax expense in the consolidated statements of income.

(3) Investments in Fixed Maturity Securities

At December 31, 2019 and 2018, investments in fixed maturity securities were as follows:

(In thousands)	Amortized Cost	Gross Unrealized		Fair Value	Carrying Value
		Gains	Losses		
December 31, 2019					
Held to maturity:					
State and municipal	\$ 70,312	\$ 13,000	\$ —	\$ 83,312	\$ 70,312
Residential mortgage-backed	8,371	994	—	9,365	8,371
Total held to maturity	78,683	13,994	—	92,677	78,683
Available for sale:					
U.S. government and government agency	775,157	13,249	(1,475)	786,931	786,931
State and municipal:					
Special revenue	2,343,209	64,586	(4,152)	2,403,643	2,403,643
State general obligation	359,298	22,074	(97)	381,275	381,275
Pre-refunded	364,571	20,342	(128)	384,785	384,785
Corporate backed	255,230	7,232	(903)	261,559	261,559
Local general obligation	432,333	32,684	(647)	464,370	464,370
Total state and municipal	3,754,641	146,918	(5,927)	3,895,632	3,895,632
Mortgage-backed securities:					
Residential (1)	1,298,145	23,230	(5,155)	1,316,220	1,316,220
Commercial	304,506	5,214	(346)	309,374	309,374
Total mortgage-backed securities	1,602,651	28,444	(5,501)	1,625,594	1,625,594
Asset-backed securities	2,802,588	9,532	(21,490)	2,790,630	2,790,630
Corporate:					
Industrial	2,260,073	72,900	(3,800)	2,329,173	2,329,173
Financial	1,447,589	37,681	(4,118)	1,481,152	1,481,152
Utilities	325,762	15,281	(402)	340,641	340,641
Other	5,219	230	—	5,449	5,449
Total corporate	4,038,643	126,092	(8,320)	4,156,415	4,156,415
Foreign government	924,284	16,465	(93,673)	847,076	847,076
Total available for sale	13,897,964	340,700	(136,386)	14,102,278	14,102,278
Total investments in fixed maturity securities	\$ 13,976,647	\$ 354,694	\$ (136,386)	\$ 14,194,955	\$ 14,180,961

(In thousands)	Amortized Cost	Gross Unrealized		Fair Value	Carrying Value
December 31, 2018		Gains	Losses		
Held to maturity:					
State and municipal	\$ 67,891	\$ 11,549	\$ —	\$ 79,440	\$ 67,891
Residential mortgage-backed	10,744	1,259	—	12,003	10,744
Total held to maturity	78,635	12,808	—	91,443	78,635
Available for sale:					
U.S. government and government agency	697,931	9,219	(4,910)	702,240	702,240
State and municipal:					
Special revenue	2,396,089	30,507	(19,790)	2,406,806	2,406,806
State general obligation	335,626	11,951	(1,103)	346,474	346,474
Pre-refunded	408,141	16,568	(30)	424,679	424,679
Corporate backed	272,440	4,319	(2,350)	274,409	274,409
Local general obligation	403,219	18,350	(1,339)	420,230	420,230
Total state and municipal	3,815,515	81,695	(24,612)	3,872,598	3,872,598
Mortgage-backed securities:					
Residential (1)	1,264,376	7,729	(20,225)	1,251,880	1,251,880
Commercial	345,070	1,304	(3,708)	342,666	342,666
Total mortgage-backed securities	1,609,446	9,033	(23,933)	1,594,546	1,594,546
Asset-backed securities	2,462,303	10,131	(33,687)	2,438,747	2,438,747
Corporate:					
Industrial	2,295,778	15,355	(53,312)	2,257,821	2,257,821
Financial	1,502,427	7,178	(45,683)	1,463,922	1,463,922
Utilities	330,326	2,997	(4,148)	329,175	329,175
Other	60,238	322	(167)	60,393	60,393
Total corporate	4,188,769	25,852	(103,310)	4,111,311	4,111,311
Foreign government	822,093	11,753	(25,111)	808,735	808,735
Total available for sale	13,596,057	147,683	(215,563)	13,528,177	13,528,177
Total investments in fixed maturity securities	\$ 13,674,692	\$ 160,491	\$ (215,563)	\$ 13,619,620	\$ 13,606,812

(1) Gross unrealized gains (losses) for mortgage-backed securities include \$314,347 and (\$55,090) as of December 31, 2019 and 2018, respectively, related to the non-credit portion of OTTI recognized in other comprehensive income.

The amortized cost and fair value of fixed maturity securities at December 31, 2019, by contractual maturity, are shown below. Actual maturities may differ from contractual maturities because certain issuers may have the right to call or prepay obligations.

(In thousands)	Amortized Cost	Fair Value
Due in one year or less	\$ 959,583	\$ 917,059
Due after one year through five years	5,010,862	5,087,806
Due after five years through ten years	3,391,154	3,511,621
Due after ten years	3,004,026	3,043,510
Mortgage-backed securities	1,611,022	1,634,959
Total	\$ 13,976,647	\$ 14,194,955

At December 31, 2019 and 2018, there were no investments, other than investments in United States government and government agency securities, which exceeded 10% of common stockholders' equity. At December 31, 2019, investments with a carrying value of \$1,639 million were on deposit in custodial or trust accounts, of which \$1,219 million was on deposit with insurance regulators, \$380 million was on deposit in support of the Company's underwriting activities at Lloyd's, \$36 million was on deposit as security for reinsurance clients and \$4 million was on deposit as security for letters of credit issued in support of the Company's reinsurance operations.

(4) Investments in Equity Securities

At December 31, 2019 and 2018, investments in equity securities were as follows:

(In thousands)	Cost	Gross Unrealized		Fair Value	Carrying Value
		Gains	Losses		
December 31, 2019					
Common stocks	\$ 175,928	\$ 16,967	\$ (26,090)	\$ 166,805	\$ 166,805
Preferred stocks	169,171	148,243	(3,599)	313,815	313,815
Total	<u>\$ 345,099</u>	<u>\$ 165,210</u>	<u>\$ (29,689)</u>	<u>\$ 480,620</u>	<u>\$ 480,620</u>
December 31, 2018					
Common stocks	\$ 113,576	\$ 4,335	\$ (19,719)	\$ 98,192	\$ 98,192
Preferred stocks	115,201	72,364	(6,751)	180,814	180,814
Total	<u>\$ 228,777</u>	<u>\$ 76,699</u>	<u>\$ (26,470)</u>	<u>\$ 279,006</u>	<u>\$ 279,006</u>

(5) Arbitrage Trading Account

At December 31, 2019 and 2018, the fair value and carrying value of the arbitrage trading account were \$401 million and \$453 million, respectively. The primary focus of the trading account is merger arbitrage. Merger arbitrage is the business of investing in the securities of publicly held companies which are the targets in announced tender offers and mergers. Arbitrage investing differs from other types of investing in its focus on transactions and events believed likely to bring about a change in value over a relatively short time period (usually four months or less).

The Company uses put options and call options in order to mitigate the impact of potential changes in market conditions on the merger arbitrage trading account. These options are reported at fair value. As of December 31, 2019, the fair value of long option contracts outstanding was \$9 thousand (notional amount of \$15.5 million) and the fair value of short option contracts outstanding was \$56 thousand (notional amount of \$17.1 million). Other than with respect to the use of these trading account securities, the Company does not make use of derivatives.

(6) Net Investment Income

Net investment income consists of the following:

(In thousands)	2019	2018	2017
Investment income earned on:			
Fixed maturity securities, including cash and cash equivalents and loans receivable	\$ 517,925	\$ 519,269	\$ 473,101
Investment funds	69,194	109,349	68,169
Arbitrage trading account	34,585	28,157	19,145
Real estate	24,218	18,591	19,975
Equity securities	5,439	3,230	2,350
Gross investment income	651,361	678,596	582,740
Investment expense	(5,747)	(4,361)	(6,952)
Net investment income	<u>\$ 645,614</u>	<u>\$ 674,235</u>	<u>\$ 575,788</u>

(7) Investment Funds

The Company evaluates whether it is an investor in a variable interest entity ("VIE"). Such entities do not have sufficient equity at risk to finance their activities without additional subordinated financial support, or the equity investors, as a group, do not have the characteristics of a controlling financial interest (primary beneficiary). The Company determines whether it is the primary beneficiary of an entity subject to consolidation based on a qualitative assessment of the VIE's capital structure, contractual terms, nature of the VIE's operations and purpose, and the Company's relative exposure to the related risks of the VIE on the date it becomes initially involved in the VIE and on an ongoing basis. The Company is not the primary beneficiary in any of its investment funds, and accordingly, carries its interests in investments funds under the equity method of accounting.

The Company's maximum exposure to loss with respect to these investments is limited to the carrying amount reported on the Company's consolidated balance sheet and its unfunded commitments of \$232 million as of December 31, 2019.

Investment funds consist of the following:

(In thousands)	Carrying Value as of December 31,		Income (Losses)		
	2019	2018	2019	2018	2017
Real estate	\$ 412,275	\$ 642,137	\$ 19,154	\$ 61,453	\$ 45,068
Financial services	280,705	195,706	29,005	11,044	3,762
Energy	156,869	183,627	(18,136)	7,084	6,147
Transportation	147,034	136,640	14,193	15,390	1,686
Other funds	216,652	174,708	24,978	14,378	11,506
Total	<u>\$ 1,213,535</u>	<u>\$ 1,332,818</u>	<u>\$ 69,194</u>	<u>\$ 109,349</u>	<u>\$ 68,169</u>

The Company's share of the earnings or losses of investment funds is primarily reported on a one-quarter lag in order to facilitate the timely completion of the Company's consolidated financial statements.

(8) Real Estate

Investment in real estate represents directly owned property held for investment, as follows:

(In thousands)	As of December 31,	
	2019	2018
Properties in operation	\$ 1,351,249	\$ 1,279,584
Properties under development	754,701	677,508
Total	<u>\$ 2,105,950</u>	<u>\$ 1,957,092</u>

In 2019, properties in operation included a long-term ground lease in Washington, D.C., a hotel in Memphis, Tennessee, two office complexes in New York City, office buildings in West Palm Beach and Palm Beach, Florida, and an office building in London, U.K. Properties in operation are net of accumulated depreciation and amortization of \$59,832,000 and \$44,340,000 as of December 31, 2019 and 2018, respectively. Related depreciation expense was \$15,033,000 and \$20,644,000 for the years ended December 31, 2019 and 2018, respectively. Future minimum rental income expected on operating leases relating to properties in operation is \$59,975,701 in 2020, \$62,145,941 in 2021, \$62,734,252 in 2022, \$56,477,620 in 2023, \$54,281,781 in 2024 and \$573,636,251 thereafter.

The Company borrowed \$101,750,000 through a non-recourse loan secured by the West Palm Beach office building in 2018. The loan matures in November 2028 and carries a fixed interest rate of 4.21%. The carrying value does not reflect the outstanding financing, but rather is reflected in subsidiary debt referenced in Note 15, Indebtedness.

A mixed-use project in Washington, D.C. has been under development in 2019 and 2018.

(9) Loans Receivable

Loans receivable are as follows:

	As of December 31,	
(In thousands)	2019	2018
Amortized cost (net of valuation allowance):		
Real estate loans	\$ 58,541	\$ 62,289
Commercial loans	33,258	32,524
Total	\$ 91,799	\$ 94,813
Fair value:		
Real estate loans	\$ 59,853	\$ 63,047
Commercial loans	34,760	34,026
Total	\$ 94,613	\$ 97,073
Valuation allowance:		
Specific	\$ 165	\$ 1,200
General	1,981	2,183
Total	\$ 2,146	\$ 3,383
	For the Year Ended December 31,	
	2019	2018
Decrease in valuation allowance	\$ (1,237)	\$ —

Loans receivable in non-accrual status were \$0.2 million and \$1.2 million as of December 31, 2019 and 2018, respectively.

The Company monitors the performance of its loans receivable and assesses the ability of the borrower to pay principal and interest based upon loan structure, underlying property values, cash flow and related financial and operating performance of the property and market conditions. Loans receivable with a potential for default are further assessed using discounted cash flow analysis and comparable cost and sales methodologies, if appropriate.

The real estate loans are secured by commercial real estate primarily located in New York. These loans generally earn interest at floating LIBOR-based interest rates and have maturities (inclusive of extension options) through August 2025. The commercial loans are with small business owners who have secured the related financing with the assets of the business. Commercial loans generally earn interest on a fixed basis and have varying maturities not exceeding 10 years.

In evaluating the real estate loans, the Company considers their credit quality indicators, including loan to value ratios, which compare the outstanding loan amount to the estimated value of the property, the borrower's financial condition and performance with respect to loan terms, the position in the capital structure, the overall leverage in the capital structure and other market conditions. Based on these considerations, none of the real estate loans were considered to be impaired at December 31, 2019, and accordingly, the Company determined that a specific valuation allowance was not required.

(10) Net Realized and Unrealized Gains (Losses) on Investments

Net realized and unrealized gains (losses) on investments are as follows:

(In thousands)	2019	2018	2017
Net realized and unrealized gains (losses) on investments in earnings			
Fixed maturity securities:			
Gains	\$ 23,900	\$ 26,752	\$ 28,217
Losses	(13,636)	(13,733)	(5,342)
Equity securities (1):			
Net realized gains on investment sales	23,306	435,150	154,539
Change in unrealized gains (losses)	85,292	(320,413)	—
Investment funds (2)	(2,825)	(212)	125,423
Real estate	5,965	27,816	12,880
Loans receivable	(970)	2,838	—
Other	(329)	1,977	20,141
Net realized and unrealized gains on investments in earnings before OTTI	120,703	160,175	335,858
Other-than-temporary impairments (3)	—	(5,687)	—
Net realized and unrealized gains on investments in earnings	120,703	154,488	335,858
Income tax expense	(25,348)	(32,442)	(117,550)
After-tax net realized and unrealized gains on investments in earnings	\$ 95,355	\$ 122,046	\$ 218,308
Change in unrealized investment gains (losses) of available for sales securities:			
Fixed maturity securities	\$ 271,825	\$ (297,084)	\$ (2,192)
Previously impaired fixed maturity securities	369	(132)	895
Equity securities available for sale (4)	—	—	(77,971)
Investment funds	(2,299)	(5,672)	10,179
Other	(7,925)	151	(336)
Total change in unrealized investment gains (losses)	261,970	(302,737)	(69,425)
Income tax (expense) benefit	(46,068)	50,410	17,673
Noncontrolling interests	103	(46)	19
After-tax change in unrealized investment gains (losses) of available for sale securities	\$ 216,005	\$ (252,373)	\$ (51,733)

(1) The net realized gains or losses on investment sales represent the total gains or losses from the purchase dates of the equity securities. The change in unrealized gains consists of two components: (i) the reversal of the gain or loss recognized in previous periods on equity securities sold and (ii) the change in unrealized gain or loss resulting from mark-to-market adjustments on equity securities still held.

(2) Investment funds includes a gain of \$124 million from the sale of an investment in an office building located in Washington, D.C. for the year ended December 31, 2017.

(3) There were no OTTI for the years ended December 31, 2019 and 2017. For the year ended December 31, 2018, OTTI related to fixed maturity securities was \$6 million.

(4) Effective January 1, 2018, the Company adopted accounting guidance that requires all equity investments with readily determinable fair values (subject to certain exceptions) to be measured at fair value, with changes in the fair value recognized in net income. The Company recorded an adjustment of \$291 million to opening AOCI net of tax as a result of this guidance.

(11) Securities in an Unrealized Loss Position

The following tables summarize all fixed maturity securities in an unrealized loss position at December 31, 2019 and 2018 by the length of time those securities have been continuously in an unrealized loss position.

(In thousands)	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
December 31, 2019						
U.S. government and government agency	\$ 83,837	\$ 618	\$ 53,089	\$ 857	\$ 136,926	\$ 1,475
State and municipal	365,184	4,245	127,210	1,682	492,394	5,927
Mortgage-backed securities	301,358	2,281	180,148	3,220	481,506	5,501
Asset-backed securities	755,259	2,307	774,508	19,183	1,529,767	21,490
Corporate	307,367	3,148	121,470	5,172	428,837	8,320
Foreign government	164,536	32,028	107,266	61,645	271,802	93,673
Fixed maturity securities	<u>\$ 1,977,541</u>	<u>\$ 44,627</u>	<u>\$ 1,363,691</u>	<u>\$ 91,759</u>	<u>\$ 3,341,232</u>	<u>\$ 136,386</u>
December 31, 2018						
U.S. government and government agency	\$ 195,359	\$ 933	\$ 130,815	\$ 3,977	\$ 326,174	\$ 4,910
State and municipal	701,700	6,874	744,905	17,738	1,446,605	24,612
Mortgage-backed securities	334,063	2,911	712,595	21,022	1,046,658	23,933
Asset-backed securities	1,687,665	28,965	342,855	4,722	2,030,520	33,687
Corporate	1,730,513	54,181	954,763	49,129	2,685,276	103,310
Foreign government	246,273	24,197	80,004	914	326,277	25,111
Fixed maturity securities	<u>\$ 4,895,573</u>	<u>\$ 118,061</u>	<u>\$ 2,965,937</u>	<u>\$ 97,502</u>	<u>\$ 7,861,510</u>	<u>\$ 215,563</u>

Fixed Maturity Securities — A summary of the Company's non-investment grade fixed maturity securities that were in an unrealized loss position at December 31, 2019 is presented in the table below:

(\$ in thousands)	Number of Securities	Aggregate Fair Value	Gross Unrealized Loss
Foreign government	21	\$ 79,747	\$ 92,369
Corporate	14	65,710	4,319
Asset-backed securities	5	437	113
Mortgage-backed securities	5	954	17
Total	<u>45</u>	<u>\$ 146,848</u>	<u>\$ 96,818</u>

For OTTI of fixed maturity securities that management does not intend to sell or, more likely than not, would not be required to sell, the portion of the decline in value considered to be due to credit factors is recognized in earnings and the portion of the decline in value considered to be due to non-credit factors is recognized in other comprehensive income.

For the year ended December 31, 2019, there were no OTTI recognized in earnings for fixed maturity securities. For the year ended December 31, 2018, there were \$6 million of OTTI recognized on fixed maturity securities.

The Company has evaluated its fixed maturity securities in an unrealized loss position and believes the unrealized losses are due primarily to temporary market and sector-related factors. None of these securities are delinquent or in default on financial covenants. Based on its assessment of these issuers, the Company expects them to continue to meet their contractual payment obligations as they become due and does not consider any of these securities to be OTTI.

(12) Fair Value Measurements

The Company's fixed maturity and equity securities classified as available for sale and its trading account securities are carried at fair value. Fair value is defined as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date". The Company utilizes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels, as follows:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.

Level 2 - Quoted prices for similar assets or valuations based on inputs that are observable.

Level 3 - Estimates of fair value based on internal pricing methodologies using unobservable inputs. Unobservable inputs are only used to measure fair value to the extent that observable inputs are not available.

Substantially all of the Company's fixed maturity securities were priced by independent pricing services. The prices provided by the independent pricing services are estimated based on observable market data in active markets utilizing pricing models and processes, which may include benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, sector groupings, matrix pricing and reference data. The pricing services may prioritize inputs differently on any given day for any security based on market conditions, and not all inputs are available for each security evaluation on any given day. The pricing services used by the Company have indicated that they will only produce an estimate of fair value if objectively verifiable information is available. The determination of whether markets are active or inactive is based upon the volume and level of activity for a particular asset class. The Company reviews the prices provided by pricing services for reasonableness and periodically performs independent price tests of a sample of securities to ensure proper valuation.

If prices from independent pricing services are not available for fixed maturity securities, the Company estimates the fair value. For Level 2 securities, the Company utilizes pricing models and processes which may include benchmark yields, sector groupings, matrix pricing, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, bids, offers and reference data. Where broker quotes are used, the Company generally requests two or more quotes and sets a price within the range of quotes received based on its assessment of the credibility of the quote and its own evaluation of the security. The Company generally does not adjust quotes received from brokers. For securities traded only in private negotiations, the Company determines fair value based primarily on the cost of such securities, which is adjusted to reflect prices of recent placements of securities of the same issuer, financial projections, credit quality and business developments of the issuer and other relevant information.

