

**United States Securities and Exchange Commission
Washington, D.C. 20549**

Form 10-K

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

For the fiscal year ended December 31, 2020.

☐ 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 000-04604

Cincinnati Financial Corporation

(Exact name of registrant as specified in its charter)

Ohio
(State of incorporation)

31-0746871
(I.R.S. Employer Identification No.)

6200 S. Gilmore Road
Fairfield, Ohio 45014-5141
(Address of principal executive offices) (Zip Code)
(513) 870-2000
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$2.00 par	CINF	Nasdaq Global Select Market

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

None

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

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

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

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 if Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

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

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

The aggregate market value of voting stock held by nonaffiliates of the Registrant based on the closing price of \$64.03 per share as reported on Nasdaq Global Select Market on June 30, 2020, was \$9,621,748,017.

As of February 19, 2021, there were 161,201,922 shares of common stock outstanding.

Document Incorporated by Reference

Portions of the definitive Proxy Statement for Cincinnati Financial Corporation's Annual Meeting of Shareholders to be held on May 8, 2021, are incorporated by reference into Part III of this Form 10-K.

2020 ANNUAL REPORT ON FORM 10-K

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Part I

ITEM 1. Business

Cincinnati Financial Corporation – Introduction

We are an Ohio corporation formed in 1968. Our lead subsidiary, The Cincinnati Insurance Company, was founded in 1950. Our main business is property casualty insurance marketed through independent insurance agencies in 45 states. Our headquarters is in Fairfield, Ohio.

Cincinnati Financial Corporation owns 100% of four subsidiaries: The Cincinnati Insurance Company (Cincinnati Insurance), Cincinnati Global Underwriting Ltd.SM (Cincinnati Global), CSU Producer Resources Inc. and CFC Investment Company. In addition, the parent company has an investment portfolio, owns the headquarters property and is responsible for corporate borrowings and shareholder dividends.

The Cincinnati Insurance Company owns 100% of four additional insurance subsidiaries. Our standard market property casualty insurance group includes two of those subsidiaries – The Cincinnati Casualty Company and The Cincinnati Indemnity Company. This group writes a broad range of business, homeowner and auto policies. The Cincinnati Insurance Company also conducts the business of our reinsurance assumed operations, known as Cincinnati Re[®]. Other subsidiaries of The Cincinnati Insurance Company include: The Cincinnati Life Insurance Company (Cincinnati Life), which provides life insurance policies and fixed annuities; and The Cincinnati Specialty Underwriters Insurance Company (Cincinnati Specialty Underwriters), which offers excess and surplus lines insurance products. In this report and elsewhere we often refer to any or all of these five companies as The Cincinnati Insurance Companies.

Cincinnati Global owns 100% of Cincinnati Global Underwriting Agency Ltd.SM, a London-based, global specialty underwriter for Lloyd's Syndicate 318, and Cincinnati Global Dedicated No. 2 Ltd.SM, a Lloyd's corporate member and vehicle through which capital is provided by Cincinnati Financial Corporation and third-party names at Lloyd's.

The two noninsurance subsidiaries of Cincinnati Financial Corporation are CSU Producer Resources, which offers insurance brokerage services to our independent agencies so their clients can access our excess and surplus lines insurance products; and CFC Investment Company, which offers commercial leasing and financing services to our agencies, their clients and other customers.

Our filings with the U.S. Securities and Exchange Commission (SEC) are available on our website, cinfm.com/investors, as soon as possible after they have been filed with the SEC. Reports filed with the SEC may also be viewed at sec.gov. These filings include annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. In this report we reference various websites. These websites, including our own, are not incorporated by reference in this Annual Report on Form 10-K.

Periodically, we refer to estimated industry data so that we can give information about our performance versus the overall U.S. insurance industry. Unless otherwise noted, the industry data is prepared by A.M. Best, a leading insurance industry statistical, analytical and insurer financial strength and credit rating organization. Information from A.M. Best is presented on a statutory accounting basis for insurance company regulation in the United States of America. When we provide our results on a comparable statutory accounting basis, we label it as such; all other company data is presented in accordance with accounting principles generally accepted in the United States of America (GAAP).

Our Business and Our Strategy

Introduction

The Cincinnati Insurance Company was founded more than 70 years ago by four independent insurance agents. They established the mission that continues to guide all of the companies in the Cincinnati Financial Corporation family – to grow profitably and enhance the ability of local independent insurance agents to deliver quality financial protection to the people and businesses they serve by:

- providing insurance market stability through financial strength
- producing competitive, up-to-date products and services
- developing associates committed to superior service

At the end of 2020, we employed 5,266 associates, including 3,362 headquarters associates who provide support to 1,849 field associates and 55 associates for Cincinnati Global. The associate voluntary turnover rate has been approximately 5% for several years.

We believe our compensation, training, technology, inclusive culture and other support help to develop, attract and retain our associates, which is critical to our strategy that emphasizes superior service to agencies and their clients, as described in this report. Our goal is to hire job candidates with promise, matching their strengths to positions within the company and providing resources to help them meet professional and personal goals. We are committed to providing equal opportunity for all associates, encouraging a work environment free from unlawful discrimination and harassment.

We use multiple channels to ensure we recruit a diverse workforce rich with ideas and knowledge. For example, we build relationships with future talent by partnering with career services department, faculty and staff, and Diversity and Inclusion Offices at local and regional colleges and universities along with historically Black colleges and universities.

We offer a base pay level for all roles that is competitive, market-based and re-evaluated on a recurring basis. The base pay is complemented by a matching 401(k) program, annual cash bonus and stock ownership opportunities along with healthcare benefits to provide a comprehensive compensation and benefits package. In addition, we have many special programs that appeal to associates while aligning with our corporate values. We believe our voluntary turnover rate indicates overall associate satisfaction with their working environment, compensation and benefits.

We strive to offer equal pay for equal work and use independent consultants to conduct gender and ethnic minority pay equity studies examining total direct compensation, which consists of base salary, cash bonus and equity awards. Using a multivariate regression analysis, the independent studies in 2020 showed that we administer pay fairly and equitably because the factors used to make compensation decisions, such as role, salary grade, tenure and performance do in fact drive compensation awarded to each associate. The studies also showed that there remains an adjusted gender pay gap of 1.0%, in favor of men, and an adjusted ethnic minority pay gap of 1.5%, in favor of ethnic minorities.

We offer all regular, full- and part-time associates the opportunity to participate in the CFC Savings Plan, our 401(k) plan. We also offer all full-time associates the opportunity to purchase health, prescription, vision and dental insurance. Associates enrolled in our health plan can receive a free biometric screening – either onsite at our headquarters or with their personal physician.

While providing stock compensation at all levels of an organization may not be a common business practice, we firmly believe that stock ownership helps drive good decision making and encourages a long-term view by associates. We historically grant annual stock-based compensation to full-time, salaried associates in the form of stock options and restricted stock units that vest over time. In addition, each year all regular, full-time associates – salaried and hourly – are awarded one share of stock for each full calendar year of service, up to 10 shares, through our Holiday Stock Plan.

Additional human capital information is available in our Environmental, Social and Governance Report available on the Sustainability page of our website, cinfin.com/sustainability.

At year-end 2020, a select group of independent agencies in 45 states actively marketed our property casualty insurance within their communities. Standard market commercial lines and excess and surplus lines policies were marketed in 41 of those states. Personal lines policies were marketed in 43 of those states. Within our select group of agencies, we also seek to become the life insurance carrier of choice and to help agents and their clients – our policyholders – by offering leasing and financing services.

Three competitive advantages distinguish our company, positioning us to build shareholder value and to be successful overall:

- Commitment to our professional independent insurance agencies and to their continued success
- Financial strength to fulfill our promises and be a consistent market for our agents' business, supporting stability and confidence
- Operating structure that supports local decision making, showcasing our claims excellence and allowing us to balance growth with underwriting discipline

The primary sources of our company's net income are summarized below. We discuss the contribution to net income from each source in Item 7, Corporate Financial Highlights of Management's Discussion and Analysis.

Underwriting profit (loss) – Includes revenues from earned premiums for insurance and reinsurance policies or contracts, reduced by losses and loss expenses from associated insurance coverages. Those revenues are further reduced by underwriting expenses associated with marketing policies or related to administration of our insurance operation. The net result represents an underwriting profit when revenues exceed losses and expenses.

Investment income – Is generated primarily from investing the premiums collected for insurance policies sold, until funds are needed to pay losses for insurance claims or other expenses. Interest income from bond investments or dividend income from stock investments are the main categories of our investment income, with additional contribution from compounding effects over time.

Investment gains and losses – Occur from appreciation or depreciation of invested assets over time. Gains or losses are generally recognized from changes in market values of equity securities without a sale or when invested assets are sold or become impaired.

Independent Insurance Agency Marketplace

The U.S. property casualty insurance industry is a highly competitive marketplace with more than 2,000 stock and mutual companies operating independently or in groups. No single company or group dominates across all product lines and states. Standard market insurance companies (carriers) can market a broad array of products nationally or:

- choose to sell a limited product line or only one type of insurance (monoline carrier)
- target a certain segment of the market (for example, personal insurance)
- focus on one or more states or regions (regional carrier)

Standard market property casualty insurers generally offer insurance products through one or more distribution channels:

- independent agents, who represent multiple carriers
- captive agents, who represent one carrier exclusively
- direct marketing to consumers

For the most part, we compete with standard market insurance companies that market through independent insurance agents. Agencies marketing our commercial lines or personal lines products typically represent several standard market insurance carriers, including both national and regional carriers, many which are mutual companies. We also compete with carriers that market personal lines products through captive agents and direct writers. Some of our agencies describe their roles as brokers instead of agents. Distribution through independent insurance agents or brokers represents nearly 60% of overall U.S. property casualty insurance premiums and approximately 80% of commercial property casualty insurance premiums, according to studies by the Independent Insurance Agents and Brokers of America.

We are fully committed to the independent agency channel for marketing our insurance policies, while Cincinnati Re typically markets through broker organizations or similar intermediaries that specialize in reinsurance. Cincinnati Global markets much of its business through coverholders, which are entities that help insurance companies with processes such as writing policies and collecting premiums. For marketing standard lines insurance products, we choose independent agencies that share our philosophies. They do business person to person; offer broad, value-added services; maintain sound balance sheets; and manage their agencies professionally, targeting long-term success. We develop our relationships with agencies that are active in their communities, providing important knowledge of local market trends, opportunities and challenges.

Our associates work to support agencies with tools and resources that help communicate the value of choosing an independent insurance agent and our insurance policies to their clients and prospective clients. We plan to build on our recent marketing efforts and continue with our national advertising campaign in 2021. Our intent is to increase the visibility of our company, supporting our agents' efforts as they recommend policies and services offered through The Cincinnati Insurance Companies. We also continue to build our social media presence, focusing on providing content that agents can share on their own sites.

We help our agencies meet the broader needs of their clients and increase and diversify their revenues and profitability by offering insurance solutions beyond our standard market property casualty insurance products. We market life insurance products through the agencies that offer our property casualty products and through other independent life agencies that represent Cincinnati Life without also representing our other subsidiaries. We operate our own excess and surplus lines insurance brokerage firm and insurance carrier so that we can offer our excess and surplus lines products exclusively to the independent agencies who market our other property casualty insurance products.

For our life insurance operation, property casualty agencies make up the main distribution system. To help that operation build scale, we also develop life insurance business from other independent life insurance agencies in geographic markets underserved through our property casualty agencies. We are careful to solicit business from these other agencies in a manner that does not compete with the life insurance marketing and sales efforts of our property casualty agencies. Cincinnati Life emphasizes up-to-date products, responsive underwriting, high-quality service and competitive pricing.

Our excess and surplus lines insurance operation helps meet the specific insurance needs of certain agency clients. Generally, excess and surplus lines insurance carriers provide insurance that is unavailable in the standard market due to market conditions or characteristics of the insured persons or organizations that are caused by their nature, claim history or the characteristics of their business. Insurers operating in the excess and surplus lines marketplace generally market business through excess and surplus lines brokers, whether they are small specialty insurers or specialized divisions of larger insurance organizations. Agencies have access to Cincinnati Specialty Underwriters' product line through CSU Producer Resources, the wholly owned insurance brokerage subsidiary of Cincinnati Financial Corporation. By providing superior service, we can help our agencies grow while also profitably growing our property casualty insurance business.

The table below includes data about property casualty agency relationships that market our standard market insurance products. It does not include Lloyd's brokers or coverholders that source business for Cincinnati Global.

Agency Data	Years ended December 31,	
	2020	2019
Property casualty agency relationships, January 1	1,796	1,757
New appointments that market all or most of The Cincinnati Insurance Companies' products	133	117
New appointments that market only personal lines insurance products for Cincinnati Insurance	58	70
Changes due to consolidation and other	(139)	(148)
Property casualty agency relationships, December 31	1,848	1,796
Property casualty reporting locations	2,578	2,458
New relationship appointments	119	112
Active states	45	45

The annual total of agency new appointments may be partially offset by other changes in agency structures, such as consolidation through mergers or acquisitions. An increasing number of agencies have multiple, separately identifiable locations, reflecting their growth as well as consolidation of ownership within the independent agency marketplace. The number of reporting agency locations indicates our agents' regional scope and the extent of our presence within our active states. The difference between new appointments in total and the number of new relationships represents either: new branch offices opened by existing Cincinnati agencies; or agencies that merged with another Cincinnati agency and we still believed would produce a meaningful amount of new business premiums.