For Level 3 securities, the Company generally uses a discounted cash flow model to estimate the fair value of fixed maturity securities. The cash flow models are based upon assumptions as to prevailing credit spreads, interest rate and interest rate volatility, time to maturity and subordination levels. Projected cash flows are discounted at rates that are adjusted to reflect illiquidity, where appropriate.

The following tables present the assets and liabilities measured at fair value as of December 31, 2019 and 2018 by level:

(In thousands)	Total	Level 1	Level 2	Level 3
December 31, 2019				
Assets:				
Fixed maturity securities available for sale:				
U.S. government and government agency	\$ 786,931	\$ —	\$ 786,931	\$ —
State and municipal	3,895,632	—	3,895,632	—
Mortgage-backed securities	1,625,594	—	1,625,594	—
Asset-backed securities	2,790,630	—	2,790,630	—
Corporate	4,156,415	—	4,156,415	—
Foreign government	847,076	—	847,076	—
Total fixed maturity securities available for sale	14,102,278	—	14,102,278	—
Equity securities:				
Common stocks	166,805	157,752	—	9,053
Preferred stocks	313,815	—	307,310	6,505
Total equity securities	480,620	157,752	307,310	15,558
Arbitrage trading account	400,809	381,061	19,748	—
Total	\$ 14,983,707	\$ 538,813	\$ 14,429,336	\$ 15,558
Liabilities:				
Trading account securities sold but not yet purchased	\$ 36,143	\$ 36,143	\$ —	\$ —
December 31, 2018				
Assets:				
Fixed maturity securities available for sale:				
U.S. government and government agency	\$ 702,240	\$ —	\$ 702,240	\$ —
State and municipal	3,872,598	—	3,872,598	—
Mortgage-backed securities	1,594,546	—	1,594,546	—
Asset-backed securities	2,438,747	—	2,438,648	99
Corporate	4,111,311	—	4,111,311	—
Foreign government	808,735	—	808,735	—
Total fixed maturity securities available for sale	13,528,177	—	13,528,078	99
Equity securities:				
Common stocks	98,192	89,596	—	8,596
Preferred stocks	180,814	—	176,869	3,945
Total equity securities	279,006	89,596	176,869	12,541
Arbitrage trading account	452,548	353,335	81,905	17,308
Total	\$ 14,259,731	\$ 442,931	\$ 13,786,852	\$ 29,948
Liabilities:				
Trading account securities sold but not yet purchased	\$ 38,120	\$ 37,327	\$ —	\$ 793

The following tables summarize changes in Level 3 assets and liabilities for the years ended December 31, 2019 and 2018:

	Gains (Losses) Included in:								
(In thousands)	Beginning Balance	Earnings (Losses)	Other Comprehensive Income (Losses)	Impairments	Purchases	Sales	Paydowns/Maturities	Transfers In / Out	Ending Balance
Year ended December 31, 2019									
Assets:									
Fixed maturity securities available for sale:									
Asset-backed securities	\$ 99	\$ (26)	\$ 61	\$ —	\$ —	\$ (134)	\$ —	\$ —	\$ —
Total	99	(26)	61	—	—	(134)	—	—	—
Equity securities:									
Common stocks	8,596	2,005		—	—	(1,548)	—	—	9,053
Preferred stocks	3,945	(42)	—	—	2,602	—	—	—	6,505
Total	12,541	1,963	—	—	2,602	(1,548)	—	—	15,558
Arbitrage trading account	17,308	(8,731)	—	—	14,767	(38,233)	—	14,889	—
Total	\$ 29,948	\$ (6,794)	\$ 61	\$ —	\$ 17,369	\$ (39,915)	\$ —	\$ 14,889	\$ 15,558
Liabilities:									
Trading account securities sold but not yet purchased	\$ 793	\$ 133	\$ —	\$ —	\$ 7,609	\$ (8,535)	\$ —	\$ —	\$ —
Year ended December 31, 2018									
Assets:									
Fixed maturity securities available for sale:									
Asset-backed securities	\$ 172	\$ (2)	\$ 46	\$ —	\$ —	\$ (117)	\$ —	\$ —	\$ 99
Total	172	(2)	46	—	—	(117)	—	—	99
Equity securities:									
Common stocks	9,370	(548)		—	—	(227)	—	1	8,596
Preferred stocks	10,843	100	—	—		(6,998)	—	—	3,945
Total	20,213	(448)	—	—	—	(7,225)	—	1	12,541
Arbitrage trading account	—	(6)	—	—	11,523	(11)	—	5,802	17,308
Total	\$ 20,385	\$ (456)	\$ 46	\$ —	\$ 11,523	\$ (7,353)	\$ —	\$ 5,803	\$ 29,948
Liabilities:									
Trading account securities sold but not yet purchased	\$ —	\$ (67)	\$ —	\$ —	\$ 860	\$ —	\$ —	\$ —	\$ 793

For the year ended December 31, 2019, there were two common stocks transferred into Level 3 in the arbitrage trading account where publicly traded prices were no longer available, and both were sold by year end. For the year ended December 31, 2018, one common stock in the arbitrage trading account was transferred into Level 3 and one common stock was transferred out of Level 3. In the case of the transfer into Level 3, a publicly traded price was no longer available and in the case of the transfer out, a publicly traded price became available.

(13) Reserves for Losses and Loss Expenses

The Company's reserves for losses and loss expenses are comprised of case reserves and incurred but not reported liabilities (IBNR). When a claim is reported, a case reserve is established for the estimated ultimate payment based upon known information about the claim. As more information about the claim becomes available over time, case reserves are adjusted up or down as appropriate. Reserves are also established on an aggregate basis to provide for IBNR liabilities and expected loss reserve development on reported claims.

Loss reserves included in the Company's financial statements represent management's best estimates based upon an actuarially derived point estimate and other considerations. The Company uses a variety of actuarial techniques and methods to derive an actuarial point estimate for each operating unit. These methods may include paid loss development, incurred loss development, paid and incurred Bornhuetter-Ferguson methods and frequency and severity methods. In circumstances where one actuarial method is considered more credible than the others, that method is used to set the point estimate. The actuarial point estimate may also be based on a judgmental weighting of estimates produced from each of the methods considered. Industry loss experience is used to supplement the Company's own data in selecting "tail factors" in areas where the Company's own data is limited. The actuarial data is analyzed by line of business, coverage and accident or policy year, as appropriate, for each operating unit.

The establishment of the actuarially derived loss reserve point estimate also includes consideration of qualitative factors that may affect the ultimate losses. These qualitative considerations include, among others, the impact of re-underwriting initiatives, changes in claims handling procedures, changes in the mix of business, changes in distribution sources and changes in policy terms and conditions.

The key assumptions used to arrive at the best estimate of loss reserves are the expected loss ratios, rate of loss cost inflation, and reported and paid loss emergence patterns. Expected loss ratios represent management's expectation of losses at the time the business is priced and 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. Expected loss ratios are estimated for each key line of business within each operating unit. Expected loss cost inflation is particularly important for the long-tail lines, such as excess casualty, and claims with a high medical component, such as workers' compensation. Reported and paid loss emergence patterns are used to project current reported or paid loss amounts to their ultimate settlement value. Loss development factors are based on the historical emergence patterns of paid and incurred losses, and are derived from the Company's own experience and industry data. The paid loss emergence pattern is also significant to excess and assumed workers' compensation reserves because those reserves are discounted to their estimated present value based upon such estimated payout patterns.

Loss frequency and severity are measures of loss activity that are considered in determining the key assumptions described in our discussion of loss and loss expense reserves, including expected loss ratios, rate of loss cost inflation and reported and paid loss emergence patterns. 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 and changes in economic activity 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 the Company. The length of the loss reporting lag affects our ability to accurately predict loss frequency (loss frequencies are more predictable for lines with short reporting lags) as well as the amount of reserves needed for incurred but not reported losses (less IBNR is required for lines with short reporting lags). As a result, loss reserves for lines with short reporting lags are likely to have less variation from initial loss estimates. For lines with short reporting lags, which include commercial automobile, primary workers' compensation, other liability (claims-made) and property business, the key assumption is the loss emergence pattern used to project ultimate loss estimates from known losses paid or reported to date. For lines of business with long reporting lags, which include other liability (occurrence), products liability, excess workers' compensation and liability reinsurance, the key assumption is the expected loss ratio since there is often little paid or incurred loss data to consider. Historically, the Company has experienced less variation from its initial loss estimates for lines of businesses with short reporting lags than for lines of business with long reporting lags.

The key assumptions used in calculating the most recent estimate of the loss reserves are reviewed each quarter and adjusted, to the extent necessary, to reflect the latest reported loss data, current trends and other factors observed.

A claim may be defined as an event, as a claimant (number of parties claiming damages from an event) or by exposure type (e.g., an event may give rise to two parties, each claiming loss for bodily injury and property damage).

The most commonly used claim count method is by event. Most of the Company's operating units use the number of events to define and quantify the number of claims. However, in certain lines of business, where it is common for multiple parties to claim damages arising from a single event, an operating unit may quantify claims on the basis of the number of separate parties involved in an event. This may be the case with businesses writing substantial automobile or transportation exposure.

Claim counts for assumed reinsurance will vary based on whether the business is written on a facultative or treaty basis. Further variability as respects treaty claim counts may be reflective of the nature of the treaty, line of business coverage, and type of participation such as quota share or excess of loss contracts. Accordingly, the claim counts have been excluded from the below Reinsurance & Monoline Excess segment tables due to this variability.

The claim count information set forth in the tables presented below may not provide an accurate reflection of ultimate loss payouts by product line.

The following tables present undiscounted incurred and paid claims development as of December 31, 2019, net of reinsurance, as well as cumulative claim frequency and the total of incurred but not reported liabilities (IBNR). The information about incurred and paid claims development for the years ended December 31, 2010 to 2018 is presented as supplementary information. To enhance the comparability of the loss development data, the Company has removed the impact of foreign exchange rate movements by using the December 31, 2019 exchange rate for all periods. Beginning with accident year 2012, the Company's U.K. and European insurance business is included in the Insurance segment's tables for Other Liability, Professional Liability, Commercial Automobile and Short-Tail Lines. Prior to 2012, the actuarial analysis for its U.K. and European insurance business was performed on an underwriting year basis and accident year data is not available for those years.

**Insurance
Other Liability
(In thousands)**

Loss and Loss Expenses Incurred, Net of Reinsurance											As of December 31, 2019	
For the Year Ended December 31,												
Accident Year	Unaudited										IBNR	Cumulative Number of Reported Claims
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
2010	\$ 612,467	\$ 616,023	\$ 589,921	\$ 588,602	\$ 575,528	\$ 572,785	\$ 571,637	\$ 569,440	\$ 564,873	\$ 561,579	\$ 19,742	22
2011	—	665,420	671,537	657,679	656,976	651,973	647,091	643,195	632,382	642,774	22,746	23
2012	—	—	691,803	700,539	701,144	707,326	711,287	721,460	715,996	714,020	32,727	23
2013	—	—	—	750,054	790,314	782,260	782,039	802,908	809,250	803,856	49,079	25
2014	—	—	—	—	847,034	848,641	846,644	851,044	863,899	870,017	83,500	26
2015	—	—	—	—	—	951,028	986,655	961,441	964,598	966,662	134,615	25
2016	—	—	—	—	—	—	1,018,009	1,010,984	1,019,893	1,031,150	245,835	25
2017	—	—	—	—	—	—	—	1,066,362	1,100,127	1,122,209	377,307	25
2018	—	—	—	—	—	—	—	—	1,104,631	1,131,202	606,500	23
2019	—	—	—	—	—	—	—	—	—	1,237,276	937,110	20
Total											\$ 9,080,745	

Cumulative Paid Claims and Claim Adjustment Expenses, Net of Reinsurance										
For the Year Ended December 31,										
Accident Year	Unaudited									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
2010	\$ 45,194	\$ 128,948	\$ 246,647	\$ 334,054	\$ 414,945	\$ 459,478	\$ 489,077	\$ 506,283	\$ 522,939	\$ 531,085
2011	—	48,830	141,192	265,071	377,769	469,004	522,369	554,152	573,236	591,990
2012	—	—	57,568	157,316	298,095	415,890	511,601	578,617	620,507	651,000
2013	—	—	—	63,293	188,240	330,928	471,648	587,102	647,891	693,306
2014	—	—	—	—	78,921	190,876	338,365	480,418	594,488	680,436
2015	—	—	—	—	—	82,712	210,773	382,185	538,071	676,037
2016	—	—	—	—	—	—	69,477	208,991	390,231	558,539
2017	—	—	—	—	—	—	—	80,037	255,849	453,389
2018	—	—	—	—	—	—	—	—	86,858	264,392
2019	—	—	—	—	—	—	—	—	—	88,260
Total	\$ 5,188,434									
Reserves for loss and loss adjustment expenses before 2010, net of reinsurance										106,200
Reserves for loss and loss adjustment expenses, net of reinsurance										\$ 3,998,511

Workers' Compensation
(In thousands)

Loss and Loss Expenses Incurred, Net of Reinsurance											As of December 31, 2019	
For the Year Ended December 31,												
Accident Year	Unaudited										IBNR	Cumulative Number of Reported Claims
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
2010	\$ 352,138	\$ 355,305	\$ 411,527	\$ 420,604	\$ 426,622	\$ 429,952	\$ 429,762	\$ 427,698	\$ 424,374	\$ 424,195	\$ 13,552	45
2011	—	413,429	444,887	457,134	470,026	472,087	474,076	475,729	471,471	473,766	17,276	46
2012	—	—	501,681	501,810	503,956	503,863	509,167	512,707	508,169	506,730	24,736	48
2013	—	—	—	552,570	547,295	546,995	543,238	547,000	542,274	541,926	29,205	53
2014	—	—	—	—	639,436	637,307	627,767	617,242	615,435	604,029	44,633	57
2015	—	—	—	—	—	712,800	690,525	650,997	641,169	626,431	60,862	58
2016	—	—	—	—	—	—	702,716	696,339	684,700	660,508	71,710	57
2017	—	—	—	—	—	—	—	762,093	733,505	689,559	107,981	57
2018	—	—	—	—	—	—	—	—	778,964	724,463	153,587	55
2019	—	—	—	—	—	—	—	—	—	783,244	372,381	50
Total										\$ 6,034,851		

Cumulative Paid Claims and Claim Adjustment Expenses, Net of Reinsurance											
For the Year Ended December 31,											
Accident Year	Unaudited										2019
	2010	2011	2012	2013	2014	2015	2016	2017	2018		
2010	\$ 108,675	\$ 215,882	\$ 281,280	\$ 320,154	\$ 344,631	\$ 362,078	\$ 374,013	\$ 382,665	\$ 388,405	\$ 392,672	
2011	—	106,899	236,207	309,509	355,909	385,759	408,304	420,945	428,811	436,905	
2012	—	—	115,536	255,063	339,560	387,368	419,588	437,196	451,991	459,119	
2013	—	—	—	117,900	277,538	363,028	414,160	447,894	466,580	479,104	
2014	—	—	—	—	148,405	319,743	412,611	471,235	503,915	521,141	
2015	—	—	—	—	—	139,320	323,744	421,734	477,541	512,933	
2016	—	—	—	—	—	—	142,998	338,835	446,072	504,850	
2017	—	—	—	—	—	—	—	153,456	362,299	468,817	
2018	—	—	—	—	—	—	—	—	171,006	397,464	
2019	—	—	—	—	—	—	—	—	—	184,715	
Total										\$ 4,357,720	
Reserves for loss and loss adjustment expenses before 2010, net of reinsurance										193,837	
Reserves for loss and loss adjustment expenses, net of reinsurance										\$ 1,870,968	

Professional Liability
(In thousands)

Loss and Loss Expenses Incurred, Net of Reinsurance											As of December 31, 2019	
For the Year Ended December 31,												
Accident Year	Unaudited										IBNR	Cumulative Number of Reported Claims
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
2010	\$ 147,632	\$ 165,689	\$ 179,344	\$ 177,951	\$ 176,653	\$ 172,493	\$ 174,796	\$ 177,757	\$ 182,717	\$ 182,860	\$ 62	4
2011	—	179,818	165,291	187,074	189,988	176,936	173,309	176,606	175,689	176,230	2,187	4
2012	—	—	238,978	242,541	265,690	251,230	239,458	245,945	244,730	245,338	7,091	5
2013	—	—	—	269,993	248,080	243,887	249,797	271,469	280,018	285,262	14,062	6
2014	—	—	—	—	253,992	247,373	260,498	244,454	239,982	258,781	26,194	6
2015	—	—	—	—	—	260,216	258,780	275,608	276,842	292,401	37,634	7
2016	—	—	—	—	—	—	311,099	325,241	361,996	402,929	56,934	8
2017	—	—	—	—	—	—	—	333,758	332,864	339,021	112,457	9
2018	—	—	—	—	—	—	—	—	335,728	322,952	168,475	9
2019	—	—	—	—	—	—	—	—	—	337,228	259,157	9
Total										\$ 2,843,002		

Cumulative Paid Claims and Claim Adjustment Expenses, Net of Reinsurance											
For the Year Ended December 31,											
Accident Year	Unaudited										2019
	2010	2011	2012	2013	2014	2015	2016	2017	2018		
2010	\$ 14,806	\$ 58,851	\$ 108,438	\$ 129,619	\$ 144,336	\$ 160,466	\$ 164,894	\$ 171,206	\$ 178,756	\$ 179,865	
2011	—	18,726	62,305	102,898	134,253	150,487	158,678	166,949	168,526	170,205	
2012	—	—	21,697	86,734	128,245	159,285	190,584	214,821	223,988	232,160	
2013	—	—	—	23,939	63,951	119,567	177,525	207,020	249,005	258,394	
2014	—	—	—	—	19,446	83,694	138,678	176,134	199,337	216,228	
2015	—	—	—	—	—	20,415	85,470	139,835	187,664	216,575	
2016	—	—	—	—	—	—	28,631	102,661	201,854	255,841	
2017	—	—	—	—	—	—	—	36,579	96,456	163,003	
2018	—	—	—	—	—	—	—	—	28,231	99,789	
2019	—	—	—	—	—	—	—	—	—	31,790	
Total										\$ 1,823,850	
Reserves for loss and loss adjustment expenses before 2010, net of reinsurance										15,104	
Reserves for loss and loss adjustment expenses, net of reinsurance										\$ 1,034,256	

Commercial Automobile
(In thousands)

Loss and Loss Expenses Incurred, Net of Reinsurance											As of December 31, 2019	
For the Year Ended December 31,												
Accident Year	Unaudited										IBNR	Cumulative Number of Reported Claims
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
2010	\$ 310,591	\$ 320,098	\$ 330,224	\$ 328,901	\$ 332,748	\$ 331,615	\$ 330,586	\$ 330,297	\$ 329,976	\$ 329,768	\$ 144	37
2011	—	312,224	320,920	328,320	331,732	341,394	341,200	342,094	343,566	343,433	964	37
2012	—	—	314,309	326,831	342,588	355,609	364,084	364,328	366,541	365,806	807	37
2013	—	—	—	327,514	349,136	368,894	376,860	367,264	366,822	365,953	1,592	39
2014	—	—	—	—	363,913	385,251	418,161	416,123	413,589	413,424	4,385	42
2015	—	—	—	—	—	389,660	417,053	423,180	431,376	432,415	7,808	46
2016	—	—	—	—	—	—	431,261	430,911	442,210	443,268	18,162	45
2017	—	—	—	—	—	—	—	430,768	428,708	430,499	31,607	41
2018	—	—	—	—	—	—	—	—	442,788	462,756	67,700	40
2019	—	—	—	—	—	—	—	—	—	483,206	162,432	37
Total										\$ 4,070,528		