On average, we have a 6.6% share of the standard lines property casualty insurance purchased through our reporting agency locations, according to 2019 data from agency surveys. Our share is 12.5% in reporting agency locations that have represented us for more than 10 years; 5.7% in agencies that have represented us for six to 10 years; 2.4% in agencies that have represented us for two to five years; and 0.3% in agencies that have represented us for one year or less.

Our largest single agency relationship accounted for approximately 1.3% of our total property casualty earned premiums in 2020. No aggregate locations under a single ownership structure accounted for more than 4% of our earned premiums in 2020.

Financial Strength

We believe that our financial strength and strong capital and surplus position, reflected in our insurer financial strength ratings, are clear, competitive advantages in the segments of the insurance marketplace that we serve. This strength supports the consistent, predictable performance that our policyholders, agents, associates and shareholders have always expected and received, helping us withstand significant challenges.

While the potential exists for short-term financial performance variability due to our exposures to possible natural or man-made catastrophes or to significant capital market losses, the rating agencies consistently assert that we have built appropriate financial strength and flexibility to manage that variability. We remain committed to strategies that emphasize being a consistent, stable market for our agents' business rather than seeking short-term benefits that might accrue by quick, opportunistic reaction to changes in market conditions.

We use various principles and practices such as diversification and enterprise risk management to maintain strong capital. For example, we maintain a diversified investment portfolio by reviewing and applying specific parameters and tolerances.

Our \$12.338 billion fixed-maturity portfolio is diversified and exceeds total insurance reserves. The portfolio had an average rating of A3/A, and its fair value exceeded total insurance reserve liabilities by approximately 28% at December 31, 2020. No corporate bond exposure accounted for more than 0.7% of our fixed-maturity portfolio, and no municipal exposure accounted for more than 0.2%.

The strength of our fixed-maturity portfolio provides an opportunity to invest for potential capital appreciation by purchasing equity securities. Our \$8.856 billion equity portfolio minimizes concentrations in single stocks or industries. At December 31, 2020, no single security accounted for more than 7.6% of our portfolio of publicly traded common stocks, and no single sector accounted for more than 29%.

Strong liquidity increases our flexibility through all periods to maintain our cash dividend and to continue to invest in and expand our insurance operations. At December 31, 2020, we held \$3.916 billion of our cash and invested assets at the parent-company level, of which \$3.686 billion, or 94.1%, was invested in common stocks, and \$16 million, or 0.4%, was cash and cash equivalents.

We minimize reliance on debt as a source of capital, with a debt-to-total-capital ratio of 7.2% at year-end 2020. Long-term debt at year-end 2020 totaled \$788 million, matching year-end 2019, and our short-term debt was \$54 million, up from \$39 million at the end of the prior year. The long-term debt consists of three nonconvertible, noncallable debentures, two due in 2028 and one in 2034. Ratings for our long-term debt are discussed in Item 7, Liquidity and Capital Resources, Long-Term Debt of Management's Discussion and Analysis.

At year-end 2020 and 2019, risk-based capital (RBC) for our standard market property casualty insurance, excess and surplus lines insurance and life insurance subsidiaries was strong, far exceeding regulatory requirements.

We ended 2020 with a 1.0-to-1 ratio of property casualty premiums to surplus, a key measure of property casualty insurance company capacity and security. A lower ratio indicates more security for policyholders and greater capacity for growth by an insurer. We believe our ratio provides ample flexibility to diversify risk by expanding our operations into new geographies and product areas. The estimated industry average ratio was 0.7-to-1 at year-end 2020.

We ended 2020 with a 7.1% ratio of life statutory adjusted risk-based surplus to liabilities, a key measure of life insurance company capital strength. A higher ratio indicates an insurer's stronger security for policyholders and capacity to support business growth.

(Dollars in millions) Statutory Information

	At December 31,	
	2020	2019
Standard market property casualty insurance subsidiary		
Statutory capital and surplus	\$ 5,838	\$ 5,620
Risk-based capital	5,860	5,654
Authorized control level risk-based capital	924	823
Risk-based capital to authorized control level risk-based capital ratio	6.3	6.9
Written premium to surplus ratio	1.0	1.0
Excess and surplus lines insurance subsidiary		
Statutory capital and surplus	\$ 528	\$ 526
Risk-based capital	528	526
Authorized control level risk-based capital	69	54
Risk-based capital to authorized control level risk-based capital ratio	7.7	9.8
Written premium to surplus ratio	0.7	0.6
Life insurance subsidiary		
Statutory capital and surplus	\$ 241	\$ 204
Risk-based capital	263	239
Authorized control level risk-based capital	58	53
Total liabilities excluding separate account business	3,723	3,643
Risk-based capital to authorized control level risk-based capital ratio	4.6	4.5
Life statutory risk-based adjusted surplus to liabilities ratio	7.1	6.6

On a statutory consolidated property casualty insurance basis, the ratio of investments in common stock, at fair value, to statutory capital and surplus was 82.6% at year-end 2020 compared with 78.7% at year-end 2019.

Cincinnati Financial Corporation's senior debt is rated by four independent rating firms. In addition, the rating firms award our property casualty and life operations insurance financial strength ratings based on their quantitative and qualitative analyses. These ratings assess an insurer's ability to meet financial obligations to policyholders and do not necessarily address all of the matters that may be important to shareholders. Ratings may be subject to revision or withdrawal at any time by the ratings agency, and each rating should be evaluated independently of any other rating.

At February 24, 2021, our insurance subsidiaries continued to be highly rated.

Insurer Financial Strength Ratings										
Rating agency	Standard market property casualty insurance subsidiary			Life insurance subsidiary			Excess and surplus lines insurance subsidiary			Outlook
			Rating Tier			Rating Tier			Rating Tier	
A.M. Best Company <i>ambest.com</i>	A+	Superior	2 of 16	A+	Superior	2 of 16	A+	Superior	2 of 16	Stable
Fitch Ratings <i>fitchratings.com</i>	A+	Strong	5 of 21	A+	Strong	5 of 21	-	-	-	Stable
Moody's Investors Service <i>moodys.com</i>	A1	Good	5 of 21	-	-	-	-	-	-	Stable
S&P Global Ratings <i>spratings.com</i>	A+	Strong	5 of 21	A+	Strong	5 of 21	-	-	-	Stable

On January 27, 2021, A.M. Best affirmed its ratings, continuing its stable outlook. On November 24, 2020, Fitch affirmed its ratings, continuing its stable outlook. On July 6, 2020, Moody's affirmed its ratings, returning its outlook to stable. On June 30, 2020, S&P affirmed its ratings, continuing its stable outlook.

Our debt ratings are discussed in Item 7, Liquidity and Capital Resources, Long-Term Debt of Management's Discussion and Analysis.

Operating Structure

We offer our broad array of insurance products through the independent agency distribution channel. We recognize that locally based independent agencies have relationships in their communities and local marketplace intelligence that can lead to profitable business and policyholder satisfaction and loyalty. Several of our strategic initiatives are intended not only to help us compete but also to enhance support of agencies that represent us, thereby contributing to agency success. We seek to be a consistent and predictable property casualty carrier that agencies can rely on to serve their clients.

In our 10 highest volume states for consolidated property casualty premiums, 1,316 reporting agency locations wrote 53.3% of our 2020 consolidated property casualty earned premium volume compared with 1,200 locations and 54.8% in 2019. We continue efforts to geographically diversify our property casualty risks.

Our 10 largest states based on property casualty premium volume, excluding Cincinnati Re and Cincinnati Global, are shown in the table below.

(Dollars in millions)

	Earned premiums	% of total earned	Agency locations	Average premium per location
Year ended December 31, 2020				
Ohio	\$ 844	14.8 %	251	\$ 3.4
Illinois	310	5.4	165	1.9
Georgia	291	5.1	106	2.7
North Carolina	283	5.0	112	2.5
Pennsylvania	269	4.7	147	1.8
Indiana	258	4.5	114	2.3
New York	211	3.7	146	1.4
Michigan	199	3.5	137	1.5
Tennessee	193	3.4	66	2.9
Virginia	184	3.2	72	2.6

Field Focus Emphasizing Service

We rely on our force of 1,849 field associates to provide service and be accountable to our agencies for decisions we make at the local level. These associates live in the communities our agents serve, so they are readily available when agencies or policyholders need them. While their work is often conducted at the premises of the agency or policyholder, they also work from offices in their homes. Headquarters associates support agencies and field associates with underwriting, accounting, technology assistance, training and other services. Company executives and headquarters associates typically travel to visit agencies, strengthening the personal relationships we have with these organizations. Agents have opportunities for direct, personal conversations with our senior management team, and headquarters associates have opportunities to refresh their knowledge of marketplace conditions and field activities.

The field team is coordinated by field marketing representatives responsible for underwriting new commercial lines business. They are joined by field representatives specializing in claims, loss control, commercial lines key accounts, personal lines, excess and surplus lines, machinery and equipment, management liability and surety, premium audit and life insurance. The field team provides a variety of services, such as recommending specific actions to improve the safety of the policyholder's operations. We seek to develop long-term relationships by understanding the unique needs of each agency's clients, who are also our policyholders.

Technology enhances our service to agencies, allowing them to more easily access our systems and process business transactions. Policyholders can conveniently access pertinent policy information online, helping to reduce costs for agencies and the company. Technology and ongoing training also help our associates collaborate and process business efficiently, providing more time for personal service to agencies and their clients.

We also provide and continue to develop enhanced, tailored services offered at the time a claim is reported for an insured loss event. Those services include assisting with car rental or towing, arranging temporary housing and coordinating emergency repairs to homes so additional damage is minimized.

Our claims philosophy reflects our belief that we prosper as a company by responding to claims person to person, paying covered claims promptly, preventing false claims from unfairly adding to overall premiums and building financial strength to meet future obligations.

Our 944 locally based field claims associates work from their homes and are assigned to specific agencies. They respond personally to policyholders and claimants and are equipped to handle a claim from nearly anywhere. We believe we have a competitive advantage because of the person-to-person approach and the resulting high level of service that our field claims representatives and Express Claims Center associates deliver. For field claims associates handling excess and surplus lines claims, guidance is provided by headquarters-based excess and surplus lines claims managers. Claims may be reported directly to us by calling our claims call center, online via our company website or through the MyCincinnati app using a mobile device.

Catastrophe response teams are comprised of our experienced field claims associates who have the authority they need to do their jobs. In times of widespread loss, our field claims representatives confidently and quickly resolve claims, with the ability to provide claims payments on the same day they inspect the loss. Technology helps to enable fast initial contact with policyholders and easy sharing of information and data among storm teams, headquarters associates and local field claims representatives. When hurricanes or other weather events are predicted, we can identify through mapping technologies the expected number of our policyholders that may be impacted by the event and choose to have catastrophe response team members travel to strategic locations near the expected impact area. They are then in position to quickly get to the affected area and begin providing service to policyholders.

Our 30 associates working in the Special Investigations Unit (SIU) include former law enforcement and claims professionals whose qualifications make them well suited to gathering facts to uncover potential fraud. While we believe our job is to pay what is due under each policy contract, we also want to prevent false claims from unfairly increasing overall premiums. Our SIU also operates a computer forensics lab that supports field investigation efforts in various ways including assistance with video evidence and data recovery.

We seek to attract and retain high-quality independent insurance agencies with knowledgeable, professional staffs. In turn, we make an exceptionally strong commitment to assist them in keeping their knowledge up to date and educating new people they bring on board as they grow. This includes offering classes, usually at no cost to agencies, except travel-related expenses they may incur, and other training support. We also offer noninsurance financial services. We believe that providing these services enhances agency relationships with the company and their clients, increasing loyalty while diversifying the agency's revenues.

Insurance Products

We provide well-designed property casualty and life insurance products to bring policyholders convenience, discounts and a reduced risk of coverage gaps or disputes. For most agencies that represent us, we believe we offer insurance solutions for approximately 75% of the typical insurable risks of their clients. Products for various business lines within our reporting segments include insurance coverages for business property and liability, automobiles and homes.