Cumulative Paid Claims and Claim Adjustment Expenses, Net of Reinsurance												
For the Year Ended December 31,												
Accident Year	Unaudited										2019	
	2010	2011	2012	2013	2014	2015	2016	2017	2018			
2010	\$ 136,029	\$ 208,790	\$ 263,639	\$ 295,355	\$ 313,262	\$ 324,997	\$ 326,804	\$ 327,240	\$ 327,863	\$	328,006	
2011	—	135,350	211,756	262,685	296,370	321,814	333,987	338,325	340,360		340,799	
2012	—	—	136,844	215,214	273,446	312,342	344,326	355,631	360,681		361,755	
2013	—	—	—	142,929	218,596	267,253	322,441	343,556	353,424		362,152	
2014	—	—	—	—	155,572	237,665	328,125	365,376	394,063		402,013	
2015	—	—	—	—	—	160,024	265,083	324,976	370,037		397,666	
2016	—	—	—	—	—	—	184,516	279,381	341,423		390,359	
2017	—	—	—	—	—	—	—	180,755	267,587		327,135	
2018	—	—	—	—	—	—	—	—	180,162		281,651	
2019	—	—	—	—	—	—	—	—	—		185,344	
Total											\$	3,376,880
Reserves for loss and loss adjustment expenses before 2010, net of reinsurance											4,313	
Reserves for loss and loss adjustment expenses, net of reinsurance											\$	697,961

Short-tail lines
(In thousands)

Loss and Loss Expenses Incurred, Net of Reinsurance											As of December 31, 2019	
For the Year Ended December 31,												
Accident Year	Unaudited										IBNR	Cumulative Number of Reported Claims
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
2010	\$ 385,319	\$ 370,080	\$ 358,254	\$ 355,602	\$ 345,937	\$ 346,380	\$ 346,493	\$ 346,074	\$ 345,777	\$ 345,546	\$ 233	19
2011	—	478,520	471,678	463,253	460,030	457,182	450,325	449,529	451,410	451,064	649	21
2012	—	—	529,564	537,716	538,141	533,491	507,509	506,464	508,354	507,416	2,229	28
2013	—	—	—	576,784	586,382	577,353	553,680	552,192	548,673	546,766	3,405	30
2014	—	—	—	—	707,121	712,320	664,718	663,342	664,169	664,416	4,366	34
2015	—	—	—	—	—	743,454	731,950	728,186	726,748	718,506	10,676	37
2016	—	—	—	—	—	—	773,945	777,270	764,278	758,881	12,383	40
2017	—	—	—	—	—	—	—	753,512	753,803	748,451	18,189	46
2018	—	—	—	—	—	—	—	—	760,474	750,780	33,738	52
2019	—	—	—	—	—	—	—	—	—	726,820	168,528	42
Total										\$ 6,218,646		

Cumulative Paid Claims and Claim Adjustment Expenses, Net of Reinsurance											
For the Year Ended December 31,											
Accident Year	Unaudited										2019
	2010	2011	2012	2013	2014	2015	2016	2017	2018		
2010	\$ 245,037	\$ 325,163	\$ 337,688	\$ 346,622	\$ 340,066	\$ 342,773	\$ 343,899	\$ 344,887	\$ 344,908	\$ 344,989	
2011	—	303,016	417,730	436,718	440,937	445,234	446,944	447,538	450,352	450,439	
2012	—	—	281,830	454,731	504,954	515,520	498,207	499,355	503,614	504,342	
2013	—	—	—	314,122	488,140	536,630	531,474	538,304	539,553	540,158	
2014	—	—	—	—	372,670	599,119	613,530	632,796	648,072	655,332	
2015	—	—	—	—	—	395,440	612,369	668,012	690,037	699,770	
2016	—	—	—	—	—	—	417,424	671,219	712,815	728,122	
2017	—	—	—	—	—	—	—	445,560	690,029	718,949	
2018	—	—	—	—	—	—	—	—	415,206	662,185	
2019	—	—	—	—	—	—	—	—	—	405,213	
Total											\$ 5,709,499
Reserves for loss and loss adjustment expenses before 2010, net of reinsurance										1,019	
Reserves for loss and loss adjustment expenses, net of reinsurance										\$ 510,166	

Reinsurance & Monoline Excess

Casualty (In thousands)

Loss and Loss Expenses Incurred, Net of Reinsurance											As of December 31, 2019	
For the Year Ended December 31,												
Accident Year	Unaudited										2019	IBNR
	2010	2011	2012	2013	2014	2015	2016	2017	2018			
2010	\$ 290,438	\$ 298,265	\$ 288,146	\$ 276,049	\$ 265,455	\$ 256,271	\$ 252,900	\$ 250,596	\$ 249,599	\$ 249,472	\$ 14,322	
2011	—	290,770	309,836	304,352	299,244	307,969	304,780	296,280	292,762	299,130	16,563	
2012	—	—	331,991	335,867	330,882	325,224	333,982	336,492	334,588	331,270	17,481	
2013	—	—	—	319,491	270,382	275,539	285,032	293,686	299,224	303,568	25,073	
2014	—	—	—	—	320,579	320,226	319,573	331,339	325,497	324,941	34,043	
2015	—	—	—	—	—	259,922	232,272	230,856	252,959	293,718	43,622	
2016	—	—	—	—	—	—	241,533	253,501	246,019	268,508	51,973	
2017	—	—	—	—	—	—	—	232,010	221,769	239,788	85,671	
2018	—	—	—	—	—	—	—	—	222,100	211,227	109,087	
2019	—	—	—	—	—	—	—	—	—	237,412	196,623	
Total										\$ 2,759,034		

Cumulative Paid Claims and Claim Adjustment Expenses, Net of Reinsurance												
For the Year Ended December 31,												
Accident Year	Unaudited										2019	
	2010	2011	2012	2013	2014	2015	2016	2017	2018			
2010	\$ 17,814	\$ 45,338	\$ 76,845	\$ 105,912	\$ 128,476	\$ 150,665	\$ 166,361	\$ 181,857	\$ 191,532	\$ 198,822		
2011	—	17,812	52,231	97,476	133,808	169,219	192,724	208,347	220,566	232,452		
2012	—	—	22,329	62,037	111,538	152,590	187,196	219,637	241,318	257,010		
2013	—	—	—	28,910	63,718	110,306	144,405	178,174	205,716	226,083		
2014	—	—	—	—	21,280	68,992	115,873	155,207	198,196	227,684		
2015	—	—	—	—	—	17,866	48,445	91,198	141,348	178,657		
2016	—	—	—	—	—	—	19,895	61,787	100,262	140,411		
2017	—	—	—	—	—	—	—	16,473	40,138	69,465		
2018	—	—	—	—	—	—	—	—	11,092	41,018		
2019	—	—	—	—	—	—	—	—	—	14,574		
Total										\$ 1,586,176		
Reserves for loss and loss adjustment expenses before 2010, net of reinsurance										383,199		
Reserves for loss and loss adjustment expenses, net of reinsurance										\$ 1,556,057		

**Monoline Excess
(In thousands)**

Loss and Loss Expenses Incurred, Net of Reinsurance											As of December 31, 2019
For the Year Ended December 31,											
Accident Year	Unaudited										IBNR
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
2010	\$ 135,639	\$ 123,497	\$ 120,272	\$ 118,712	\$ 102,424	\$ 104,732	\$ 100,065	\$ 94,986	\$ 95,374	\$ 99,944	\$ 15,731
2011	—	88,650	93,993	98,051	89,031	85,299	83,850	78,246	74,109	72,091	14,075
2012	—	—	72,366	73,230	73,670	73,653	72,441	67,878	69,361	67,205	11,249
2013	—	—	—	63,995	50,355	46,025	42,419	38,551	35,120	31,752	12,626
2014	—	—	—	—	63,561	57,558	49,478	45,758	41,671	42,541	15,347
2015	—	—	—	—	—	69,977	57,897	50,099	45,115	39,682	19,040
2016	—	—	—	—	—	—	72,657	70,281	71,404	64,957	23,676
2017	—	—	—	—	—	—	—	76,701	80,508	70,749	29,999
2018	—	—	—	—	—	—	—	—	77,820	72,505	36,930
2019	—	—	—	—	—	—	—	—	—	78,929	48,526
Total										\$ 640,355	

Cumulative Paid Claims and Claim Adjustment Expenses, Net of Reinsurance											
For the Year Ended December 31,											
Accident Year	Unaudited										2019
	2010	2011	2012	2013	2014	2015	2016	2017	2018		
2010	\$ 2,867	\$ 4,003	\$ 5,571	\$ 8,701	\$ 11,260	\$ 11,699	\$ 14,261	\$ 18,821	\$ 22,355	\$ 28,431	
2011	—	2,593	4,848	6,395	14,042	15,684	18,638	20,164	21,463	23,686	
2012	—	—	1,127	6,097	10,815	11,167	13,234	15,738	17,982	20,004	
2013	—	—	—	647	1,897	2,158	3,008	3,396	4,418	5,349	
2014	—	—	—	—	377	1,729	3,354	4,175	5,808	7,595	
2015	—	—	—	—	—	2,069	2,481	3,272	4,099	4,416	
2016	—	—	—	—	—	—	2,498	4,783	5,573	5,928	
2017	—	—	—	—	—	—	—	6,282	12,810	15,356	
2018	—	—	—	—	—	—	—	—	6,141	8,230	
2019	—	—	—	—	—	—	—	—	—	6,241	
Total										\$ 125,236	
Reserves for loss and loss adjustment expenses before 2010, net of reinsurance										765,323	
Reserves for loss and loss adjustment expenses, net of reinsurance										\$ 1,280,442	

Property
(In thousands)

Loss and Loss Expenses Incurred, Net of Reinsurance											As of December 31, 2019	
For the Year Ended December 31,												
Accident Year	Unaudited										2019	IBNR
	2010	2011	2012	2013	2014	2015	2016	2017	2018			
2010	\$ 58,367	\$ 55,399	\$ 52,306	\$ 51,186	\$ 51,230	\$ 50,694	\$ 50,571	\$ 50,398	\$ 50,630	\$ 50,362	\$ 208	
2011	—	95,201	87,837	84,914	86,326	84,791	84,522	84,246	84,651	84,432	490	
2012	—	—	103,833	94,661	86,330	85,334	83,814	83,822	84,746	84,555	1,032	
2013	—	—	—	141,563	112,684	114,123	111,945	112,579	111,895	109,699	643	
2014	—	—	—	—	113,126	96,636	97,279	100,011	99,250	98,912	1,685	
2015	—	—	—	—	—	127,259	117,563	131,755	130,391	129,492	2,478	
2016	—	—	—	—	—	—	168,129	174,570	181,757	181,002	4,891	
2017	—	—	—	—	—	—	—	206,672	200,510	199,497	11,224	
2018	—	—	—	—	—	—	—	—	108,342	112,152	19,159	
2019	—	—	—	—	—	—	—	—	—	103,240	52,334	
Total										\$ 1,153,343		
Cumulative Paid Claims and Claim Adjustment Expenses, Net of Reinsurance												
For the Year Ended December 31,												
Accident Year	Unaudited										2019	
	2010	2011	2012	2013	2014	2015	2016	2017	2018			
2010	\$ 23,424	\$ 37,483	\$ 42,153	\$ 43,634	\$ 44,550	\$ 46,141	\$ 48,745	\$ 49,001	\$ 49,749	\$ 49,690		
2011	—	31,402	58,702	73,142	75,778	78,357	81,560	82,094	83,169	83,250		
2012	—	—	15,663	51,641	64,098	70,524	77,412	78,971	81,673	82,541		
2013	—	—	—	36,578	74,573	92,619	101,539	104,326	106,045	107,606		
2014	—	—	—	—	38,803	66,869	82,172	88,317	91,452	93,160		
2015	—	—	—	—	—	53,477	89,153	109,090	118,603	122,621		
2016	—	—	—	—	—	—	78,936	133,576	157,491	168,605		
2017	—	—	—	—	—	—	—	72,132	141,389	171,745		
2018	—	—	—	—	—	—	—	—	34,004	65,193		
2019	—	—	—	—	—	—	—	—	—	23,051		
Total										\$ 967,462		
Reserves for loss and loss adjustment expenses before 2010, net of reinsurance										798		
Reserves for loss and loss adjustment expenses, net of reinsurance										\$ 186,679		

The reconciliation of the net incurred and paid claims development tables to the reserves for losses and loss expenses in the consolidated balance sheet is as follows:

(In thousands)	December 31, 2019
Undiscounted reserves for loss and loss expenses, net of reinsurance:	
Other liability	\$ 3,998,511
Workers' compensation	1,870,968
Professional liability	1,034,256
Commercial automobile	697,961
Short-tail lines	510,166
Other	92,495
Insurance	8,204,357
Casualty	1,556,057
Monoline excess	1,280,442
Property	186,679
Reinsurance & Monoline Excess	3,023,178
Total undiscounted reserves for loss and loss expenses, net of reinsurance	<u>\$ 11,227,535</u>

(In thousands)	December 31, 2019
Due from reinsurers on unpaid claims:	
Other liability	\$ 518,759
Workers' compensation	300,966
Professional liability	509,828
Commercial automobile	24,486
Short-tail lines	243,333
Other	46,197
Insurance	1,643,569
Casualty	113,332
Monoline excess	38,384
Property	89,966
Reinsurance & Monoline Excess	241,682
Total due from reinsurers on unpaid claims	<u>\$ 1,885,251</u>

(In thousands)		December 31, 2019
Loss reserve discount:		
	Other liability	\$ —
	Workers' compensation	(10,976)
	Professional liability	—
	Commercial automobile	—
	Short-tail lines	—
	Other	—
	Insurance	(10,976)
	Casualty	(107,929)
	Monoline excess	(410,632)
	Property	—
	Reinsurance & Monoline Excess	(518,561)
Total loss reserve discount		\$ (529,537)
Total gross reserves for loss and loss expenses		\$ 12,583,249

The following is supplementary information regarding average historical claims duration as of December 31, 2019:

Insurance

Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Other liability	7.8%	14.4%	18.4%	16.6%	14.0%	8.6%	5.4%	3.4%	2.9%	1.5%
Workers' compensation	23.1%	28.7%	15.8%	9.3%	6.0%	3.7%	2.7%	1.7%	1.5%	1.0%
Professional liability	8.7%	21.6%	21.3%	15.2%	9.9%	8.9%	3.5%	2.6%	3.8%	0.6%
Commercial automobile	39.3%	21.6%	15.5%	10.8%	6.8%	3.0%	1.4%	0.3%	0.2%	—%
Short-tail lines	58.8%	30.9%	5.7%	1.8%	0.1%	0.5%	0.4%	0.4%	—%	—%

Reinsurance & Monoline Excess

Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance

Years	1	2	3	4	5	6	7	8	9	10
Casualty	6.8%	12.3%	14.2%	13.1%	11.4%	8.9%	6.2%	5.0%	3.9%	2.9%
Monoline excess	4.5%	3.9%	2.8%	3.1%	2.3%	3.1%	2.7%	3.1%	3.3%	6.1%
Property	34.9%	31.8%	14.6%	5.9%	3.6%	2.4%	2.6%	0.9%	0.8%	—%

The table below provides a reconciliation of the beginning and ending reserve balances:

(In thousands)	2019	2018	2017
Net reserves at beginning of year	\$ 10,248,883	\$ 10,056,914	\$ 9,590,265
Net provision for losses and loss expenses:			
Claims occurring during the current year (1)	4,057,989	3,926,489	3,963,543
Increase (decrease) in estimates for claims occurring in prior years (2)	34,079	6,831	(5,165)
Loss reserve discount accretion	39,048	41,382	43,970
Total	4,131,116	3,974,702	4,002,348
Net payments for claims:			
Current year	985,599	964,808	1,027,405
Prior year	2,673,803	2,700,077	2,562,550
Total	3,659,402	3,664,885	3,589,955
Foreign currency translation	(22,599)	(117,848)	54,256
Net reserves at end of year	10,697,998	10,248,883	10,056,914
Ceded reserve at end of year	1,885,251	1,717,565	1,613,494
Gross reserves at end of year	\$ 12,583,249	\$ 11,966,448	\$ 11,670,408
Net change in premiums and losses occurring in prior years:			
(Increase) decrease in estimates for claims occurring in prior years (2)	\$ (34,079)	\$ (6,831)	\$ 5,165
Retrospective premium adjustments for claims occurring in prior years (3)	53,511	45,638	32,162
Net favorable premium and reserve development on prior years	\$ 19,432	\$ 38,807	\$ 37,327

- (1) Claims occurring during the current year are net of loss reserve discounts of \$20 million, \$24 million and \$22 million in 2019, 2018, and 2017, respectively.
- (2) The change in estimates for claims occurring in prior years is net of loss reserve discount. On an undiscounted basis, the estimates for claims occurring in prior years increased by \$19 million in 2019, and decreased \$4 million and \$32 million in 2018 and 2017, respectively.
- (3) For certain retrospectively rated insurance policies and reinsurance agreements, changes in loss and loss expenses for prior years are offset by additional or return premiums.

Favorable prior year development (net of additional and return premiums) was \$19 million in 2019.

Insurance - Reserves for the Insurance segment developed favorably by \$21 million in 2019 (net of additional and return premiums). This overall favorable development resulted from more significant favorable development on workers' compensation business, which was largely offset by unfavorable development on professional liability and general liability business.

For workers' compensation, the favorable development was spread across many accident years, including prior to 2010, but was most significant in accident years 2014 through 2018, and particularly 2017 and 2018. The favorable workers' compensation development reflects a continuation during 2019 of the benign loss cost trends experienced during recent years, particularly the favorable claim frequency trends (i.e., number of reported claims per unit of exposure). The long term trend of declining workers' compensation frequency can be attributable to improved workplace safety. Loss severity trends were also aided by our continued investment in claims handling initiatives such as medical case management services and vendor savings through usage of preferred provider networks and pharmacy benefit managers. Our initial loss ratio "picks" for this line of business over the past few accident years have contemplated an increase in loss cost trends and reflect decreasing premium rates in the marketplace; reported workers' compensation losses in 2019 continued to be below our expectations at most of our operating units, and were below the assumptions underlying our initial loss ratio picks and our previous reserve estimates.

For professional liability business, the unfavorable development was driven mainly by an increase in the number of large losses reported in the lawyers professional liability and directors and officers ("D&O") liability lines of business. Many of the lawyers large losses involved claims made against insured law firms relating to work performed on matters stemming from the 2008 financial crisis. These claims affected mainly accident years 2013 through 2016. In addition, for both of these lines of business, we

have seen evidence of social inflation in the form of higher jury awards on cases which go to trial, and corresponding higher demands from plaintiffs and higher values required to reach settlement on cases which do not go to trial. The unfavorable development for D&O affected mainly accident years 2014 through 2017.

For general liability business, most of the unfavorable development emanated from our excess and surplus lines (E&S) businesses, and was driven by an increase in the number of large losses reported. Many of these large losses were from construction and contracting classes of business, which have also been impacted by social inflation. The general liability unfavorable development impacted mainly accident years 2015 through 2018.

Reinsurance & Monoline Excess - Reserves for the Reinsurance & Monoline Excess segment developed unfavorably by \$2 million in 2019. The unfavorable development in the segment was driven by non-proportional assumed liability business in both the U.S. and U.K., and was largely offset by favorable development on excess workers' compensation business. The unfavorable non-proportional assumed liability development was concentrated in accident years 2015 through 2018, and included an adjustment for the Ogden discount rate in the U.K.

Favorable prior year development (net of additional and return premiums) was \$39 million in 2018.

Insurance - Reserves for the Insurance segment developed favorably by \$19 million in 2018. The favorable development was primarily attributable to workers' compensation business, and was partially offset by unfavorable development for professional liability business.

For workers' compensation, the favorable development was spread across many accident years, but was most significant in accident years 2015 through 2017. The favorable workers' compensation development reflects a continuation during 2018 of the benign loss cost trends experienced during recent years, particularly the favorable claim frequency trends (i.e., number of reported claims per unit of exposure). The long term trend of declining workers' compensation frequency can be attributable to improved workplace safety. Loss severity trends were also aided by our continued investment in claims handling initiatives such as medical case management services and vendor savings through usage of preferred provider networks. Reported workers' compensation losses in 2018 continued to be below our expectations at most of our operating units, and were below the assumptions underlying our previous reserve estimates.

For professional liability business, adverse development was primarily related to unexpected large directors and officers ("D&O") liability losses at one of our U.S. operating units, as well as lawyers professional liability losses at another operating unit. The adverse development stemmed primarily from accident years 2015 and 2016, and was driven by a higher frequency of large losses than we had experienced in previous years.

Reinsurance & Monoline Excess - Reserves for the Reinsurance & Monoline Excess segment developed favorably by \$20 million in 2018. The favorable development was primarily due to excess workers' compensation business, and was spread across many accident years, including years prior to 2009. This favorable excess workers' compensation development was partially offset by unfavorable development on U.S. casualty facultative assumed business from accident years 2009 and prior related to construction projects.