The following table shows net written premiums by segment and business line at year-end 2020, 2019 and 2018:

(Dollars in millions)	2020	2019	2018	Percent of total 2020
Segment:				
Commercial lines insurance	\$ 3,534	\$ 3,410	\$ 3,245	57.1 %
Personal lines insurance	1,503	1,435	1,378	24.3
Excess and surplus lines insurance	348	303	249	5.6
Life insurance	328	318	298	5.3
Other	479	368	158	7.7
Total	\$ 6,192	\$ 5,834	\$ 5,328	100.0 %
Business line:				
Commercial lines insurance:				
Commercial casualty	\$ 1,205	\$ 1,131	\$ 1,080	19.5 %
Commercial property	1,019	985	932	16.5
Commercial auto	763	735	682	12.3
Workers' compensation	266	294	311	4.3
Other commercial	281	265	240	4.5
Total commercial lines insurance	3,534	3,410	3,245	57.1
Personal lines insurance:				
Personal auto	611	620	622	9.9
Homeowner	693	631	588	11.2
Other personal	199	184	168	3.2
Total personal lines insurance	1,503	1,435	1,378	24.3
Excess and surplus lines insurance	348	303	249	5.6
Life insurance:				
Term life insurance	202	196	181	3.3
Universal life insurance	34	37	44	0.5
Other life insurance and annuity products	92	85	73	1.5
Subtotal	328	318	298	5.3
Other	479	368	158	7.7
Total	\$ 6,192	\$ 5,834	\$ 5,328	100.0 %

We discuss our insurance segments in their respective sections later in this report.

Strategic Initiatives to Manage Insurance Profitability and Drive Premium Growth

Management has identified a strategy that can position us for long-term success. The board of directors and management expect execution of our strategic plan to create significant value for shareholders over time. We broadly group key strategic initiatives into two areas of focus – managing insurance profitability and driving premium growth. These areas correlate with how we measure progress toward our long-term financial objectives. Our strategic priorities include meeting the wants and needs of our agent customers, attracting and developing talented associates, providing comprehensive product solutions, achieving best-in-class field service and continually enhancing operational efficiency and effectiveness. We believe successful execution of our long-term strategy and related shorter-term initiatives will help us achieve our long-term objectives despite potential unfavorable shorter-term effects of difficult economic, market or pricing cycles. We describe our expectations for the results of these initiatives in Item 7, Executive Summary of Management's Discussion and Analysis.

Effective capital management is an important part of creating long-term shareholder value, serving as a foundation to support other strategic areas focused on profitable growth of our insurance business. Our capital management philosophy is intended to preserve and build our capital while maintaining appropriate liquidity. A strong capital position provides the capacity to support premium growth, and liquidity provides for our investment in the people and infrastructure needed to implement our strategic initiatives. Our strong capital and liquidity also provide financial flexibility for shareholder dividends or other capital management actions.

We continue to enhance our property casualty underwriting expertise, including ongoing training for associates and providing them with additional technology, to effectively and efficiently underwrite individual policies and process transactions. Ongoing initiatives supporting this work include expanding our pricing and segmentation capabilities through experience and use of predictive analytics and additional data. Our segmentation efforts emphasize identification and retention of insurance policies we believe have relatively stronger pricing, while seeking more aggressive renewal terms and conditions on policies we believe have relatively weaker pricing. Expansion of risk management and loss control programs aim to further improve results for our commercial lines insurance segment, while enhanced pricing precision tools to additional states for our personal lines insurance segment can also improve profitability.

We take ongoing actions intended to improve efficiency and make it easier for agencies and their clients to do business with us. In addition to benefiting agencies we serve, improved processes support our strategy, helping to more quickly deploy product or service enhancements. They also help reduce internal costs and allow us to focus more resources on agency services and on providing local, individualized insurance solutions for small businesses and other agency clients. Initiatives include continuing to enhance the experiences of agencies and policy consumers through customer engagement as we provide convenient policy information for billing, claims and other areas. Other ongoing initiatives aim for continuous improvement of workflow tools and processes for underwriters. To help guide our strategic efforts, we have placed an emphasis on innovation to accelerate improvement and to also favorably position us for the future. We find innovative ideas in many places, including: internally through management and other associates, with our traditional business partners and in the start-up business community.

We also seek to further penetrate insurance markets as we strive to be the best company serving independent insurance agencies. Initiatives aimed at specific market opportunities or designed to enhance service can help our agents to grow and to increase our share of their business. We continue to increase our capabilities to successfully underwrite both larger policies, which we refer to as key accounts, or small business accounts that require greater efficiency. Our growth plans incorporate general business statistics and historical profitability trends to estimate premium growth from existing agencies and to make careful projections to assess the number of additional agencies needed. Our focus remains on key components of agent satisfaction based on factors that agents tell us are most important. This includes increasing opportunities for agencies to cross-serve their clients by providing updated products and services that aim to meet their life insurance needs.

We continue to appoint new agencies to develop additional points of distribution. In 2021, we are planning approximately 120 appointments of independent agencies that offer most or all of our property casualty insurance products. We generally earn a 10% share of an agency's business within 10 years of its appointment. See Item 1, Our Business and Our Strategy, Independent Insurance Agency Marketplace, for additional discussion.

Our Segments

Consolidated financial results primarily reflect the results of our five reporting segments. These segments are defined based on financial information we use to evaluate performance and to determine the allocation of assets.

- Commercial lines insurance
- Personal lines insurance
- Excess and surplus lines insurance
- Life insurance
- Investments

Revenues, income before income taxes and identifiable assets for each segment are shown in Item 8, Note 18 of the Consolidated Financial Statements. Some of that information is discussed in this section, where we explain the business operations of each segment. The financial performance of each segment is discussed in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

Commercial Lines Insurance Segment

In 2020, the commercial lines insurance segment contributed net earned premiums of \$3.476 billion, representing 46.1% of consolidated total revenues. This segment reported profit before income taxes of \$64 million. Commercial lines net earned premiums rose 5% in 2020 and 3% in 2019.

We believe that our commercial lines business is best measured and evaluated on a segment basis. However, we also provide selected line of business data to summarize growth and profitability trends separately for our business lines. The five commercial business lines are:

Commercial casualty – Provides coverage to businesses against third-party liability from accidents occurring on their premises or arising out of their operations, including injuries sustained from products or liability related to professional services. Specialized casualty policies may include similar coverage such as umbrella liability or employment practices. The commercial casualty business line includes liability coverage written as part of commercial package policies.

Commercial property – Provides coverage for loss or damage to buildings, inventory and equipment caused by covered causes of loss such as fire, wind, hail, water, theft and vandalism, as well as business interruption resulting from a covered loss. Commercial property also includes other coverages such as inland marine, which covers losses related to builder's risk, cargo or equipment. Various property coverages can be written as stand-alone policies or can be added to a commercial package policy.

Commercial auto – Protects businesses against liability to others for both bodily injury and property damage, medical payments to insureds and occupants of their vehicles, physical damage to an insured's own vehicle from collision and various other perils, and damages caused by uninsured motorists.

Workers' compensation – Covers employers for government-specified benefits from work-related injuries to employees.

Other commercial lines – This includes several other types of insurance products for businesses, including:

- **Management liability and surety** – Includes director and officer (D&O) liability insurance, which covers liability for actual or alleged errors in judgment, breaches of duty or other wrongful acts related to activities of organizations and can optionally include other liability coverages. We market primarily to nonprofit organizations, privately held businesses, healthcare organizations, financial institutions and educational institutions. The for-profit portion includes approximately 160 bank or savings and loan financial institutions, with none having assets of \$1 billion or more. The surety portion includes contract and commercial surety bonds for losses resulting from dishonesty, failure to perform and other acts and also includes fidelity bonds for fraudulent acts by specified individuals or dishonest acts by employees.
- **Machinery and equipment** – Specialized coverage provides protection for loss or damage to boilers and machinery, including production and computer equipment and business interruption, due to sudden and accidental mechanical breakdown, steam explosion or artificially generated electrical current.

Our history of emphasizing products and services that agencies can market to small or midsize businesses in their communities remains a critical piece of our strategy even as we expand our appetite to insure larger businesses. While some of our property casualty agencies market only our personal lines or management liability and surety products, approximately 85% offer some or all of our standard market commercial insurance products.

In 2020, our 10 highest volume commercial lines states generated 57.1% of our earned premiums compared with 58.4% in 2019. The aggregate number of reporting agency locations in our 10 highest volume states increased to 1,150 in 2020 from 1,138 in 2019.

Our 10 largest states based on commercial lines premium volume are shown in the table below.

(Dollars in millions)	Earned premiums	% of total earned	Agency locations	Average premium per location
Year ended December 31, 2020				
Ohio	\$ 509	14.6 %	242	\$ 2.1
Pennsylvania	214	6.2	135	1.6
Illinois	213	6.1	149	1.4
North Carolina	187	5.4	109	1.7
Indiana	177	5.1	110	1.6
Georgia	153	4.4	95	1.6
Virginia	144	4.1	66	2.2
Tennessee	138	4.0	65	2.1
Michigan	132	3.8	129	1.0
Missouri	120	3.4	50	2.4

For new commercial lines business, case-by-case underwriting and pricing is coordinated by our locally based field marketing representatives who are also responsible for selecting new independent agencies. Our agents and our team of field associates get to know the people and businesses in their communities and can make informed decisions about each risk.

Commercial lines policy renewals are managed by headquarters underwriters who are assigned to specific agencies and consult with local field associates as needed. As part of our team approach, headquarters underwriters also help oversee agency growth and profitability. They are responsible for formal issuance of all new business and renewal policies as well as policy endorsements. Further, the headquarters underwriters provide day-to-day customer service to agencies and our field marketing representatives by offering product training, answering underwriting questions, helping to determine underwriting eligibility and assisting with the mechanics of premium determination. We also continue a target markets emphasis to analyze opportunities and to develop new products and services, new coverage options and improvements to existing insurance products.

Understanding evolving market conditions is a critical function for our success, accomplished through both informal commentary and formal reviews. Informally, our field marketing representatives, underwriters and product development associates routinely receive market intelligence from a variety of channels, including from the agencies with which they work. This market information helps identify the top competitors and our market strengths and weaknesses. The information obtained encompasses pricing, breadth of coverage and use of underwriting guidelines.

Our historical emphasis on small to midsized businesses is reflected in the mix of our commercial lines premium volume by policy size. Approximately 75% of our commercial in-force policies have annual premiums of \$10,000 or less, accounting in total for approximately 20% of our 2020 commercial lines premium volume. The remainder of policies have annual premiums greater than \$10,000, including policies with annual premiums greater than \$100,000 that account for approximately 30% of our 2020 commercial lines premium volume. Our average commercial lines policy size is approximately \$13,000 in annual premiums.

Our commercial lines packages typically are offered on a three-year policy term for most insurance coverages – a key competitive advantage. In our experience, multi-year packages appeal to the quality-conscious insurance buyers who we believe are typical clients of our independent agents. Customized insurance programs on a three-year term complement the long-term relationships these policyholders typically have with their agents and with our company. By reducing annual administrative efforts, multi-year policies lower expenses for our company and for our agents. The commitment we make to policyholders encourages long-term relationships and reduces their need to annually re-evaluate their insurance carrier or agency. We believe that the advantages of three-year policies in

terms of improved policyholder convenience, increased account retention and reduced administrative costs outweigh the potential disadvantage of these policies, even in periods of rising rates.

Although we offer three-year policy terms, premiums for some coverages within those policies are adjustable at the anniversary for the next annual period, and policies may be canceled at any time at the discretion of the policyholder. Contract terms often provide that rates for property, general liability, inland marine and crime coverages, as well as policy terms and conditions, are fixed for the term of the policy. However, the exposure we insure is reviewed annually, near the policy anniversary date, and the amount of premiums may be adjusted based on changes to that exposure.

The general liability exposure basis may be audited annually. Commercial auto, workers' compensation, professional liability and most umbrella liability coverages within multi-year packages are rated at each of the policy's annual anniversaries for the next one-year period. The annual pricing could incorporate rate changes approved by state insurance regulatory authorities between the date the policy was written and its annual anniversary date, as well as changes in risk exposures and premium credits or debits relating to loss experience and other underwriting judgment factors. We estimate that approximately 75% of 2020 commercial premiums were subject to annual rating or were written on a one-year policy term. That 75% includes approximately one-third of policies offered on a three-year policy term that expire during any given year.

We believe our commercial lines insurance segment premiums reflect a higher concentration, relative to industry commercial lines premiums, in contractor-related businesses. Since economic activity related to construction, which can heavily influence insured exposures of contractors, may experience cycles that vary significantly with the economy as a whole, our commercial lines premium trends could vary from commercial lines premium trends for the property casualty insurance industry. In 2020, we estimated that 39% of our general liability premiums, and 36% of our workers' compensation premiums, came from the construction industry based on North American Industry Classification System (NAICS) codes.

Personal Lines Insurance Segment

The personal lines insurance segment contributed net earned premiums of \$1.463 billion to 2020 consolidated total revenues, or 19.4% of the total, and reported profit before income taxes of \$47 million. Personal lines net earned premiums rose 4% in 2020 and 5% in 2019.

We prefer to write personal lines coverage in accounts that include both auto and homeowner coverages as well as coverages that are part of our other personal business line. At the end of 2020, for example, approximately 83% of our homeowner policies were accompanied by a personal auto policy in the same account. As a result of our account-based approach, we believe that our personal lines business is best measured and evaluated on a segment basis. However, we provide line of business data to summarize growth and profitability trends separately for three business lines:

Personal auto – Protects against liability to others for both bodily injury and property damage, medical payments to insureds and occupants of their vehicle, physical damage to an insured's own vehicle from collision and various other perils, and damages caused by uninsured motorists. In addition, many states require policies to provide first-party personal injury protection, frequently referred to as no-fault coverage.