Favorable prior year development (net of additional and return premiums) was \$37 million in 2017.

Insurance - Reserves for the Insurance segment developed favorably by \$30 million in 2017. The favorable development was primarily attributable to workers' compensation business, and was partially offset by unfavorable development for professional liability business.

For workers' compensation, the favorable development was spread across many accident years but was most significant in accident years 2014 through 2016. The favorable workers' compensation development reflects a continuation during 2017 of the benign loss cost trends experienced in recent years, particularly the favorable claim frequency trends (i.e., number of reported claims per unit of exposure). Reported workers' compensation losses in 2017 continued to be below our expectations at most of our operating units, and were below the assumptions underlying our previous reserve estimates. The favorable severity trends were also impacted by our continued investment in medical case management services and the higher usage of preferred provider networks. The long term trend of declining workers' compensation frequency can be attributed to improved workplace safety.

For professional liability business, adverse development was primarily related to unexpected large directors and officers ("D&O") liability losses at one of our U.S. operating units, and large professional indemnity and D&O losses in the U.K. The adverse development stemmed mainly from accident years 2013 through 2016 in the U.S. and 2011 through 2016 in the U.K.

Reinsurance & Monoline Excess - Reserves for the Reinsurance & Monoline Excess segment developed favorably by \$7 million in 2017. This favorable development was primarily due to excess workers' compensation business, and was spread across

many accident years, including years prior to 2008. The favorable excess workers' compensation development resulted due to the same causes discussed above for workers' compensation in the Insurance segment.

The favorable excess workers' compensation development was largely offset by adverse development on U.K. assumed casualty reinsurance, as well as on U.S. facultative casualty excess of loss business. The adverse development on the U.K. casualty reinsurance was due to reserve strengthening associated with claims impacted by the change in the Ogden discount rate in the U.K. The Ogden rate is the discount rate used to calculate lump-sum bodily injury payouts in the U.K., and was reduced by the U.K. Ministry of Justice from +2.5% to -0.75%; the adverse development mostly related to U.K. motor bodily injury claims which we reinsured on an excess of loss basis in accident years 2012 through 2016. The adverse development on U.S. facultative casualty business was due to construction related risks in accident years 2008 and prior.

Environmental and Asbestos — To date, known environmental and asbestos claims have not had a material impact on the Company's operations, because its subsidiaries generally did not insure large industrial companies that are subject to significant environmental or asbestos exposures prior to 1986 when an absolute exclusion was incorporated into standard policy language.

The Company's net reserves for losses and loss expenses relating to asbestos and environmental claims on policies written before adoption of the absolute exclusion was \$24 million at December 31, 2019 and \$28 million at December 31, 2018. The estimation of these liabilities is subject to significantly greater than normal variation and uncertainty because it is difficult to make an actuarial estimate of these liabilities due to the absence of a generally accepted actuarial methodology for these exposures and the potential effect of significant unresolved legal matters, including coverage issues, as well as the cost of litigating the legal issues. Additionally, the determination of ultimate damages and the final allocation of such damages to financially responsible parties are highly uncertain.

Discounting — The Company discounts its liabilities for certain workers' compensation reserves. The amount of workers' compensation reserves that were discounted was \$1,731 million and \$1,793 million at December 31, 2019 and 2018, respectively. The aggregate net discount for those reserves, after reflecting the effects of ceded reinsurance, was \$530 million and \$563 million at December 31, 2019 and 2018, respectively. At December 31, 2019, discount rates by year ranged from 2.0% to 6.5%, with a weighted average discount rate of 3.7%.

Substantially all discounted workers' compensation reserves (97% of total discounted reserves at December 31, 2019) are excess workers' compensation reserves. In order to properly match loss expenses with income earned on investment securities supporting the liabilities, reserves for excess workers' compensation business are discounted using risk-free discount rates determined by reference to the U.S. Treasury yield curve. These rates are determined annually based on the weighted average rate for the period. Once established, no adjustments are made to the discount rate for that period, and any increases or decreases in loss reserves in subsequent years are discounted at the same rate, without regard to when any such adjustments are recognized. The expected loss and loss expense payout patterns subject to discounting are derived from the Company's loss payout experience.

The Company also discounts reserves for certain other long-duration workers' compensation reserves (representing approximately 3% of total discounted reserves at December 31, 2019), including reserves for quota share reinsurance and reserves related to losses regarding occupational lung disease. These reserves are discounted at statutory rates prescribed or permitted by the Department of Insurance of the State of Delaware.

(14) Reinsurance

The Company reinsures a portion of its insurance exposures in order to reduce its net liability on individual risks and catastrophe losses. Reinsurance coverage and retentions vary depending on the line of business, location of the risk and nature of loss. The Company's reinsurance purchases include the following: property reinsurance treaties that reduce exposure to large individual property losses and catastrophe events; casualty reinsurance treaties that reduce its exposure to large individual casualty losses, workers' compensation catastrophe losses and casualty losses involving multiple claimants or insureds; and facultative reinsurance that reduces exposure on individual policies or risks for losses that exceed treaty reinsurance capacity. Depending on the operating unit, the Company purchases specific additional reinsurance to supplement the above programs.

The following is a summary of reinsurance financial information:

(In thousands)	2019	2018	2017
Written premiums:			
Direct	\$ 7,386,759	\$ 6,973,216	\$ 6,726,029
Assumed	875,459	729,278	750,934
Ceded	(1,398,719)	(1,269,267)	(1,216,455)
Total net written premiums	\$ 6,863,499	\$ 6,433,227	\$ 6,260,508
Earned premiums:			
Direct	\$ 7,141,427	\$ 6,851,795	\$ 6,661,046
Assumed	820,705	755,759	812,309
Ceded	(1,328,844)	(1,236,049)	(1,161,936)
Total net earned premiums	\$ 6,633,288	\$ 6,371,505	\$ 6,311,419
Ceded losses and loss expenses incurred	\$ 836,831	\$ 829,742	\$ 601,769
Ceded commission earned	\$ 314,191	\$ 268,037	\$ 241,983

The Company reinsures a portion of its exposures principally to reduce its net liability on individual risks and to protect against catastrophic losses. Estimated amounts due from reinsurers are reported net of reserves for uncollectible reinsurance of \$690,127, \$946,965 and \$1,010,000 as of December 31, 2019, 2018 and 2017, respectively.

The following table presents the amounts due from reinsurers as of December 31, 2019:

(In thousands)

Munich Re	\$	243,021
Lloyd's of London		201,092
Swiss Re		179,274
Alleghany Group		169,185
Partner Re		127,638
Hannover Re Group		95,486
Axis Capital		93,547
Berkshire Hathaway		82,882
Renaissance Re		79,954
Korean Re		64,464
Everest Re		55,431
Liberty Mutual		49,346
Arch Capital Group		27,116
Qatar Re		22,477
Chubb Limited		15,199
Other reinsurers less than \$20,000		308,404
Subtotal		1,814,515
Residual market pools		319,168
Total	\$	<u>2,133,683</u>

(15) Indebtedness

Indebtedness consisted of the following as of December 31, 2019 (the difference between the face value and the carrying value is unamortized discount and debt issuance costs):

(In thousands)	Interest Rate	Face Value	Carrying Value	
			2019	2018
Senior notes due on:				
August 15, 2019	6.15%	\$ —	\$ —	\$ 140,568
September 15, 2019	7.375%	—	—	299,816
September 15, 2020	5.375%	300,000	299,756	299,420
January 1, 2022	8.7%	76,503	76,343	76,273
March 15, 2022	4.625%	350,000	349,088	348,670
February 15, 2037	6.25%	250,000	248,116	248,006
August 1, 2044	4.75%	350,000	345,467	345,283
Subsidiary debt (1) (2)	Various	108,804	108,805	123,992
Total senior notes and other debt		\$ 1,435,307	\$ 1,427,575	\$ 1,882,028
Subordinated debentures due on:				
April 30, 2053	5.625%	\$ 350,000	\$ 341,356	\$ 341,097
March 1, 2056	5.9%	110,000	106,262	106,159
June 1, 2056	5.75%	290,000	281,777	281,551
March 30, 2058	5.70%	185,000	178,845	178,684
December 30, 2059	5.1%	300,000	290,464	—
Total subordinated debentures		\$ 1,235,000	\$ 1,198,704	\$ 907,491

(1) Subsidiary debt is due as follows: \$6 million in 2020, \$1 million in 2021, and \$102 million in 2028.

(2) Includes non-recourse loan in the amount of \$102 million secured by an office building. See Note 8, Real Estate, for more details.

(16) Income Taxes

Income tax expense (benefit) consists of:

(In thousands)	Current Expense	Deferred Expense (Benefit)	Total
December 31, 2019			
Domestic	\$ 124,231	\$ 27,616	\$ 151,847
Foreign	9,030	8,058	17,088
Total expense	<u>\$ 133,261</u>	<u>\$ 35,674</u>	<u>\$ 168,935</u>
December 31, 2018			
Domestic	\$ 188,712	\$ (63,134)	\$ 125,578
Foreign	13,963	23,487	37,450
Total expense (benefit)	<u>\$ 202,675</u>	<u>\$ (39,647)</u>	<u>\$ 163,028</u>
December 31, 2017			
Domestic	\$ 225,694	\$ (27,601)	\$ 198,093
Foreign	8,803	12,537	21,340
Total expense (benefit)	<u>\$ 234,497</u>	<u>\$ (15,064)</u>	<u>\$ 219,433</u>

Income before income taxes from domestic operations was \$739 million, \$755 million and \$797 million for the years ended December 31, 2019, 2018 and 2017, respectively. Income (loss) before income taxes from foreign operations was \$114 million, \$57 million and \$(25) million for the years ended December 31, 2019, 2018 and 2017, respectively.

A reconciliation of the income tax expense and the amounts computed by applying the Federal and foreign income tax rate of 21% for 2019 and 2018 and 35% for 2017 to pre-tax income are as follows:

(In thousands)	2019	2018	2017
Computed “expected” tax expense	\$ 179,113	\$ 170,540	\$ 270,470
Tax-exempt investment income	(14,666)	(18,833)	(37,209)
Change in valuation allowance	(1,945)	18,576	11,161
Impact of foreign tax rates	7,700	7,683	3,508
State and local taxes	4,842	3,901	1,644
Impact of change in U.S. tax rate	—	(10,950)	(30,531)
Other, net	(6,109)	(7,889)	390
Total expense	<u>\$ 168,935</u>	<u>\$ 163,028</u>	<u>\$ 219,433</u>

At December 31, 2019 and 2018, the tax effects of differences that give rise to significant portions of the deferred tax asset and deferred tax liability are as follows:

(In thousands)	2019	2018
Deferred tax asset:		
Loss reserve discounting	\$ 136,100	\$ 130,513
Unearned premiums	120,246	112,190
Net operating losses	37,147	37,463
Other-than-temporary impairments	8,049	9,910
Employee compensation plans	60,552	56,027
Other	63,633	58,809
Gross deferred tax asset	425,727	404,912
Less valuation allowance	(33,250)	(35,195)
Deferred tax asset	392,477	369,717
Deferred tax liability:		
Amortization of intangibles	12,832	13,641
Loss reserve discounting - transition rule	29,697	41,088
Deferred policy acquisition costs	103,947	99,293
Unrealized investment gains	93,330	35,430
Property, furniture and equipment	47,082	39,239
Investment funds	73,083	51,712
Other	50,212	53,824
Deferred tax liability	410,183	334,227
Net deferred tax liability (asset)	\$ 17,706	\$ (35,490)

The Company had a current tax receivable of \$13.4 million and \$0.7 million at December 31, 2019 and 2018, respectively. At December 31, 2019, the Company had foreign net operating loss carryforwards of \$9.0 million that expire beginning in 2027, and an additional \$169.0 million that have no expiration date. At December 31, 2019, the Company had a valuation allowance of \$33.3 million, as compared to \$35.2 million at December 31, 2018. The Company has provided a valuation allowance against the utilization of foreign tax credits and the future net operating loss carryforward benefits of certain foreign operations. The statute of limitations has closed for the Company's U.S. Federal tax returns through December 31, 2013.

The realization of the deferred tax asset is dependent upon the Company's ability to generate sufficient taxable income in future periods. Based on historical results and the prospects for future current operations, management anticipates that it is more likely than not that future taxable income will be sufficient for the realization of this asset.

The Tax Cuts and Jobs Act of 2017 (the "Tax Act") provided for a reduction of the U.S. corporate income tax rate from 35% to 21% effective January 1, 2018. The U.S. tax law requires insurance reserves to be discounted for tax purposes. The Tax Act modified this computation. At the end of 2018, the IRS issued revised discount factors to be applied to the 2017 reserves. During 2019, the IRS updated the revised discount factors. This modified the increase in the beginning of year 2018 deferred tax asset for loss reserve discounting to \$40 million. Under the related transition rule, a deferred tax liability was established which will be included in taxable income over eight years beginning in 2018.

The Company has not provided U.S. deferred income taxes on the undistributed earnings of approximately \$124 million of its non-U.S. subsidiaries since these earnings are intended to be permanently reinvested in the non-U.S. subsidiaries. In the future, if such earnings were distributed the Company projects that the incremental tax, if any, will be immaterial.

(17) Dividends from Subsidiaries and Statutory Financial Information

The Company's insurance subsidiaries are restricted by law as to the amount of dividends they may pay without the approval of regulatory authorities. The Company's lead insurer, Berkley Insurance Company ("BIC"), directly or indirectly owns all of the Company's other insurance companies. During 2020, the maximum amount of dividends that can be paid by BIC without such approval is approximately \$601 million.

BIC's combined net income and statutory capital and surplus, as determined in accordance with statutory accounting practices ("SAP"), are as follows:

(In thousands)	2019	2018	2017
Net income	\$ 601,564	\$ 1,099,953	\$ 698,862
Statutory capital and surplus	\$ 6,013,062	\$ 5,587,930	\$ 5,479,603

The significant variances between SAP and GAAP are that for statutory purposes bonds are carried at amortized cost, unrealized gains and losses on equity securities are recorded in surplus, acquisition costs are charged to income as incurred, deferred Federal income taxes are subject to limitations, excess and assumed workers' compensation reserves are discounted at different discount rates and certain assets designated as "non-admitted assets" are charged against surplus. The Commissioner of Insurance of the State of Delaware has allowed BIC to recognize a non-tabular discount on certain workers' compensation loss reserves, which is a permitted practice that differs from SAP. The effect of using this permitted practice was an increase to BIC's statutory capital and surplus by \$268 million at December 31, 2019.

The National Association of Insurance Commissioners ("NAIC") has risk-based capital ("RBC") requirements that require insurance companies to calculate and report information under a risk-based formula which measures statutory capital and surplus needs based on a regulatory definition of risk in a company's mix of products and its balance sheet. This guidance is used to calculate two capital measurements: Total Adjusted Capital and RBC Authorized Control Level. Total Adjusted Capital is equal to the Company's statutory capital and surplus excluding capital and surplus derived from the use of permitted practices that differ from statutory accounting practices. RBC Authorized Control Level is the capital level used by regulatory authorities to determine whether remedial action is required. Generally, no remedial action is required if Total Adjusted Capital is 200% or more of the RBC Authorized Control Level. At December 31, 2019, BIC's Total Adjusted Capital of \$5.746 billion was 396% of its RBC Authorized Control Level.

See Note 3, Investments in Fixed Maturity Securities, for a description of assets held on deposit as security.

(18) Common Stockholders' Equity

The weighted average number of shares used in the computation of net income per share was as follows:

(In thousands)	2019	2018	2017
Basic	190,722	190,048	187,265
Diluted	193,521	192,395	193,527

Treasury shares have been excluded from average outstanding shares from the date of acquisition. The weighted average number of basic shares outstanding includes the impact of 7,575,168 common shares held in a grantor trust. The common shares held in the grantor trust are for delivery upon settlement of vested but mandatorily deferred restricted stock units ("RSUs"). Shares held by the grantor trust do not affect diluted shares outstanding since shares deliverable under vested RSUs were already included in diluted shares outstanding. The difference in calculating basic and diluted net income per share is attributable entirely to the dilutive effect of stock-based compensation plans. Changes in shares of common stock outstanding, net of treasury shares, are presented below. Shares of common stock issued and outstanding do not include shares related to unissued restricted stock units (including shares held in the grantor trust).

	2019	2018	2017
Balance, beginning of year	182,993,640	182,272,278	181,790,399
Shares issued	687,339	1,257,762	1,578,384
Shares repurchased	(269,072)	(536,400)	(1,096,505)
Balance, end of year	183,411,907	182,993,640	182,272,278

The amount of dividends paid is dependent upon factors such as the receipt of dividends from our subsidiaries, our results of operations, cash flow, financial condition and business needs, the capital and surplus requirements of our subsidiaries, and applicable insurance regulations that limit the amount of dividends that may be paid by our regulated insurance subsidiaries.

(19) Fair Value of Financial Instruments

The following table presents the carrying amounts and estimated fair values of the Company's financial instruments as of December 31, 2019 and 2018:

(In thousands)	2019		2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Assets:				
Fixed maturity securities	\$ 14,180,961	\$ 14,194,955	\$ 13,606,812	\$ 13,619,620
Equity securities	480,620	480,620	279,006	279,006
Arbitrage trading account	400,809	400,809	452,548	452,548
Loans receivable	91,799	94,613	94,813	97,073
Cash and cash equivalents	1,023,710	1,023,710	817,602	817,602
Trading accounts receivable from brokers and clearing organizations	423,543	423,543	347,228	347,228
Liabilities:				
Due to broker	27,116	27,116	20,144	20,144
Trading account securities sold but not yet purchased	36,143	36,143	38,120	38,120
Senior notes and other debt	1,427,575	1,582,290	1,882,028	1,968,996
Subordinated debentures	1,198,704	1,274,088	907,491	840,002

The estimated fair values of the Company's fixed maturity securities, equity securities available for sale and arbitrage trading account securities are based on various valuation techniques that rely on fair value measurements as described in Note 12 above. The fair value of loans receivable is estimated by using current institutional purchaser yield requirements for loans with similar credit characteristics, which is considered a Level 2 input. The fair value of the senior notes and other debt and the subordinated debentures is based on spreads for similar securities, which is considered a Level 2 input.

(20) Commitments, Litigation and Contingent Liabilities

In the ordinary course of business, the Company is subject to disputes, litigation and arbitration arising from its insurance and reinsurance businesses. These matters are generally related to insurance and reinsurance claims and are considered in the establishment of loss and loss expense reserves. In addition, the Company may also become involved in legal actions which seek extra-contractual damages, punitive damages or penalties, including claims alleging bad faith in handling of insurance claims. The Company expects its ultimate liability with respect to such matters will not be material to its financial condition. However, adverse outcomes on such matters are possible, from time to time, and could be material to the Company's results of operations in any particular financial reporting period.

At December 31, 2019, the Company had commitments to invest up to \$232 million and \$114 million in certain investment funds and real estate construction projects, respectively.

(21) Leases

As described in Note 1, the Company prospectively adopted ASU 2016-02, Leases, effective January 1, 2019, which requires lessees to recognize a right-of-use asset and a lease liability for leases with terms of more than 12 months on the balance sheet. All leases disclosed within this note are classified as operating leases. Recognized right-of-use asset and lease liability are reported within other assets and other liabilities, respectively, in the consolidated balance sheet. Lease expense is reported in other operating costs and expenses in the consolidated statement of income and accounted for on a straight-line basis over the lease term.

To determine the discount rate used to calculate present value of future minimum lease payments, the Company uses its incremental borrowing rate during the lease commencement period in line with the respective lease duration. In certain cases, the Company has the option to renew the lease. Lease renewal future payments are included in the present value of the future minimum lease payments when the Company determines it is reasonably certain to renew.