Homeowner – Protects against losses to dwellings and contents from a wide variety of perils, as well as liability arising out of personal activities both on and off the covered premises. We also offer coverage for condominium unit owners and renters.

Other personal lines – This includes the other types of insurance products we offer to individuals, including dwelling fire, inland marine, personal umbrella liability and watercraft coverages.

At year-end 2020, we marketed personal lines insurance products through 1,854, or approximately 72%, of our 2,578 agency reporting locations. The 1,854 personal lines agency locations were in 43 of the 45 states in which we offered property casualty insurance. Those agencies produced approximately 1.0 million personal lines policies in force for us, representing approximately 385,000 policyholders.

We continue to evaluate opportunities to expand our marketing of personal lines to other states. Primary factors considered in the evaluation of a potential new state include market opportunity or potential, weather-related catastrophe history and the legal climate.

Expansion of our personal lines insurance segment includes marketing through independent agencies to profitably grow our premiums for products and services offered to their high net worth personal lines clients. In 2020, our appointed agencies produced for us approximately \$520 million of net written premiums from policyholders with insured home values of \$1 million or more, up 27% from 2019. We estimate those policyholders represent approximately 15% of our total personal lines policyholders.

In 2020, we expanded our excess and surplus lines business into personal lines by offering an excess and surplus lines homeowner policy in California through our wholly owned insurance broker, CSU Producer Resources Inc. We see this expansion as a natural evolution of our agency-focused strategy, as some agents need a solution to serve clients who have attractive high net worth personal lines accounts that are not eligible for admitted insurance market coverage. In 2020, our appointed agencies produced \$8 million of net written premiums through excess and surplus lines homeowner policies.

In 2020, our 10 highest volume personal lines states generated 65.2% of our earned premiums compared with 66.7% in 2019. In 2015, our 10 highest volume personal lines states generated 78.5% of our earned premiums. The reduction in that percentage indicates progress over time toward our long-term objective of geographic diversification through new states for our personal lines operation. The aggregate number of reporting agency locations in our 10 highest volume states increased to 957 in 2020 from 933 in 2019.

Our 10 largest states based on personal lines premium volume are shown in the table below.

(Dollars in millions)

	Earned premiums	% of total earned	Agency locations	Average premium per location
Year ended December 31, 2020				
Ohio	\$ 311	21.2 %	224	\$ 1.4
Georgia	121	8.2	90	1.3
New York	80	5.5	95	0.8
North Carolina	78	5.3	89	0.9
Illinois	73	5.0	114	0.6
Indiana	67	4.6	90	0.7
Alabama	65	4.5	48	1.4
Michigan	57	3.9	98	0.6
California	52	3.6	57	0.9
Kentucky	50	3.4	52	1.0

New and renewal personal lines business reflects our risk-specific underwriting philosophy. Each agency selects personal lines business primarily from within the geographic territory that it serves, based in part on agency staff's knowledge of the risks in those communities or familiarity with the policyholder. We have personal lines field marketing representatives who have underwriting authority and visit agencies on a regular basis. They focus primarily on key states targeted for growth, reinforcing the advantages of our personal lines products and offering training in the use of our policy processing system. Personal lines activities are further supported by headquarters associates assigned to individual agencies.

Excess and Surplus Lines Insurance Segment

The excess and surplus lines segment contributed net earned premiums of \$325 million to 2020 consolidated total revenues, or 4.3% of the total, and reported profit before income taxes of \$34 million. Excess and surplus lines net earned premium increased 17% in 2020 and 19% in 2019.

Our excess and surplus lines policies typically cover business risks with unique characteristics, such as the nature of the business or its claim history, that are difficult to profitably insure in the standard commercial lines market. Excess and surplus lines insurers have more flexibility in coverage terms and rates compared with standard lines companies, generally resulting in policies with higher rates and terms and conditions customized for specific risks, including restricted coverage where appropriate. We target small to midsized risks, and policyholders in many cases also have standard market insurance with one of our other subsidiaries. Our average excess and surplus lines policy size is approximately \$7,000 in annual premiums, and the majority have coverage limits of \$1 million or less. All of our excess and surplus lines policies are written for a maximum term of one year. Approximately 90% of our 2020 earned premiums for the excess and surplus lines insurance segment provided commercial casualty coverages and about 10% provided commercial property coverages. Those coverages are described below.

Commercial casualty – Covers businesses for third-party liability from accidents occurring on their premises or arising out of their operations, including injuries sustained from products. Other coverages available include miscellaneous errors and omissions, professional liability and excess liability. Typical businesses covered include contractors, manufacturers, real estate owners and managers, retail, consultants, and bars or taverns. Policies covering liability at special events are also available.

Commercial property – Insures buildings, inventory, equipment and business income from loss or damage due to causes such as fire, wind, hail, water, theft and vandalism. Examples of property we commonly insure with excess and surplus lines policies include temporarily vacant buildings, habitational, restaurants and relatively higher-hazard manufacturing classes.

At the end of 2020, we marketed excess and surplus lines insurance products in each of the 41 states in which we offer standard market commercial lines insurance. Offering excess and surplus lines helps agencies representing The Cincinnati Insurance Companies meet the insurance needs of their clients when coverage is unavailable in the standard market. By providing outstanding service, we can help agencies grow and prosper while also profitably growing our property casualty business.

In 2020, our 10 highest volume excess and surplus lines states generated 55.0% of our earned premiums, compared with 56.8% in 2019.

Our 10 largest states based on excess and surplus lines premium volume are shown in the table below.

(Dollars in millions)

	Earned premiums	% of total earned
Year ended December 31, 2020		
Ohio	\$ 25	7.6 %
Illinois	24	7.4
Texas	21	6.4
Georgia	18	5.4
North Carolina	17	5.4
Pennsylvania	17	5.3
New York	15	4.6
Indiana	14	4.4
Florida	14	4.3
Alabama	14	4.2

Agencies representing The Cincinnati Insurance Companies produce approximately \$5 billion in annual premiums for all carriers writing excess and surplus lines policies for their clients. We estimate that approximately half of that premium volume matches the targeted business types and coverages we offer through our excess and surplus lines insurance segment. We structured the operations of this segment to meet the needs of these agencies and to market exclusively through them.

Agencies have access to Cincinnati Specialty Underwriters' product line through CSU Producer Resources, the wholly owned insurance brokerage subsidiary of Cincinnati Financial Corporation. CSU Producer Resources has binding authority on all classes of business written through Cincinnati Specialty Underwriters and maintains appropriate agent and surplus lines licenses.