The main leases entered into by the Company are for office space used by the Company's operating units across the world. Additionally, the Company, to a lesser extent, has equipment leases mainly for office equipment. Further information relating to operating lease expense and other operating lease information is as follows:

	Twelve Months Ended December 31, 2019
(In thousands)	
Leases:	
Lease cost	\$ 44,107
Cash paid for amounts included in the measurement of lease liabilities reported in operating cash flows	\$ 40,083
Right-of-use assets obtained in exchange for new lease liabilities	\$ 32,881
(\$ in thousands)	
December 31, 2019	
Right-of-use assets	\$ 193,311
Lease liabilities	\$ 230,338
Weighted-average remaining lease term	7.11 years
Weighted-average discount rate	5.97%

Contractual maturities of the Company's future minimum lease payments are as follows:

(In thousands)	December 31, 2019
Contractual Maturities:	
2020	\$ 49,293
2021	47,107
2022	41,652
2023	37,510
2024	31,152
Thereafter	78,820
Total undiscounted future minimum lease payments	285,534
Less: Discount impact	(55,196)
Total lease liability	<u>\$ 230,338</u>

(22) Stock Incentive Plan

Pursuant to the Company's stock incentive plan, the Company may issue restricted stock units ("RSUs") to employees of the Company and its subsidiaries. The RSUs generally vest three to five years from the award date and are subject to other vesting and forfeiture provisions contained in the award agreement. The following table summarizes RSU information for the three years ended December 31, 2019:

	2019	2018	2017
RSUs granted and unvested at beginning of period:	5,062,661	5,216,972	7,293,147
Granted	840,796	1,140,048	1,283,976
Vested	(1,447,522)	(900,254)	(2,990,261)
Canceled	(331,675)	(394,105)	(369,890)
RSUs granted and unvested at end of period:	<u>4,124,260</u>	<u>5,062,661</u>	<u>5,216,972</u>

Upon vesting, shares of the Company's common stock equal to the number of vested RSUs are issued or deferred to a later date, depending on the terms of the specific award agreement. As of December 31, 2019, 7,532,977 RSUs had been deferred. RSUs that have not yet vested and vested RSUs that have been deferred are not considered to be issued and outstanding shares.

The fair value of RSUs at the date of grant are recorded as unearned compensation, a component of stockholders' equity, and expensed over the vesting period. Following is a summary of changes in unearned compensation for the three years ended December 31, 2019:

(In thousands)	2019	2018	2017
Unearned compensation at beginning of year	\$ 129,669	\$ 122,910	\$ 115,965
RSUs granted, net of cancellations	53,583	52,204	52,897
RSUs expensed	(47,329)	(34,408)	(38,796)
RSUs forfeitures	(7,533)	(11,037)	(7,156)
Unearned compensation at end of year	<u>\$ 128,390</u>	<u>\$ 129,669</u>	<u>\$ 122,910</u>

(23) Compensation Plans

The Company and its subsidiaries have profit sharing plans in which substantially all employees participate. The plans provide for minimum annual contributions of 5% of eligible compensation; contributions above the minimum are discretionary and vary with each participating operating unit's profitability. Employees become eligible to participate in the plan on the first day of the calendar quarter following the first full calendar quarter after the employee's date of hire provided the employee has completed 250 hours of service during the calendar quarter. The plans provide that 40% of the contributions vest immediately and that the remaining 60% vest at varying percentages based upon years of service. Profit sharing expense was \$47 million, \$42 million and \$42 million in 2019, 2018 and 2017, respectively.

The Company has a long-term incentive compensation plan ("LTIP") that provides for compensation to key executives based on the growth in the Company's book value per share over a five year period.

The following table summarizes the outstanding LTIP awards as of December 31, 2019:

	Units Outstanding	Maximum Value	Inception to date earned through December 31, 2019 on outstanding units
2015 grant	179,250	\$ 17,925,000	\$ 17,925,000
2016 grant	199,500	19,950,000	15,243,000
2017 grant	210,000	21,000,000	10,938,900
2018 grant	215,250	21,525,000	7,501,463
2019 grant	228,750	22,875,000	3,068,338

The following table summarizes the LTIP expense for each of the three years ended December 31, 2019:

(In thousands)	2019	2018	2017
2013 grant	\$ —	\$ (1,124)	\$ 7,667
2014 grant	(558)	3,227	3,167
2015 grant	3,319	5,170	3,667
2016 grant	3,548	5,148	3,601
2017 grant	3,432	4,700	3,162
2018 grant	3,310	4,317	—
2019 grant	3,068	—	—
Total	<u>\$ 16,119</u>	<u>\$ 21,438</u>	<u>\$ 21,264</u>

(24) Supplemental Financial Statement Data

Other operating costs and expenses consist of the following:

(In thousands)	2019	2018	2017
Amortization of deferred policy acquisition costs	\$ 1,001,611	\$ 915,246	\$ 1,111,489
Insurance operating expenses	1,088,690	1,183,635	989,535
Insurance service expenses	101,317	118,357	129,776
Net foreign currency (gains) losses	(30,715)	(27,067)	15,267
Other costs and expenses	201,179	193,050	190,865
Total	<u>\$ 2,362,082</u>	<u>\$ 2,383,221</u>	<u>\$ 2,436,932</u>

(25) Industry Segments

The Company's reportable segments include the following two business segments, plus a corporate segment:

- **Insurance** - predominantly commercial insurance business, including excess and surplus lines, admitted lines and specialty personal lines throughout the United States, as well as insurance business in the United Kingdom, Continental Europe, South America, Canada, Mexico, Scandinavia, Asia and Australia.
- **Reinsurance & Monoline Excess** - reinsurance business on a facultative and treaty basis, primarily in the United States, United Kingdom, Continental Europe, Australia, the Asia-Pacific region and South Africa, as well as operations that solely retain risk on an excess basis.

The accounting policies of the segments are the same as those described in the summary of significant accounting policies. Income tax expense and benefits are calculated based upon the Company's overall effective tax rate.

Summary financial information about the Company's reporting segments is presented in the following table. Income before income taxes by segment includes allocated investment income. Identifiable assets by segment are those assets used in or allocated to the operation of each segment.

	Revenues						
	Earned Premiums (1)	Investment Income	Other	Total (2)	Pre-Tax Income (Loss)	Net Income (Loss) to Common Stockholders	
(In thousands)							
Year ended December 31, 2019							
Insurance	\$ 5,919,819	\$ 429,405	\$ 47,850	\$ 6,397,074	\$ 814,862	\$ 650,510	
Reinsurance & Monoline Excess	713,469	164,082	—	877,551	189,188	152,046	
Corporate, other and eliminations (3)	—	52,127	454,741	506,868	(271,833)	(215,967)	
Net investment gains	—	—	120,703	120,703	120,703	95,355	
Consolidated	\$ 6,633,288	\$ 645,614	\$ 623,294	\$ 7,902,196	\$ 852,920	\$ 681,944	
Year ended December 31, 2018							
Insurance	\$ 5,702,073	\$ 433,490	\$ 72,727	\$ 6,208,290	\$ 717,154	\$ 571,381	
Reinsurance & Monoline Excess	669,432	179,534	—	848,966	201,001	160,791	
Corporate, other and eliminations (3)	—	61,211	418,696	479,907	(260,549)	(213,469)	
Net investment gains	—	—	154,488	154,488	154,488	122,046	
Consolidated	\$ 6,371,505	\$ 674,235	\$ 645,911	\$ 7,691,651	\$ 812,094	\$ 640,749	
Year ended December 31, 2017							
Insurance	\$ 5,549,403	\$ 366,862	\$ 86,865	\$ 6,003,130	\$ 623,746	\$ 437,953	
Reinsurance & Monoline Excess	762,016	160,462	—	922,478	117,131	90,358	
Corporate, other and eliminations (3)	—	48,464	374,834	423,298	(303,965)	(197,525)	
Net investment gains	—	—	335,858	335,858	335,858	218,308	
Consolidated	\$ 6,311,419	\$ 575,788	\$ 797,557	\$ 7,684,764	\$ 772,770	\$ 549,094	

(In thousands)	<u>Identifiable Assets</u>	
	December 31,	
	2019	2018
Insurance	\$ 20,003,202	\$ 18,214,293
Reinsurance & Monoline Excess	4,709,724	4,371,151
Corporate, other and eliminations (3)	1,930,502	2,310,533
Consolidated	<u>\$ 26,643,428</u>	<u>\$ 24,895,977</u>

(1) Certain amounts included in earned premiums of each segment are related to inter-segment transactions.

(2) Revenues for Insurance includes \$725.4 million, \$714.2 million, and \$688.2 million in 2019, 2018, and 2017, respectively, from foreign countries. Revenues for Reinsurance & Monoline Excess includes \$249.6 million, \$228.1 million, and \$201.3 million in 2019, 2018 and 2017, respectively, from foreign countries.

(3) Corporate, other and eliminations represent corporate revenues and expenses and other items that are not allocated to business segments.

Net premiums earned by major line of business are as follows:

(In thousands)	2019	2018	2017
Insurance			
Other liability	\$ 2,063,401	\$ 1,912,071	\$ 1,843,826
Workers' compensation	1,301,980	1,327,206	1,324,801
Short-tail lines	1,223,902	1,184,447	1,184,465
Commercial automobile	750,051	722,236	650,441
Professional liability	580,485	556,113	545,870
Total Insurance	<u>5,919,819</u>	<u>5,702,073</u>	<u>5,549,403</u>
Reinsurance & Monoline Excess			
Casualty	405,063	362,886	377,650
Monoline Excess	160,071	162,908	157,039
Property	148,335	143,638	227,327
Total Reinsurance & Monoline Excess	<u>713,469</u>	<u>669,432</u>	<u>762,016</u>
Total	<u>\$ 6,633,288</u>	<u>\$ 6,371,505</u>	<u>\$ 6,311,419</u>

(26) Quarterly Financial Information (Unaudited)

The following is a summary of quarterly financial data:

(In thousands, except per share data)

Three months ended	2019			
	March 31	June 30	September 30	December 31
Revenues	\$ 1,937,022	\$ 2,023,384	\$ 1,965,716	\$ 1,976,074
Net income	180,722	216,709	165,208	119,306
Net income per share (1)				
Basic (2)	0.95	1.14	0.87	0.62
Diluted	0.94	1.12	0.85	0.62

Three months ended	2018			
	March 31	June 30	September 30	December 31
Revenues	\$ 1,891,247	\$ 1,910,916	\$ 1,937,902	\$ 1,951,586
Net income	166,397	180,075	161,920	132,357
Net income per share (1)				
Basic (2)	0.88	0.95	0.85	0.69
Diluted	0.87	0.93	0.84	0.69

(1) Net income per share ("EPS") in each quarter is computed using the weighted-average number of shares outstanding during that quarter, while EPS for the full year is computed using the weighted-average number of shares outstanding during the year. Thus, the sum of the four quarters EPS does not necessarily equal the full-year EPS.

(2) Basic shares outstanding includes shares held in a grantor trust.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

The Company's management, including its Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures pursuant to Exchange Act Rule 13a-15(b) as of the end of the period covered by this annual report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company has in place effective controls and procedures designed to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act and the rules thereunder, is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms.

During the quarter ended December 31, 2019, there have been no changes in our internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

Management's Report On 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 GAAP, 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.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of Treadway Commission. Based on our evaluation under the framework in Internal Control - Integrated Framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2019.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
W. R. Berkley Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited W. R. Berkley Corporation and Subsidiaries' (the Company) internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedules II to VI (collectively, the consolidated financial statements), and our report dated February 20, 2020 expressed an unqualified opinion on those consolidated financial statements.

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 Managements's 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 of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included 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/ KPMG LLP

New York, New York
February 20, 2020

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Reference is made to the registrant's definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, and which is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

Reference is made to the registrant's definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, and which is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

(a) Security ownership of certain beneficial owners

Reference is made to the registrant's definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, and which is incorporated herein by reference.

(b) Security ownership of management

Reference is made to the registrant's definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, and which is incorporated herein by reference.

(c) Changes in control

Reference is made to the registrant's definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, and which is incorporated herein by reference.

(d) Equity compensation plan information

Reference is made to the registrant's definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, and which is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Reference is made to the registrant's definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, and which is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Reference is made to the registrant's definitive proxy statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2019, and which is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Index to Financial Statements

The schedules to the consolidated financial statements listed below should be read in conjunction with the consolidated financial statements included in this Annual Report on Form 10-K. Financial statement schedules not included in this Annual Report on Form 10-K have been omitted because they are not applicable or required information is shown in the financial statements or notes thereto.

Index to Financial Statement Schedules	Page
<u>Schedule II — Condensed Financial Information of Registrant</u>	<u>120</u>
<u>Schedule III — Supplementary Insurance Information</u>	<u>124</u>
<u>Schedule IV — Reinsurance</u>	<u>125</u>
<u>Schedule V — Valuation and Qualifying Accounts</u>	<u>126</u>
<u>Schedule VI — Supplementary Information Concerning Property — Casualty Insurance Operations</u>	<u>127</u>

(b) Exhibits

EXHIBITS

Number

- (3.1) The Company's Restated Certificate of Incorporation, as amended through May 10, 2004 (incorporated by reference to Exhibits 3.1 and 3.2 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on August 6, 2003).
- (3.2) Amendment, dated May 11, 2004, to the Company's Restated Certificate of Incorporation, as amended (incorporated by reference to Exhibit 3.2 of the Company's Quarterly report on Form 10-Q (File No. 1-15202) filed with the Commission on August 5, 2004).
- (3.3) Amendment, dated May 16, 2006, to the Company's Restated Certificate of Incorporation, as amended (incorporated by reference to Exhibit 3.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on May 17, 2006).
- (3.4) Amended and Restated By-Laws (incorporated by reference to Exhibit 3 (ii) of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on August 5, 2015).
- (4.1) Description of Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934
- (4.2) Indenture, dated as of February 14, 2003, between the Company and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.1 of the Company's Annual Report on Form 10-K (File No. 1-15202) filed with the Commission of March 31, 2003).
- (4.3) Fifth Supplemental Indenture, dated as of February 9, 2007, between the Company and The Bank of New York, as Trustee, relating to \$250,000,000 principal amount of the Company's 6.25% Senior Notes due 2037, including form of the Notes as Exhibit A (incorporated by reference to Exhibit 4.7 of the Company's Annual Report on Form 10-K (File No. 1-15202) filed with the Commission on March 1, 2007).
- (4.4) Seventh Supplemental Indenture, dated as of September 16, 2010, between the Company and The Bank of New York Mellon, as Trustee, relating to \$300,000,000 principal amount of the Company's 5.375% Senior Notes due 2020, including form of the Notes as Exhibit A (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on September 16, 2010).
- (4.5) Eighth Supplemental Indenture, dated as of March 16, 2012, between the Company and The Bank of New York Mellon, as Trustee, relating to \$350,000,000 principal amount of the Company's 4.625% Senior Notes due 2022, including form of the Notes as Exhibit A (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on March 16, 2012).
- (4.6) Ninth Supplemental Indenture, dated as of August 6, 2014, between the Company and The Bank of New York Mellon, as Trustee, relating to \$350,000,000 principal amount of the Company's 4.75% Senior Notes due 2044, including form of the Notes as Exhibit A (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on August 6, 2014).
- (4.7) Subordinated Indenture, dated as of May 2, 2013, between the Company and The Bank of New York Mellon, as Trustee (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on May 2, 2013).
- (4.8) First Supplemental Indenture, dated as of May 2, 2013, between the Company and The Bank of New York Mellon, as Trustee, relating to \$350,000,000 principal amount of the Company's 5.625% Subordinated Debentures due 2053, including the form of the Securities as Exhibit A (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on May 2, 2013).
- (4.9) Subordinated Indenture, dated as of March 1, 2016, between the Company and The Bank of New York Mellon, as Trustee (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on March 1, 2016).

- (4.10) First Supplemental Indenture, dated as of March 1, 2016, between the Company and The Bank of New York Mellon, as Trustee, relating to \$110,000,000 principal amount of the Company's 5.9% Subordinated Debentures due 2056, including the form of the Securities as Exhibit A (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on March 1, 2016).
- (4.11) Second Supplemental Indenture, dated as of May 25, 2016, between the Company and The Bank of New York Mellon, as Trustee, relating to \$290,000,000 principal amount of the Company's 5.75% Subordinated Debentures due 2056, including the form of the Securities as Exhibit A (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on May 25, 2016).
- (4.12) Subordinated Indenture, dated as of March 26, 2018, between the Company and The Bank of New York Mellon, as Trustee (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on March 26, 2018).
- (4.13) First Supplemental Indenture, dated as of March 26, 2018, between the Company and The Bank of New York Mellon, as Trustee, relating to \$175,000,000 principal amount of the Company's 5.7% Subordinated Debentures due 2058, including the form of the Securities as Exhibit A (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on March 26, 2018).
- (4.14) Second Supplemental Indenture, dated as of December 16, 2019, between the Company and the Bank of New York Mellon, as Trustee, relating to \$300,000,000 principal amount of the Company's 5.10% Subordinated Debentures due 2059, including the form of the Securities as Exhibit A (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on December 16, 2019).
- (4.15) The instruments defining the rights of holders of the other long term debt securities of the Company are omitted pursuant to Section (b)(4)(iii)(A) of Item 601 of Regulation S-K. The Company agrees to furnish supplementally copies of these instruments to the Commission upon request.
- (10.1) W. R. Berkley Corporation 2018 Stock Incentive Plan (incorporated by reference to Annex A of the Company's 2018 Proxy Statement (File No. 1-15202) filed with the Commission on April 19, 2018).
- (10.2) Form of Restricted Stock Unit Agreement for grant of April 4, 2003 (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on August 6, 2003).
- (10.3) Form of Restricted Stock Unit Agreement under the W. R. Berkley Corporation 2003 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on May 3, 2005).
- (10.4) Form of Restricted Stock Unit Agreement under the W. R. Berkley Corporation 2003 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on August 6, 2010).
- (10.5) Form of Restricted Stock Unit Agreement under the W. R. Berkley Corporation 2012 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on November 8, 2012).
- (10.6) Form of 2014 Performance-Based Restricted Stock Unit Agreement under the W. R. Berkley Corporation 2012 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on November 7, 2014).
- (10.7) Form of 2015 Performance-Based Restricted Stock Unit Agreement under the W. R. Berkley Corporation 2012 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on November 9, 2015).
- (10.8) Form of 2017 Performance-Based Restricted Stock Unit Agreement Under the W. R. Berkley Corporation 2012 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on November 8, 2017).

- (10.9) Form of 2018 Performance-Based Restricted Stock Unit Agreement Under the W. R. Berkley Corporation 2018 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on November 7, 2018).
- (10.10) W. R. Berkley Corporation Deferred Compensation Plan for Officers as amended and restated November 2, 2016 (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on November 7, 2018).
- (10.11) W. R. Berkley Corporation Deferred Compensation Plan for Directors as amended and restated effective December 3, 2007 (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on December 19, 2007).
- (10.12) W. R. Berkley Corporation Amended and Restated Annual Incentive Compensation Plan (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on February 25, 2019).
- (10.13) W. R. Berkley Corporation 2014 Long-Term Incentive Plan (incorporated by reference to Annex A of the Company's 2014 Proxy Statement (File No. 1-15202) filed with the Commission on April 7, 2014).
- (10.14) Form of 2015 Performance Unit Award Agreement under the W. R. Berkley Corporation 2014 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on May 4, 2015).
- (10.15) Form of 2016 Performance Unit Award Agreement under the W. R. Berkley Corporation 2014 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on May 10, 2016).
- (10.16) Form of 2018 Performance Unit Award Agreement under the W. R. Berkley Corporation 2014 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q (File No. 1-15202) filed with the Commission on May 7, 2018).
- (10.17) W. R. Berkley Corporation 2019 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 of the Company's current Report on Form 8-K (File No. 1-15202) filed with the Commission on February 25, 2019).
- (10.18) Form of 2019 Performance Unit Award Agreement under the W. R. Berkley Corporation 2019 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K (File No. 1-15202) filed with the Commission on February 25, 2019).
- (10.19) W. R. Berkley Corporation 2009 Directors Stock Plan (incorporated by reference to Annex B of the Company's 2015 Proxy Statement (File No. 1-15202) filed with the Commission on April 20, 2015).
- (10.20) Supplemental Benefits Agreement between William R. Berkley and the Company as amended and restated as of December 21, 2011 (incorporated by reference to Exhibit 10.14 of the Company's Annual Report on Form 10-K (File No. 1-15202) filed with the Commission on February 28, 2012).
- (14) Code of Ethics for Senior Financial Officers (incorporated by reference to Exhibit 14 of the Company's Annual Report on Form 10-K (File No. 1-15202) filed with the Commission on March 14, 2005).
- (21) List of the Company's subsidiaries.
- (23) Consent of Independent Registered Public Accounting Firm.
- (31.1) Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/ 15d-14(a).

[\(31.2\)](#) Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/ 15d-14(a).

[\(32.1\)](#) Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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.

W. R. BERKLEY CORPORATION

By /s/ W. Robert Berkley, Jr.
W. Robert Berkley, Jr.
President and Chief Executive Officer

February 20, 2020

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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ William R. Berkley</u> William R. Berkley	Executive Chairman of the Board of Directors	February 20, 2020
<u>/s/ W. Robert Berkley, Jr.</u> W. Robert Berkley, Jr.	President Chief Executive Officer and Director (Principal executive officer)	February 20, 2020
<u>/s/ Christopher L. Augostini</u> Christopher L. Augostini	Director	February 20, 2020
<u>/s/ Ronald E. Blaylock</u> Ronald E. Blaylock	Director	February 20, 2020
<u>/s/ Mark E. Brockbank</u> Mark E. Brockbank	Director	February 20, 2020
<u>/s/ Mary C. Farrell</u> Mary C. Farrell	Director	February 20, 2020
<u>/s/ María Luisa Ferré</u> María Luisa Ferré	Director	February 20, 2020
<u>/s/ Jack H. Nusbaum</u> Jack H. Nusbaum	Director	February 20, 2020
<u>/s/ Leigh Ann Pusey</u> Leigh Ann Pusey	Director	February 20, 2020
<u>/s/ Mark L. Shapiro</u> Mark L. Shapiro	Director	February 20, 2020
<u>/s/ Jonathan Talisman</u> Jonathan Talisman	Director	February 20, 2020
<u>/s/ Richard M. Baio</u> Richard M. Baio	Executive Vice President Chief Financial Officer and Treasurer (Principal financial officer and principal accounting officer)	February 20, 2020

W. R. Berkley Corporation
Condensed Financial Information of Registrant
Balance Sheets (Parent Company)

(In thousands)	December 31,	
	2019	2018
Assets:		
Cash and cash equivalents	\$ 389,801	\$ 83,950
Fixed maturity securities available for sale at fair value (cost \$718,642 and \$1,317,058 at December 31, 2019 and 2018, respectively)	723,959	1,307,347
Loans receivable	55,794	51,544
Equity securities, at fair value (cost \$3,430 in 2019 and \$3,430 in 2018)	3,430	3,430
Investment in subsidiaries	7,623,639	6,786,999
Current federal income taxes	18,857	9,068
Deferred federal income taxes	—	66,995
Property, furniture and equipment at cost, less accumulated depreciation	12,323	13,391
Other assets	13,294	12,340
Total assets	\$ 8,841,097	\$ 8,335,064
Liabilities and stockholders' equity:		
Liabilities:		
Due to subsidiaries	\$ 107,245	\$ 116,125
Other liabilities	118,593	115,562
Deferred federal income taxes	22,846	—
Subordinated debentures	1,198,704	907,491
Senior notes	1,318,770	1,758,035
Total liabilities	2,766,158	2,897,213
Stockholders' equity:		
Preferred stock	—	—
Common stock	70,535	70,535
Additional paid-in capital	1,056,042	1,039,633
Retained earnings (including accumulated undistributed net income of subsidiaries of \$5,564,980 and \$5,068,139 at December 31, 2019 and 2018, respectively)	7,932,372	7,558,619
Accumulated other comprehensive income	(257,299)	(510,470)
Treasury stock, at cost	(2,726,711)	(2,720,466)
Total stockholders' equity	6,074,939	5,437,851
Total liabilities and stockholders' equity	\$ 8,841,097	\$ 8,335,064

See Report of Independent Registered Public Accounting Firm and note to condensed financial information.

W. R. Berkley Corporation
Condensed Financial Information of Registrant, Continued
Statements of Income (Parent Company)

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Management fees and investment income including dividends from subsidiaries of \$416,027, \$639,477, and \$694,462 for the years ended December 31, 2019, 2018 and 2017, respectively	\$ 470,773	\$ 697,687	\$ 738,923
Net investment gains (losses)	850	(1,685)	(4,286)
Other income	117	530	805
Total revenues	471,740	696,532	735,442
Operating costs and expense	204,812	191,873	182,145
Interest expense	148,282	155,082	146,929
Income before federal income taxes	118,646	349,577	406,368
Federal income taxes:			
Federal income taxes provided by subsidiaries on a separate return basis	207,647	409,439	115,597
Federal income tax expense on a consolidated return basis	(141,190)	(113,138)	(195,261)
Net federal income tax expense (benefit)	66,457	296,301	(79,664)
Income before undistributed equity in net income of subsidiaries	185,103	645,878	326,704
Equity in undistributed net income (loss) of subsidiaries	496,841	(5,129)	222,390
Net income	\$ 681,944	\$ 640,749	\$ 549,094

See Report of Independent Registered Public Accounting Firm and note to condensed financial information.

W. R. Berkley Corporation
Condensed Financial Information of Registrant, Continued
Statements of Cash Flows (Parent Company)

(In thousands)	Year Ended December 31,		
	2019	2018	2017
Cash flows from operating activities:			
Net income	\$ 681,944	\$ 640,749	\$ 549,094
Adjustments to reconcile net income to net cash from operating activities:			
Net investment (gains) losses	(850)	1,685	4,286
Depreciation and amortization	7,058	9,441	2,039
Equity in undistributed earnings of subsidiaries	(496,841)	5,129	(222,390)
Tax payments received from subsidiaries	192,407	282,084	98,313
Federal income taxes provided by subsidiaries on a separate return basis	(207,646)	(409,439)	(115,597)
Stock incentive plans	28,389	28,531	38,075
Change in:			
Federal income taxes	11,841	(77,415)	2,711
Other assets	(5,343)	1,348	(877)
Other liabilities	11,866	109,016	18,661
Accrued investment income	4,395	(2,870)	(2,818)
Net cash from operating activities	227,220	588,259	371,497
Cash from (used) in investing activities:			
Proceeds from sales of fixed maturity securities	619,334	668,447	849,330
Proceeds from maturities and prepayments of fixed maturity securities	435,473	255,528	316,611
Cost of purchases of fixed maturity securities	(459,418)	(1,188,821)	(1,329,379)
Change in loans receivable	(4,250)	1,475	(29,600)
Investments in and advances to subsidiaries, net	(36,170)	(184,597)	(21,139)
Change in balance due to security broker	245	—	—
Net additions to real estate, furniture & equipment	(112)	(264)	(1,055)
Other, net	142	—	—
Net cash from (used in) investing activities	555,244	(448,232)	(215,232)
Cash used in financing activities:			
Net proceeds from issuance of senior notes	290,454	178,562	—
Repayment of senior notes	(440,651)	—	—
Purchase of common treasury shares	(18,225)	(24,750)	(47,807)
Cash dividends to common stockholders	(308,191)	(254,951)	(188,199)
Net cash used in financing activities	(476,613)	(101,139)	(236,006)
Net increase (decrease) in cash and cash equivalents	305,851	38,888	(79,741)
Cash and cash equivalents at beginning of year	83,950	45,062	124,803
Cash and cash equivalents at end of year	\$ 389,801	\$ 83,950	\$ 45,062

See Report of Independent Registered Public Accounting Firm and note to condensed financial information.

W. R. Berkley Corporation
Condensed Financial Information of Registrant, Continued
December 31, 2019

Note to Condensed Financial Information (Parent Company)

The accompanying condensed financial information should be read in conjunction with the notes to consolidated financial statements included elsewhere herein. Reclassifications have been made in the 2018 and 2017 financial statements as originally reported to conform them to the presentation of the 2019 financial statements.

The Company files a consolidated federal tax return with the results of its domestic insurance subsidiaries included on a statutory basis. Under present Company policy, federal income taxes payable by subsidiary companies on a separate-return basis are paid to W. R. Berkley Corporation, and the Company pays the tax due on a consolidated return basis.

W. R. Berkley Corporation and Subsidiaries
Supplementary Insurance Information
December 31, 2019, 2018 and 2017

(In thousands)	Deferred Policy Acquisition Cost	Reserve for Losses and Loss Expenses	Unearned Premiums	Net Premiums Earned	Net Investment Income	Loss and Loss Expenses	Amortization of Deferred Policy Acquisition Cost	Other Operating Costs and Expenses	Net Premiums Written
December 31, 2019									
Insurance	\$ 438,082	\$ 9,836,950	\$ 3,304,152	\$ 5,919,819	\$ 429,405	\$ 3,692,551	\$ 840,333	\$ 1,049,328	\$ 6,086,009
Reinsurance & Monoline Excess	79,282	2,746,299	352,355	713,469	164,082	438,565	161,278	88,520	777,490
Corporate, other and eliminations	—	—	—	—	52,127	—	—	222,623	—
Total	<u>\$ 517,364</u>	<u>\$ 12,583,249</u>	<u>\$ 3,656,507</u>	<u>\$ 6,633,288</u>	<u>\$ 645,614</u>	<u>\$ 4,131,116</u>	<u>\$ 1,001,611</u>	<u>\$ 1,360,471</u>	<u>\$ 6,863,499</u>
December 31, 2018									
Insurance	\$ 432,568	\$ 9,278,729	\$ 3,081,433	\$ 5,702,073	\$ 433,490	\$ 3,566,358	\$ 788,508	\$ 1,136,269	\$ 5,791,905
Reinsurance & Monoline Excess	65,061	2,687,719	278,558	669,432	179,534	408,344	126,738	112,885	641,322
Corporate, other and eliminations	—	—	—	—	61,211	—	—	218,821	—
Total	<u>\$ 497,629</u>	<u>\$ 11,966,448</u>	<u>\$ 3,359,991</u>	<u>\$ 6,371,505</u>	<u>\$ 674,235</u>	<u>\$ 3,974,702</u>	<u>\$ 915,246</u>	<u>\$ 1,467,975</u>	<u>\$ 6,433,227</u>
December 31, 2017									
Insurance	\$ 428,535	\$ 8,858,926	\$ 2,987,805	\$ 5,549,403	\$ 366,862	\$ 3,469,175	\$ 908,746	\$ 1,001,463	\$ 5,555,515
Reinsurance & Monoline Excess	79,014	2,811,482	302,375	762,016	160,462	533,173	202,743	69,431	704,993
Corporate, other and eliminations	—	—	—	—	48,464	—	—	254,549	—
Total	<u>\$ 507,549</u>	<u>\$ 11,670,408</u>	<u>\$ 3,290,180</u>	<u>\$ 6,311,419</u>	<u>\$ 575,788</u>	<u>\$ 4,002,348</u>	<u>\$ 1,111,489</u>	<u>\$ 1,325,443</u>	<u>\$ 6,260,508</u>

See Report of Independent Registered Public Accounting Firm.

W. R. Berkley Corporation and Subsidiaries
Reinsurance
Years ended December 31, 2019, 2018 and 2017

(In thousands, other than percentages)	Premiums Written				Percentage of Amount Assumed to Net
	Direct Amount	Ceded to Other Companies	Assumed from Other Companies	Net Amount	
Year ended December 31, 2019					
Insurance	\$ 7,180,759	\$ 1,312,564	\$ 217,814	\$ 6,086,009	3.6%
Reinsurance & Monoline Excess	206,000	86,155	657,645	777,490	84.6%
Total	\$ 7,386,759	\$ 1,398,719	\$ 875,459	\$ 6,863,499	12.8%
Year ended December 31, 2018					
Insurance	\$ 6,782,757	\$ 1,188,297	\$ 197,445	\$ 5,791,905	3.4%
Reinsurance & Monoline Excess	190,459	80,970	531,833	641,322	82.9%
Total	\$ 6,973,216	\$ 1,269,267	\$ 729,278	\$ 6,433,227	11.3%
Year ended December 31, 2017					
Insurance	\$ 6,537,777	\$ 1,143,656	\$ 161,394	\$ 5,555,515	2.9%
Reinsurance & Monoline Excess	188,252	72,799	589,540	704,993	83.6%
Total	\$ 6,726,029	\$ 1,216,455	\$ 750,934	\$ 6,260,508	12.0%

See Report of Independent Registered Public Accounting Firm.

W. R. Berkley Corporation and Subsidiaries
Valuation and Qualifying Accounts
Years ended December 31, 2019, 2018 and 2017

(In thousands)	Opening Balance	Additions- Charged to Expense	Deduction- Amounts Written Off	Ending Balance
Year ended December 31, 2019				
Premiums and fees receivable	\$ 39,093	\$ (5,549)	\$ (6,998)	\$ 26,546
Due from reinsurers	947	—	(257)	690
Deferred federal and foreign income taxes	35,195	1,298	(3,243)	33,250
Loan loss reserves	3,383	—	(1,237)	2,146
Total	\$ 78,618	\$ (4,251)	\$ (11,735)	\$ 62,632
Year ended December 31, 2018				
Premiums and fees receivable	\$ 39,926	\$ 6,985	\$ (7,817)	\$ 39,093
Due from reinsurers	1,010	65	(128)	947
Deferred federal and foreign income taxes	16,619	18,772	(196)	35,195
Loan loss reserves	3,383	—	—	3,383
Total	\$ 60,938	\$ 25,822	\$ (8,141)	\$ 78,618
Year ended December 31, 2017				
Premiums and fees receivable	\$ 26,569	\$ 20,720	\$ (7,363)	\$ 39,926
Due from reinsurers	1,049	(29)	(10)	1,010
Deferred federal and foreign income taxes	5,457	12,663	(1,501)	16,619
Loan loss reserves	3,397	(14)	—	3,383
Total	\$ 36,472	\$ 33,340	\$ (8,874)	\$ 60,938

See Report of Independent Registered Public Accounting Firm.

W. R. Berkley Corporation and Subsidiaries
Supplementary Information Concerning Property-Casualty Insurance Operations
Years Ended December 31, 2019, 2018 and 2017

(In thousands)	2019	2018	2017
Deferred policy acquisition costs	\$ 517,364	\$ 497,629	\$ 507,549
Reserves for losses and loss expenses	12,583,249	11,966,448	11,670,408
Unearned premiums	3,656,507	3,359,991	3,290,180
Net premiums earned	6,633,288	6,371,505	6,311,419
Net investment income	645,614	674,235	575,788
Losses and loss expenses incurred:			
Current year	4,057,989	3,926,489	3,963,543
Prior years	34,079	6,831	(5,165)
Loss reserve discount accretion	39,048	41,382	43,970
Amortization of deferred policy acquisition costs	1,001,611	915,246	1,111,489
Paid losses and loss expenses	3,659,402	3,664,885	3,589,955
Net premiums written	6,863,499	6,433,227	6,260,508

See Report of Independent Registered Public Accounting Firm.

**DESCRIPTION OF REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

As of February 20, 2020, W. R. Berkley Corporation (the “Company” or “we”) has six classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”): (1) our common stock, par value \$0.20 per share (“Common Stock”); (2) our 5.625% Subordinated Debentures due 2053 (the “2053 Debentures”); (3) our 5.90% Subordinated Debentures due 2056 (the “5.90% 2056 Debentures”); (4) our 5.75% Subordinated Debentures due 2056 (the “5.75% 2056 Debentures”); (5) our 5.70% Subordinated Debentures due 2058 (the “2058 Debentures”); and (6) our 5.10% Subordinated Debentures due 2059 (the “2059 Debentures,” and together with the 2053 Debentures, the 5.90% 2056 Debentures, the 5.75% 2056 Debentures and the 2058 Debentures, the “Debentures”).

Description of Common Stock

The following description of our Common Stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Restated Certificate of Incorporation, as amended to date (the “Certificate of Incorporation”), and our Amended and Restated By-Laws (the “Bylaws”), each of which is incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.1 is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the Delaware General Corporation Law, for additional information.

Authorized and Outstanding Common Stock

Pursuant to the Certificate of Incorporation, our authorized capital stock consists of 500,000,000 shares Common Stock and 5,000,000 shares of preferred stock, par value \$0.10 per share (“Preferred Stock”). As of February 18, 2020, 183,421,709 shares of Common Stock were outstanding. All shares of Common Stock currently issued and outstanding are fully paid and non-assessable. No shares of Preferred Stock are currently outstanding.

Voting Rights

Each holder of Common Stock is entitled to one vote for each share of Common Stock and does not have any right to cumulate votes in the election of directors.

Dividends

Subject to any preferential rights of any Preferred Stock created by our board of directors, each outstanding share of Common Stock is entitled to such dividends as our board of directors may declare from time to time out of funds that we can legally use to pay dividends.

Liquidation Rights

In the event of liquidation, dissolution or winding-up of the Company, holders of Common Stock will be entitled to receive on a pro-rata basis any assets remaining after provision for payment of creditors and after payment of any liquidation preferences to holders of Preferred Stock, if any.

Listing

Our Common Stock is listed on the New York Stock Exchange under the symbol “WRB.”

Description of the Debentures

The following description of our Debentures is a summary and does not purport to be complete.

The description of our 2053 Debentures is qualified in its entirety by reference to the Subordinated Indenture, dated as of May 2, 2013, between the Company and The Bank of New York Mellon (“BNY”), as trustee, as supplemented by the First Supplemental Indenture, dated as of May 2, 2013 (as so supplemented, the “2013 Indenture”).

The description of our 5.90% 2056 Debentures and 5.75% 2056 Debentures is qualified in its entirety by reference to the Subordinated Indenture, dated as of March 1, 2016, between the Company and BNY, as trustee, as supplemented in the case of the 5.90% 2056 Debentures by the First Supplemental Indenture, dated as of March 1, 2016, and as supplemented in the case of the 5.75% 2056 Debentures by the Second Supplemental Indenture, dated as of May 25, 2016 (as so supplemented, the “2016 Indenture”).

The description of our 2058 Debentures and our 2059 Debentures is qualified in its entirety by reference to the Subordinated Indenture, dated as of March 26, 2018, between the Company and BNY, as trustee, as supplemented in the case of the 2058 Debentures by the First Supplemental Indenture, dated as of March 26, 2018, and as supplemented in the case of the 2059 Debentures by the Second Supplemental Indenture, dated as of December 16, 2019 (as so supplemented, “2018 Indenture,” and together with the 2013 Indenture and the 2016 Indenture, the “Indentures”).

The 2053 Debentures, 5.90% 2056 Debentures, 5.75% 2056 Debentures, 2058 Debentures and 2059 Debentures are traded on the New York Stock Exchange under the symbols “WRB PR B,” “WRB PR C,” “WRB PR D,” “WRB PR E” and “WRB PR F,” respectively.

General

The following is a description of certain of the specific terms of each class of the Debentures.

The Debentures were initially issued in the following aggregate principal amounts: \$350,000,000 (2053 Debentures), \$110,000,000 (5.90% 2056 Debentures), \$290,000,000 (5.75% 2056 Debentures), \$185,000,000 (2058 Debentures) and \$300,000,000 (2059 Debentures).

The Debentures are unsecured obligations of the Company and rank in right of payment and upon liquidation junior to all our existing and future senior indebtedness and are *pari passu* with each other and any other future Indebtedness Ranking on a Parity with the Debentures (as defined below). The Debentures are structurally subordinated to all liabilities of our subsidiaries. The Debentures do not limit us or our subsidiaries’ ability to incur additional debt, including debt that ranks senior in right of payment and upon our liquidation to the Debentures.

The maturity dates of the Debentures are as follows: April 30, 2053 (2053 Debentures), March 1, 2056 (5.90% 2056 Debentures), June 1, 2056 (5.75% 2056 Debentures), March 30, 2058 (2058 Debentures) and December 30, 2059 (2059 Debentures).

The Debentures were issued in a form of one or more fully registered global securities, without coupons, in denominations of \$25 and multiples of \$25 in excess thereof.

The Debentures are not redeemable at the option of the holder prior to maturity and will not benefit from any sinking fund.

Definitions

“**Indebtedness Ranking on a Parity with the Debentures**” means the (a) Debentures and (b) Indebtedness, whether outstanding on the date of the first issuance of the Debentures or thereafter created, assumed or incurred, which specifically by its terms ranks equally with and not prior to the Debentures in right of payment upon our dissolution, winding-up, liquidation, reorganization or similar events. The securing of any Indebtedness, otherwise constituting Indebtedness Ranking on a Parity with the Debentures, shall not be deemed to prevent such Indebtedness from constituting Indebtedness Ranking on a Parity with the Debentures.

“**Indebtedness**” means (a) any obligation of, or any obligation guaranteed by, us for which we are responsible or liable as obligor or otherwise including principal, premium and interest (whether accruing before or after filing of any petition in bankruptcy or any similar proceedings by or against us and whether or not allowed as a claim in bankruptcy or similar proceedings) for (i) indebtedness for money borrowed, (ii) indebtedness evidenced by securities, bonds, debentures, notes or other similar written instruments, (iii) any deferred obligation for the payment of the purchase price or conditional sale obligation of property or assets acquired other than in the ordinary course of business, (iv) all obligations for the reimbursement of any letter of credit, banker’s acceptance, security purchase facility or similar credit transaction, (v) all obligations under “keep-well” agreements required by insurance regulators or (vi) any obligation referred to in (i) through (v) above of other persons secured by any lien on any property or asset of the Company and (b) all indebtedness for obligations to make payment in respect of derivative products such as interest and foreign exchange rate contracts, commodity contracts (including future or options contracts) swap agreements, cap agreements, repurchase and reverse repurchase agreements and similar arrangements, whether outstanding on the first issuance of the debentures or thereafter created, assumed or incurred.

“**Indebtedness Ranking Junior to the Debentures**” means any Indebtedness, whether outstanding on the date of the first issuance of the Debentures or thereafter created, assumed or incurred, which specifically by its terms ranks junior to and not equally with or prior to the Debentures (and any Indebtedness Ranking on a Parity with the Debentures) in right of payment upon our dissolution, winding-up, liquidation, reorganization, or similar events. The securing of any Indebtedness, otherwise constituting Indebtedness Ranking Junior to the Debentures, shall not be deemed to prevent such Indebtedness from constituting Indebtedness Ranking Junior to the Debentures.

Interest and Principal

The 2053 Debentures bear interest at an annual rate of 5.625%, the 5.90% 2056 Debentures bear interest at an annual rate of 5.90%, the 5.75% 2056 Debentures bear interest at an annual rate of 5.75%, the 2058 Debentures bear interest at an annual rate of 5.70% and the 2059 Debentures bear interest at an annual rate of 5.10%.

We will pay interest on the 2053 Debentures quarterly in arrears on January 30, April 30, July 30 and October 30 of each year, subject to our right to defer the payment of interest on such class of Debentures, on one or more occasions, for up to five consecutive years. We will make interest payments on the 2053 Debentures to the holders of record at the close of business on the January 15, April 15, July 15 or October 15, as the case may be, immediately preceding such January 30, April 30, July 30 or October 30, whether or not a business day. However, interest that we pay on the maturity date or redemption date will be payable to the person to whom the principal will be payable.

We will pay interest on the 5.90% 2056 Debentures and the 5.75% 2056 Debentures quarterly in arrears of March 1, June 1, September 1 and December 1 of each year, subject to our right to defer the payment of interest on such class of Debentures, on one or more occasions, for up to five consecutive years. We will make interest payments on the 5.90% 2056 Debentures and the 5.75% 2056 Debentures to the holders of record at the close of business on the February 15, May 15, August 15 or November 15, as the case may be, immediately preceding such March 1, June 1, September 1 or December 1, whether or not a business day. However, interest that we pay on the maturity date or redemption date will be payable to the person to whom the principal will be payable.

We will pay interest on the 2058 Debentures and the 2059 Debentures quarterly in arrears on March 30, June 30, September 30 and December 30 of each year, beginning on March 30, 2020 in the case of the 2059 Debentures, subject to our right to defer the payment of interest on such class of Debentures, on one or more occasions, for up to five consecutive years. We will make interest payments on the 2058 Debentures and 2059 Debentures to the holders of record at the close of business on March 15, June 15, September 15 or December 15, as the case may be, immediately preceding such March 30, June 30, September 30 or December 30, whether or not a business day. However, interest that we pay on the maturity date or redemption date will be payable to the person to whom the principal will be payable.

If we have exercised our right to defer interest payments on any class of Debentures, we generally may not make payments on or redeem or purchase any shares of our capital stock or any of our Debentures or guarantees that rank equally with or junior to such class of Debentures upon our liquidation, dissolution or winding up, subject to certain limited exceptions.

Optional Interest Deferral

With respect to each class of Debentures, so long as no event of default has occurred and is continuing, we may, on one or more occasions, defer interest payments on such class of Debentures for one or more optional deferral periods of up to five consecutive years without giving rise to an event of default under the terms of such class of Debentures. A deferral of interest payments cannot extend, however, beyond the maturity date or the earlier acceleration or redemption of such class of Debentures. During an optional deferral period, interest will continue to accrue on such class of Debentures, and deferred interest payments will accrue additional interest at the same rate, compounded quarterly as of each interest payment date to the extent permitted by applicable law. During an optional deferral period, we will be prohibited from paying current interest on such class of Debentures until we have paid all accrued and unpaid deferred interest plus any accrued interest thereon. No interest otherwise due during an optional deferral period will be due and payable on such class of Debentures until the end of such optional deferral period except upon an acceleration or redemption of such class of Debentures during such deferral period.

At the end of five years following the commencement of an optional deferral period, we must pay all accrued and unpaid deferred interest, including compounded interest. If, at the end of any optional deferral period, we have paid all deferred interest due on such class of Debentures, including compounded interest, we can again defer interest payments on such class of Debentures as described above.

We will provide to the trustee and the holders of the applicable Debentures written notice of any deferral of interest at least one and not more than 60 business days prior to the applicable interest payment date. We have no present intention of exercising our right to defer payments of interest.

Payment Restrictions During a Deferral Period

With respect to each class of Debentures, after the commencement of an optional deferral period until we have paid all accrued and unpaid interest on such class of Debentures, we will not, and will not permit any of our subsidiaries to:

- declare or pay any dividends or distributions on, or redeem, purchase, acquire, or make a liquidation payment with respect to, any of our capital stock (which includes Common Stock and Preferred Stock);
- make any payment of principal, interest or premium on or repay, repurchase or redeem any Indebtedness Ranking on a Parity with the Debentures or Indebtedness Ranking Junior to the Debentures; or
- make any guarantee payments with respect to any guarantee by us of any securities of any of our subsidiaries if such guarantee ranks *pari passu* with or junior in right of payment to such class of Debentures;

other than:

- dividends or distributions in shares of, or options, warrants or rights to subscribe for or purchase shares of, our capital stock where the dividend stock or stock issuable upon exercise of such options, warrants or other rights is the same stock as that on which the dividend is being paid or ranks equally with or junior to such stock;
- any declaration of a dividend in connection with the implementation of a stockholder's rights plan, or the issuance of capital stock under any such plan in the future, or the redemption or repurchase of any such rights pursuant thereto;
- as a result of a reclassification of any series or class of our capital stock or the exchange or conversion of one class or series of our capital stock for or into another class or series of our capital stock;
- the purchase of fractional interests in shares of our capital stock pursuant to an acquisition or the conversion or exchange provisions of such capital stock or the security being converted or exchanged;
- purchases or acquisitions of shares of our capital stock in connection with any employment contract, benefit plan or other similar arrangement with or for the benefit of directors, officers, agents, consultants or employees or our satisfaction of our obligations under any dividend reinvestment plan or our director, officer, agent, consultant or employee stock purchase plans;
- any exchange, redemption or conversion of any class or series of our capital stock, or the capital stock of one of our subsidiaries, for any other class or series of our capital stock, or of any class or series of our Indebtedness for any class or series of our capital stock;
- purchases or acquisitions of shares of our capital stock in connection with our satisfaction of our obligations under any contract or security entered into before commencement of the optional deferral period; and
- (i) payment of current or deferred interest on our Indebtedness Ranking on a Parity with the Debentures made pro rata to the amounts due on our Indebtedness Ranking on a Parity with the Debentures and the Debentures and (ii) payment of principal or current or deferred interest on our Indebtedness Ranking on a Parity with the Debentures that, if not made, would cause us to breach the terms of the instrument governing such Indebtedness Ranking on a Parity with the Debentures.

Optional Redemption

We may elect to redeem each class of the Debentures:

- in whole at any time or in part from time to time on or after May 2, 2018 in the case of the 2053 Debentures, March 1, 2021 in the case of the 5.90% 2056 Debentures, June 1, 2021 in the case of the 5.75% 2056 Debentures, May 30, 2023 in the case of the 2058 Debentures and December 30, 2024 in the case of the 2059 Debentures, at a redemption price equal to their principal amount plus accrued and unpaid interest to, but excluding, the date of redemption; *provided* that if such class of Debentures is not redeemed in whole, at least \$25 million aggregate principal amount of such class of Debentures must remain outstanding after giving effect to such redemption;
- in whole, but not in part, at any time prior to May 2, 2018 in the case of the 2053 Debentures, March 1, 2021 in the case of the 5.90% 2056 Debentures, June 1, 2021 in the case of the 5.75% 2056 Debentures, May 30, 2023 in the case of the 2058 Debentures and December 30, 2024 in the case of the 2059 Debentures, within 90 days of the occurrence of a "tax event" (as defined below) at a

redemption price equal to their principal amount plus accrued and unpaid interest to, but excluding, the date of redemption; or

- in whole, but not in part, at any time prior to May 2, 2018 in the case of the 2053 Debentures, March 1, 2021 in the case of the 5.90% 2056 Debentures, and June 1, 2021 in the case of the 5.75% 2056 Debentures, within 90 days of the occurrence of a “rating agency event” (as defined below) at a redemption price equal to the greater of (a) 100% of their principal amount or (b) the present value of a payment on such applicable date in an amount equal to their outstanding principal amount and scheduled payments of interest that would have accrued from the date of redemption to such applicable date on such class of Debentures, discounted to the date of redemption on a quarterly basis (assuming a 360 day year consisting of twelve 30-day months) at the Treasury Rate (as defined in the applicable prospectus supplement) plus 50 basis points, in each case, plus any accrued and unpaid interest to, but excluding, the date of redemption.
- in whole, but not in part, at any time prior to May 30, 2023 in the case of the 2058 Debentures and December 30, 2024 in the case of the 2059 Debentures, within 90 days of the occurrence of a “rating agency event” at a redemption price equal to 102% of their principal amount plus any accrued and unpaid interest to, but excluding, the date of redemption.

Definitions

“Tax event” means that we will have received an opinion of counsel, rendered by a law firm of nationally recognized standing that is experienced in such matters, stating that, as a result of any:

- amendment to, or change in (including any promulgation, enactment, execution or modification of) the laws (or any regulations under those laws) of the United States or any political subdivision thereof or therein affecting taxation;
- official administrative pronouncement (including a private letter ruling, technical advice memorandum or similar pronouncement) or judicial decision or administrative action or other official pronouncement interpreting or applying the law or regulations enumerated in the preceding bullet point, by any court, governmental agency or regulatory authority; or
- threatened challenge asserted in connection with an audit of us, or a threatened challenge asserted in writing against any taxpayer that has raised capital through the issuance of securities that are substantially similar to such class of Debentures,

which amendment or change is enacted or effective or which pronouncement or decision is announced or which challenge is asserted against us or becomes publicly known on or after the original issue date of such class of Debentures, there is more than an insubstantial increase in the risk that interest accruable or payable by us on such class of Debentures is not, or will not be, deductible by us in whole or in part, for U.S. federal income tax purposes.

“Rating agency event” means that any nationally recognized statistical rating organization within the meaning of Section 3(a)(62) under the Exchange Act that then publishes a rating for us (a “rating agency”) amends, clarifies or changes the criteria it uses to assign equity credit to securities such as such class of Debentures, which amendment, clarification or change results in (a) the shortening of the length of time of such class of Debentures are assigned a particular level of equity credit by that rating agency as compared to the length of time they would have been assigned that level of equity credit by that rating agency or its predecessor on the initial issuance of such class of Debentures; or (b) the lowering of the equity credit (including up to a lesser amount) assigned to such class of Debentures by that rating agency compared to the equity credit assigned by that rating agency or its predecessor on the initial issuance of such class of Debentures.

Payment of Additional Amounts

We will make all payments of principal of, and premium, if any, interest and any other amounts on, or in respect of, the Debentures without withholding or deduction at source for, or on account of, any present or future taxes, fees, duties, assessments or governmental charges of whatever nature imposed or levied by or on behalf of a taxing jurisdiction or any political subdivision or taxing authority thereof or therein, unless such taxes, fees, duties, assessments or governmental charges are required to be withheld or deducted by:

- the laws, or any regulations or rulings promulgated thereunder, of a taxing jurisdiction or any political subdivision or taxing authority thereof or therein, or
- an official position regarding the application, administration, interpretation or enforcement of any such laws, regulations or rulings, including, without limitation, a holding by a court of competent jurisdiction or by a taxing authority in a taxing jurisdiction or any political subdivision thereof.

If a withholding or deduction at source is required, we will, subject to certain limitations and exceptions described below, pay to the holder of any such Debenture such additional amounts as may be necessary so that every net payment of principal, premium, if any, interest or any other amount made to such holder, after the withholding or deduction, will not be less than the amount provided for in such Debenture and the indenture to be then due and payable.

We will not be required to pay any additional amounts for or on account of:

(1) any tax, fee, duty, assessment or governmental charge of whatever nature which would not have been imposed but for the fact that such holder:

- was a resident, domiciliary or national of, or engaged in business or maintained a permanent establishment or was physically present in, the relevant taxing jurisdiction or any political subdivision thereof or otherwise had some connection with the relevant taxing jurisdiction other than by reason of the mere ownership of, or receipt of payment under, such Debenture;
- presented such Debenture for payment in the relevant taxing jurisdiction or any political subdivision thereof, unless such Debenture could not have been presented for payment elsewhere; or
- presented such Debenture for payment more than 30 days after the date on which the payment in respect of such Debenture became due and payable or provided for, whichever is later, except to the extent that the holder would have been entitled to such additional amounts if it had presented such Debenture for payment on any day within that 30-day period;

(2) any estate, inheritance, gift, sale, transfer, personal property or similar tax, assessment or other governmental charge;

(3) any tax, assessment or other governmental charge that is imposed or withheld by reason of the failure by the holder or the beneficial owner of such Debenture to comply with any reasonable request by us addressed to the holder within 90 days of such request:

- to provide information concerning the nationality, residence or identity of the holder or such beneficial owner, or
- to make any declaration or other similar claim or satisfy any information or reporting requirement, which is required or imposed by statute, treaty, regulation or administrative practice of the relevant taxing jurisdiction or any political subdivision thereof as a precondition to exemption from all or part of such tax, assessment or other governmental charge; or

(4) any combination of items (1), (2) and (3) above.

In addition, we will not pay additional amounts with respect to any payment of principal of, or premium, if any, interest or any other amounts on, any Debenture to any holder who is a fiduciary, partnership, other fiscally transparent entity or other than the sole beneficial owner of such Debenture to the extent such payment would be required by the laws of the relevant taxing jurisdiction, or any political subdivision or relevant taxing authority thereof or therein, to be included in the income for tax purposes of a beneficiary or settlor with respect to such fiduciary, partner, member of such other fiscally transparent entity or a beneficial owner who would not have been entitled to such additional amounts had it been the holder of the Debenture.

Consolidation, Amalgamations, Merger and Sales

The Indentures provide that we may not consolidate or amalgamate with or merge into any other person (whether or not affiliated with the Company), or convey, transfer or lease our properties and assets as an entirety or substantially as an entirety to any other person (whether or not affiliated with the Company) to consolidate or amalgamate with or merge into the Company or convey, transfer or lease our properties and assets as an entirety or substantially as an entirety to the Company, unless:

- in case the Company shall consolidate or amalgamate with or merge into another person or convey, transfer or lease its properties and assets as an entirety or substantially as an entirety to any person, the person formed by such consolidation or amalgamation or into which the Company is merged or the person which acquires by conveyance or transfer, or which leases, the properties and assets of the Company as an entirety or substantially as an entirety shall be a person organized and existing under the laws of the United States of America, any state thereof or the District of Columbia, Bermuda, the Cayman Islands, Ireland, Switzerland, the United Kingdom, or any other country which is on the date of the applicable Indenture a member of the Organization of Economic Cooperation and Development, and shall expressly assume, by supplemental indenture, all of our obligations under the Debentures and the applicable Indenture and, for each security that by its terms provides for conversion, provide for the right to convert such security in accordance with its terms;
- immediately after giving effect to such transaction, no default or event of default under the applicable Indenture has occurred and is continuing; and
- the trustee receives from us an officer's certificate and an opinion of counsel that the consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with the applicable provisions of the applicable Indenture.

Events of Default

An event of default with respect to each class of Debentures will occur only upon certain events of bankruptcy, insolvency or receivership involving us or certain of our subsidiaries (as specified in the applicable Indenture).

The Indentures refer to breaches that are not events of default as defaults. They include, with respect to each class of Debenture, among other things:

- the failure to pay interest, including compounded interest, in full on such class of Debentures for a period of 30 days after the conclusion of a five-year period following the commencement of any deferral period if such deferral period has not ended prior to the conclusion of such five-year period;
- the failure to pay principal of or premium, if any, on, or additional amounts with respect to, such class of Debentures when due; or
- the failure to comply with our covenants or agreements under the applicable Indenture or such class of Debentures.

A default also includes, for example, a failure to pay interest when due if we do not give a timely written notice of our election to commence or continue a deferral period. If we do not give a timely written notice of our election to commence or continue a deferral period and fail to pay interest when due, any holder of the applicable Debentures may seek to enforce our obligation to make the missed interest payment, including through legal process. However, there is no right of acceleration except upon the occurrence of an event of default as described above.

If we do give a timely written notice of our election to commence or continue a deferral period on any interest payment date (and, if such notice continues a deferral period, the deferral period has not continued for five years), then no default arises from our non-payment of interest on such interest payment date.

The Indentures provide that the trustee must give holders notice of all defaults or events of default within 90 days after it becomes actually known to a responsible officer of the trustee. However, except in the case of a default in payment on the Debentures, the trustee will be protected in withholding the notice if its responsible officers determine that withholding of the notice is in the interest of such holders.

If an event of default under the Indentures occurs, the entire principal amount of the applicable Debentures will automatically become due and payable without any declaration or other action on the part of the trustee or any holder of the applicable Debentures. There is no right of acceleration in the case of any payment default or other breaches of covenants under the Indentures or the Debentures. Notwithstanding the foregoing, in the case of a default in the payment of principal or interest on a particular class of Debentures including any compound interest (and, in the case of payment of deferred interest, such failure to pay will have continued for 30 calendar days after the conclusion of the deferral period), the holder of such class of Debentures may, or, if directed by the holders of a majority in principal amount of such class of Debentures, the trustee will, subject to the conditions set forth in the indenture, demand payment of the amount then due and payable and may institute legal proceedings for the collection of such amount if we fail to make payment thereof upon demand.

With respect to each class of the Debentures, the holders of a majority in aggregate principal amount of such class of Debentures may waive any past default, except:

- a default in payment of principal or interest, or any additional amounts; or
- a default under any provision of the applicable Indenture that itself cannot be modified or amended without the consent of the holders of all outstanding Debentures of such class.

With respect to each class of the Debentures, the holders of a majority in principal amount of such class of Debentures will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, subject to the provisions of the applicable Indenture.

We are required to deliver a written statement to the trustee each year that states, to the knowledge of the officer making such statement, whether we have complied with all conditions and covenants under the terms of the applicable Indenture.

The trustee will have no right or obligation under the Indentures or otherwise to exercise any remedies on behalf of any holders of the applicable Debentures pursuant to the applicable Indenture in connection with any default, unless such remedies are available under such Indenture and the trustee is directed to exercise such remedies by the holders of a majority in principal amount of the applicable Debentures pursuant to and subject to the conditions of such Indenture. In connection with any such exercise of remedies, the trustee will be entitled to the same immunities and protections and remedial rights (other than acceleration) as if such default were an event of default.

Discharge, Defeasance and Covenant Defeasance

We may discharge certain obligations to holders of any class of Debentures that have not already been delivered to the trustee for cancellation and that either have become due and payable or will become due and payable within one year, or scheduled for redemption within one year, by depositing with the trustee, in trust, funds in U.S. dollars or in the Foreign Currency in which such Debentures are payable in an amount sufficient to pay the entire indebtedness on such Debentures with respect to principal and any premium, interest and additional amounts to the date of such deposit, if such Debentures have become due and payable, or to the maturity thereof, as the case may be.

Each Indenture provides that, unless the provisions of Section 4.2 thereof are made inapplicable to Debentures of or within any series pursuant to Section 3.1 thereof, we may elect either:

- to defease and be discharged from any and all obligations with respect to such Debentures, except for, among other things, the obligation to pay additional amounts, if any, upon the occurrence of certain events of taxation, assessment or governmental charge with respect to payments on such Debentures and other obligations to register the transfer or exchange of such Debentures, to replace temporary or mutilated, destroyed, lost or stolen Debentures, to maintain an office or agency with respect to such Debentures and to hold moneys for payment in trust; or
- to be released from its obligations with respect to such Debentures under certain covenants as described in the related prospectus supplement, and any omission to comply with such obligations will not constitute a default or an event of default with respect to such Debentures.

Such defeasance or such covenant defeasance, as the case may be, will be conditioned upon the irrevocable deposit by us with the trustee, in trust, of an amount in U.S. dollars or in the Foreign Currency in which such Debentures are payable at stated maturity, or Government Obligations, or both, applicable to such Debentures which through the scheduled payment of principal and interest in accordance with their terms will provide money in an amount sufficient to pay the principal of, any premium and interest on, and any additional amounts with respect to, such Debentures on the scheduled due dates.

Such a trust may only be established if, among other things:

- the applicable defeasance or covenant defeasance does not result in a breach or violation of, or constitute a default under, the applicable Indenture or any other material agreement or instrument to which we are a party or by which we are bound;
- no event of default or event which with notice or lapse of time or both would become an event of default with respect to the Debentures to be defeased will have occurred and be continuing on the date of establishment of such a trust and, with respect to defeasance only, at any time during the period ending on the 123rd day after such date; and
- we have delivered to the trustee an opinion of counsel, as specified in the applicable Indenture, to the effect that the holders of such Debentures will not recognize income, gain or loss for United States Federal income tax purposes as a result of such defeasance or covenant defeasance and will be subject to United States Federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such defeasance or covenant defeasance had not occurred, and such opinion of counsel, in the case of defeasance, must refer to and be based upon a letter ruling of the Internal Revenue Service received by us, a Revenue Ruling published by the Internal Revenue Service or a change in applicable United States Federal income tax law occurring after the date of the applicable Indenture.

Definitions

“**Foreign Currency**” means any currency, currency unit or composite currency, including, without limitation, the euro, issued by the government of one or more countries other than the United States of America or by any recognized confederation or association of such governments.

“**Government Obligations**” means Debentures which are:

- (1) direct obligations of the United States of America or the government or the governments which issued the Foreign Currency in which the Debentures of a particular series are payable, for the payment of which its full faith and credit is pledged; or
- (2) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America or such government or governments which issued the Foreign Currency in which the Debentures of such series are payable, the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America or such other government or governments, which, in the case of clauses (1) and (2), are not callable or redeemable at the option of the issuer or issuers thereof, and will also include a depository receipt issued by a bank or trust company as custodian with respect to any such Government Obligation or a specific payment of interest on or principal of or any other amount with respect to any such Government Obligation held by such custodian for the account of the holder of such depository receipt, provided that, except as required by law, such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian with respect to the Government Obligation or the specific payment of interest on or principal of or any other amount with respect to the Government Obligation evidenced by such depository receipt.

If after we have deposited funds and/or Government Obligations to effect defeasance or covenant defeasance with respect to Debentures of any series:

- (1) the holder of a Debenture of that series is entitled to, and does, elect pursuant to Section 3.1 of the applicable Indenture or the terms of such Debenture to receive payment in a currency other than that in which such deposit has been made in respect of such Debenture; or
- (2) a Conversion Event occurs in respect of the Foreign Currency in which such deposit has been made;

then the indebtedness represented by such Debenture will be deemed to have been, and will be, fully discharged and satisfied through the payment of the principal of, any premium and interest on, and any additional amounts with respect to, such Debenture as such Debenture becomes due out of the proceeds yielded by converting the amount or other properties so deposited in respect of such Debenture into the currency in which such Debenture becomes payable as a result of such election or such Conversion Event based on:

- in the case of payments made pursuant to clause (1) above, the applicable market exchange rate for such currency in effect on the second business day prior to such payment date; or
- with respect to a Conversion Event, the applicable market exchange rate for such Foreign Currency in effect, as nearly as feasible, at the time of the Conversion Event.

“**Conversion Event**” means the cessation of use of:

- a Foreign Currency both by the government of the country or countries which issued such Foreign Currency and for the settlement of transactions by a central bank or other public institutions of or within the international banking community; or
- any currency unit or composite currency for the purposes for which it was established.

All payments of principal of, any premium and interest on, and any additional amounts with respect to, any Debenture that are payable in a Foreign Currency that ceases to be used by the government or governments of issuance will be made in U.S. dollars.

In the event we effect covenant defeasance with respect to any Debentures and such Debentures are declared due and payable because of the occurrence of any event of default other than an event of default with respect to any covenant as to which there has been covenant defeasance, the amount in such Foreign Currency in which such Debentures are payable, and Government Obligations on deposit with the trustee, will be sufficient to pay amounts due on such Debentures at the time of the stated maturity but may not be sufficient to pay amounts due on such Debentures at the time of the acceleration resulting from such event of default. However, we would remain liable to make payment of such amounts due at the time of acceleration.

Book-Entry and Settlement

Each class of Debentures was issued in book-entry form and represented by one or more global debentures. Beneficial interests in the global debentures are represented through book-entry accounts of financial institutions acting on behalf of the beneficial owners as direct and indirect participants in DTC. Investors may elect to hold interests in a global debenture through either DTC (in the United States) or Clearstream Banking, S.A. (“Clearstream”), or Euroclear Bank S.A./N.V., as operator of the Euroclear System (“Euroclear”) (in Europe), either directly if they are participants in such systems or indirectly through organizations that are participants in such systems. Clearstream and Euroclear hold interests on behalf of their participants through customers’ securities accounts in Clearstream’s and Euroclear’s names on the books of their U.S. depositaries, which in turn hold such interests in customers’ securities accounts in U.S. depositaries’ names on the books of DTC. Citibank, N.A. acts as U.S. depositary for Clearstream, and JPMorgan Chase Bank, N.A. acts as the U.S. depositary for Euroclear.

Trustee and Paying Agent

BNY is the trustee under the Indentures governing the Debentures and acts as the paying agent for the Debentures. The global debentures were deposited with, or on behalf of, DTC, New York, New York, as depositary, and registered in the name of Cede & Co., the nominee of DTC.

Governing Law

The Debentures and the Indentures are governed by, and construed in accordance with, the laws of the State of New York.

Subsidiaries of the Registrant (as of December 31, 2019). Ownership is 100% unless otherwise indicated.

<u>Entity Name</u>	<u>Domicile</u>
120dB Films Capital, LLC (90% ownership)	Delaware
120dB Films Lending, LLC	Delaware
27 Leadenhall Street Properties Limited	Jersey
34 Leadenhall Street Limited	Jersey
52 Lime Street Management Limited	United Kingdom
860 Development Co LLC	Delaware
860 Washington Street LLC (75% ownership)	Delaware
Abercrombie Textiles, LLC	Delaware
Acadia Insurance Company	Iowa
Acadia Insurance Group, LLC	Delaware
Admiral Indemnity Company	Delaware
Admiral Insurance Company	Delaware
Admiral Insurance Group, LLC	Delaware
All American Agency Facilities, Inc.	Delaware
All Claims of Nevada, Inc.	Nevada
American Mining Insurance Group, LLC	Delaware
Armada Insurance Services, Inc.	California
Banner Aerospace, Inc.	Delaware
Berkley Accident and Health, LLC	Delaware
Berkley Administrators of Connecticut, Inc.	Delaware
Berkley Alliance Managers, LLC	Delaware
Berkley Alternative Markets Insurance Services, LLC	Delaware
Berkley Argentina de Reaseguros S.A.	Argentina
Berkley Asset Protection Underwriters, LLC	Delaware
Berkley Assurance Company	Iowa
Berkley Aviation, LLC	Delaware
Berkley Canada Inc.	Canada
Berkley Capital Investors, LP	Delaware
Berkley Capital, LLC	Delaware
Berkley Casualty Company	Iowa
Berkley Connect Insurance Solutions, LLC	Delaware
Berkley Custom Insurance Managers, LLC	Delaware
Berkley Dean & Company, Inc.	Delaware
Berkley European Brokers AS	Norway
Berkley European Underwriters AS	Norway
Berkley Facultative Reinsurance Services, LLC	Delaware
Berkley FinSecure, LLC	Delaware
Berkley Global Underwriters, LLC	Delaware
Berkley Healthcare Professional Insurance Services, LLC	Delaware
Berkley Insurance Company	Delaware
Berkley Insurance Company – Escritorio De Representacao do Brasil Ltda.	Brazil
Berkley Insurance Services, LLC	Delaware
Berkley International Aseguradora de Riesgos del Trabajo S. A.	Argentina
Berkley International Brasil Participacoes Ltda.	Brazil
Berkley International Compania de Servicios Mexico, S. A de C. V.	Mexico
Berkley International Compania de Servicios Uruguay, S.A.	Uruguay

Berkley International do Brasil Seguros S. A.	Brazil
Berkley International Holdings, LLC	Delaware
Berkley International Latinoamerica S. A.	Argentina
Berkley International Puerto Rico, LLC	Puerto Rico
Berkley International Seguros Colombia S.A.	Colombia
Berkley International Seguros, S. A. (99.59% ownership)	Argentina
Berkley International Seguros, S. A. (Uruguay)	Uruguay
Berkley International Fianzas Mexico S.A. de C.V.	Mexico
Berkley International Seguros Mexico S.A. de C.V.	Mexico
Berkley International, LLC	New York
Berkley Latin America and Caribbean Managers, LLC	Delaware
Berkley Life and Health Insurance Company	Iowa
Berkley Life Sciences, LLC	Delaware
Berkley London Holdings, Inc.	Delaware
Berkley LS Insurance Solutions, LLC	Delaware
Berkley Managers Insurance Services, LLC	Delaware
Berkley Mid-Atlantic Group, LLC	Delaware
Berkley National Insurance Company	Iowa
Berkley Net Underwriters, LLC	Delaware
Berkley North Pacific Group, LLC	Delaware
Berkley Offshore Underwriting Managers UK, Limited	United Kingdom
Berkley Offshore Underwriting Managers, LLC	Delaware
Berkley Oil & Gas Specialty Services, LLC	Delaware
Berkley Product Recall Insurance Agency, LLC	Delaware
Berkley Professional Liability UK, Limited	United Kingdom
Berkley Professional Liability, LLC	Delaware
Berkley Program Specialists, LLC	Delaware
Berkley Public Entity Managers, LLC	Delaware
Berkley Re America, LLC	Delaware
Berkley Re Direct, LLC	Delaware
Berkley Re UK Limited	United Kingdom
Berkley Regional Insurance Company	Iowa
Berkley Regional Insurance Services, LLC	Delaware
Berkley Regional Specialty, LLC	Delaware
Berkley Risk Administrators Company, LLC	Minnesota
Berkley Risk Administrators of Texas, Inc.	Texas
Berkley Risk Services of Vermont, Inc.	Delaware
Berkley Risk Solutions, LLC	Delaware
Berkley Select, LLC	Delaware
Berkley Southeast Insurance Group, LLC	Delaware
Berkley Specialty Insurance Company	Delaware
Berkley Specialty Insurance Services, LLC	Delaware
Berkley Specialty Underwriting Managers, LLC	Delaware
Berkley Surety Group, LLC	Delaware
Berkley Technology Services LLC	Delaware
Berkley Technology Underwriters, LLC	Delaware
Berkley Ventures, LLC	Delaware
BI China, Limited	Hong Kong
BIA Japan Services GK	Japan
BIL Advisors, LLC	Delaware

Breckenridge Insurance Group, Inc.	Colorado
Breckenridge Insurance Services, LLC	California
Breckenridge IS, Inc.	Delaware
BXM Insurance Services, Inc.	Delaware
Carolina Casualty Insurance Company	Iowa
Carolina Casualty Insurance Group, LLC	Delaware
CC Equity Holdings, LLC	Delaware
CC Investors, LLC	Delaware
Center Place Holdings LLC (92.59% ownership)	Delaware
CGH Claims Service, Inc.	Pennsylvania
CGH Insurance Group, LLC	Alabama
Clermont Insurance Company	Iowa
Clermont Specialty Managers, Ltd	New Jersey
Commodore Re Management Corporation	New Jersey
Continental Western Group, LLC	Delaware
Continental Western Insurance Company	Iowa
Cornerstone Securityholder Representative, LLC	Delaware
Corporate Imaging Concepts, LLC (82.06% ownership)	Delaware
Cotasy Corporation S. A.	Uruguay
CPT Equity LLC	Delaware
Crypton Investment Holdings LLC (89.5% Owned)	Delaware
Crypton LLC	Michigan
Crypton-NewCo Real Estate LLC	Delaware
East Isles Reinsurance, Ltd.	Bermuda
eCompanyStore, LLC	Delaware
Facultative Resources, Inc.	Connecticut
Firemen's Insurance Company of Washington, D.C.	Delaware
Franchise Credit LLC	Delaware
Gemini Insurance Company	Delaware
Gemini Transportation Underwriters, LLC	Delaware
Great Divide Insurance Company	North Dakota
Greenwich AeroGroup Brazil Holdings, Inc.	Delaware
Greenwich AeroGroup Brazil Leasing, Inc.	Delaware
Greenwich AeroGroup International, Inc.	Delaware
Greenwich AeroGroup Serviços de Aviação do Brazil SA	Brazil
Greenwich AeroGroup, Inc.	Delaware
Greenwich Knight Insurance Company	Bermuda
GRG Investment Holdings, Ltd	Cayman Islands
Guangzhou Meridian Chemical Limited	China
Helivia Aero Taxi SA	Brazil
Helivia Participações do Brasil Ltda	Brazil
Insurance Networks Alliance, LLC	Delaware
Interlaken Capital Aviation Holdings, Inc.	Delaware
Interlaken Capital Aviation Services, Inc.	Delaware
Intrepid Direct Insurance Agency, LLC	Kansas
Intrepid Insurance Company	Iowa
Jersey International Brokerage Corporation	New Jersey
Key Care, LLC	North Carolina
Key Risk Insurance Company	Iowa
Key Risk Management Services, LLC	Delaware

Key Risk Underwriting Managers, LLC	Delaware
Lavalier Insurance Services, LLC	Delaware
Lex NY Equities LLC	Delaware
Loan Opportunity Fund I, LLC	Delaware
MADA Reciprocal Services, Inc.	Minnesota
Magaverse, Limited	Hong Kong
Maine Compensation Services, Inc.	Maine
Masterclass, Limited	Hong Kong
Mgaero LLC	Delaware
Middle Patent Capital, LLC	Delaware
Midwest Employers Casualty Company	Delaware
Midwest Employers Casualty Group, LLC	Delaware
Midwest Employers Services, LLC	Delaware
Mining Insurance Markets, Inc.	Alabama
Monitor Liability Managers, LLC	Delaware
MPC Bloomington LLC	Delaware
MPC Memphis HI LLC	Delaware
Nano-Tex Asia Limited	Hong Kong
Nano-Tex LLC	Michigan
Nautilus Excess Insurance Agency, LLC	Delaware
Nautilus Insurance Company	Arizona
Nautilus Insurance Group, LLC	Delaware
Northwest International Underwriting Manager, Inc.	Washington
Overby-Seawell Company	Georgia
Platinum Program Managers & Insurance Services, Inc.	California
Preferred Employers Group, LLC	Delaware
Preferred Employers Insurance Company	California
Professional Aircraft Accessories, Inc.	Delaware
Professional Aviation Associates, Inc.	Georgia
Queen's Island Insurance Company, Ltd.	Bermuda
Rasmussen Agency, Inc.	New Jersey
Regional Excess Underwriters, LLC	Delaware
Reinserco, Inc.	New Jersey
Riverport Insurance Company	Iowa
Riverport Insurance Services, LLC	Delaware
RPW Equity LLC	Delaware
Select Marketing Insurance Services, LLC	California
Signet Star Holdings, Inc.	Delaware
SilverCap-Greenwich, LLC (98.8% ownership)	Delaware
Southeastern Underwriters, Inc.	Virginia
StarNet Insurance Company	Iowa
Starnet Insurance Services, LLC	Delaware
Steamboat Asset Management, LLC	Delaware
Steamboat Opportunity Partners, LLC	Delaware
Summit Aviation, Inc.	Delaware
Surety-Pro Services, Inc.	Delaware
Target Markets, LLC	Delaware
Target Programs, LLC	Delaware
Tri-State Insurance Company of Minnesota	Iowa
Union Insurance Company	Iowa

Union Standard Insurance Group, LLC	Delaware
Union Standard Management Company, Inc.	Texas
Vela Insurance Services, LLC	Delaware
Verus Underwriting Managers, LLC	Delaware
W. R. Berkley Europe AG	Liechtenstein
W. R. Berkley European Holdings AG	Switzerland
W. R. Berkley European Services GmbH	Switzerland
W. R. Berkley London Holdings, Limited	United Kingdom
W. R. Berkley London Staff, Limited	United Kingdom
W. R. Berkley Mexico, S. A. de C. V.	Mexico
W. R. Berkley Spain, S. L. U.	Spain
W. R. Berkley Syndicate Holdings Limited	United Kingdom
W. R. Berkley Syndicate Limited	United Kingdom
W. R. Berkley Syndicate Management Limited	United Kingdom
W. R. Berkley UK Limited	United Kingdom
Western Aircraft, Inc.	Nevada
Western Pinnacle Insurance Services, Inc.	California
WRBC Aviation Leasing, LLC	Delaware
WRBC Corporate Member Limited	United Kingdom
WRBC Development UK Limited	United Kingdom
WRBC Services, Limited	United Kingdom
WRBC Support Services, LLC	Delaware
WRBC Transportation, Inc.	Delaware

Consent of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
W. R. Berkley Corporation:

We consent to the incorporation by reference in the registration statement (No. 333-221559) on Form S-3, and the registration statements (No. 333-225579, No. 33-88640, and No. 333-127598) on Forms S-8 of W. R. Berkley Corporation of our reports dated February 20, 2020, with respect to the consolidated balance sheets of W. R. Berkley Corporation as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedules II to VI, and the effectiveness of internal control over financial reporting as of December 31, 2019, which reports appear in the December 31, 2019 annual report on Form 10-K of W. R. Berkley Corporation. Our report refers to a change in the method of accounting for equity investments measured at fair value with changes in the fair value recognized through net income (other than those accounted for under equity method of accounting or those that result in consolidation of the investee) effective January 1, 2018 due to the adoption of ASU 2016-01, *Financial Instruments*.

/S/ KPMG LLP

New York, New York
February 20, 2020

CERTIFICATIONS

I, W. Robert Berkley, Jr., President and Chief Executive Officer of W. R. Berkley Corporation (the “registrant”), certify that:

1. I have reviewed this annual report on Form 10-K of 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 20, 2020

/s/ W. Robert Berkley, Jr.

W. Robert Berkley, Jr.

President and Chief Executive Officer

CERTIFICATIONS

I, Richard M. Baio, Executive Vice President - Chief Financial Officer and Treasurer of W. R. Berkley Corporation (the “registrant”), certify that:

1. I have reviewed this annual report on Form 10-K of 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 20, 2020

/s/ Richard M. Baio

Richard M. Baio
Executive Vice President,
Chief Financial Officer and Treasurer

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

In connection with the Annual Report of W. R. Berkley Corporation (the “Company”) on Form 10-K for the fiscal year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), we, W. Robert Berkley, Jr., President and Chief Executive Officer of the Company, and Richard M. Baio, Executive Vice President-Chief Financial Officer and Treasurer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) 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.

/s/ W. Robert Berkley, Jr.

W. Robert Berkley, Jr.
President and Chief Executive Officer

/s/ Richard M. Baio

Richard M. Baio
Executive Vice President — Chief Financial Officer and Treasurer

February 20, 2020

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.