We seek to earn a share of each agency's best excess and surplus lines accounts by offering several unique benefits. Agency producers have direct access through CSU Producer Resources to a group of our underwriters who focus exclusively on excess and surplus lines business. Those underwriters can tap into broader services we offer to provide policyholders additional value and help producers build the relationship through experienced and responsive loss control services and claims handling. CSU Producer Resources gives extra support to our independent agency producers by remitting surplus lines taxes and stamping fees and retaining admitted market diligent search affidavits, where required. Agencies marketing through CSU Producer Resources instead of a competing brokerage generally receive a higher commission because use of our internal brokerage subsidiary eliminates some of the intermediary costs. This business is factored in their profit-sharing agreement with The Cincinnati Insurance Companies. We also offer prompt service, generally issuing approximately 95% of policies within 24 hours of a request to bind a policy.

Life Insurance Segment

The life insurance segment contributed \$289 million of net earned premiums, representing 3.8% of 2020 consolidated total revenues, and reported a profit before income taxes of \$11 million. Life insurance net earned premiums grew 7% in 2020 and 8% in 2019.

The Cincinnati Life Insurance Company supports our agency-centered business model by deepening the relationships we have with agents while also diversifying revenue and profitability for both the agency and our company. We primarily focus on life products that feature a steady stream of premium payments and that have the potential for generating revenue growth through increasing demand.

Life Insurance Business Lines

Four lines of business that account for approximately 99% of the life insurance segment's revenues are:

Term life insurance – Policies under which a death benefit is payable only if the insured dies during a specific period of time. Policy options include a return of premium provision, a benefit equal to the sum of all paid base premiums that is payable if the insured person survives to the end of the term. The policies are fully underwritten using traditional and accelerated methods.

Universal life insurance – Long-duration life insurance policies that are fully underwritten. Contract premiums are neither fixed nor guaranteed; however, the contract does specify a minimum interest crediting rate and a maximum cost of insurance charge and expense charge. The cash values, available as loans collateralized by the cash surrender value, are not guaranteed and depend on the amount and timing of actual premium payments and the amount of actual contract assessments.

Worksite products – Term life insurance, return of premium term life insurance and whole life insurance offered to employees through their employer. Premiums are collected by the employer using payroll deduction. Policies are issued using a simplified underwriting approach and on a guaranteed issue basis. Worksite insurance products provide our property casualty agency force with excellent cross-serving opportunities for both commercial and personal accounts.

Whole life insurance – Policies that provide life insurance for the entire lifetime of the insured. The death benefit is guaranteed never to decrease and premiums are guaranteed never to increase. While premiums are fixed, they must be paid as scheduled. These policies provide guaranteed cash values that are available as loans collateralized by the cash surrender value. The policies are fully underwritten.

In addition, Cincinnati Life markets:

Deferred annuities that provide regular income payments that commence after the end of a specified period or when the annuitant attains a specified age. During the deferral period, any payments made under the contract accumulate at the crediting rate declared by the company but not less than a contract-specified guaranteed minimum interest rate. A deferred annuity may be surrendered during the deferral period for a cash value equal to the accumulated payments plus interest less the surrender charge, if any.

Immediate annuities that provide some combination of regular income and lump-sum payments in exchange for a single premium.

Life Insurance Distribution

Cincinnati Life is licensed in 49 states and the District of Columbia. At year-end 2020, approximately 78% of our 1,848 property casualty agency relationships offered Cincinnati Life products to their clients. We also develop life business from approximately 389 other independent life insurance agencies. We are careful to solicit business from these other agencies in a manner that does not conflict with or compete with the marketing and sales efforts of our property casualty agencies.

When marketing through our property casualty agencies, we have specific competitive advantages:

Because our property casualty operations are held in high regard, property casualty agency management is predisposed to consider selling our life products.

Marketing efforts for both our property casualty and life insurance businesses are directed by our field marketing department, coordinated with our life field marketing representatives, which assures consistency of communication and operations. Life field marketing representatives are available to meet face-to-face with agency personnel and their clients as well. Our life headquarters underwriters and other associates are available to the agents and field team to assist in the placement of business.

We continue to emphasize the cross-serving opportunities of our life insurance, including term and worksite products, for the property casualty agency's personal and commercial accounts. In both the property casualty and independent life agency distribution systems, we enjoy the advantages of offering competitive, up-to-date products and providing personal attention in combination with financial strength and stability.

Term life insurance is our largest life insurance product line. We continue to develop and offer term products with features our agents indicate are important, such as a return of premium benefit and an option for an accelerated underwriting product for our personal lines agents.

We also offer products addressing the needs of businesses with key person and buy-sell coverages. We offer quality, personal life insurance coverage to personal and commercial clients of our agencies.

Because of our strong capital position, we can offer a competitive product portfolio, including guaranteed products, giving our agents a marketing edge. Our life insurance company maintains strong insurer financial strength ratings: A.M. Best, A+ (Superior); Fitch, A+ (Strong); and S&P, A+ (Strong). Our life insurance company has chosen not to establish a Moody's rating.

In 2020, our five highest volume states for life insurance premiums, based on information contained in statements filed with state insurance departments, are shown in the table below.

(Dollars in millions)	Premiums	% of total
Year ended December 31, 2020		
Ohio	\$ 56	16.4 %
Pennsylvania	24	7.0
Illinois	21	6.0
Indiana	20	5.8
Georgia	18	5.1

Investments Segment

Revenues of the investments segment are primarily from net investment income and from net investment gains and losses from investment portfolios managed for the holding company and each of the operating subsidiaries.

Our investment department operates under risk guidelines set forth in our investment policy along with oversight of the investment committee of our board of directors. These guidelines set parameters for risk tolerances governing, among other items, the allocation of the portfolio as well as security and sector concentrations. These parameters are part of an integrated corporate risk management program. When allocating cash to various asset classes, we consider market-based factors such as risk adjusted after-tax yields as well as internal measures based in part on insurance department regulations and rating agency guidance.

The fair value of our investment portfolio was \$21.194 billion and \$19.450 billion at year-end 2020 and 2019, respectively, as shown in the table below. The overall portfolio increased, reflecting an unrealized gain position and fair value increase. The fair value increased largely due to equity markets that rose during the second half of 2020 after declining for much of the first half of the year. The unrealized gain position in our fixed-maturity investments increased in 2020, primarily due to a decrease in interest rates such as U.S. Treasury yields.

	At December 31, 2020				At December 31, 2019			
	Cost or amortized cost	Percent of total	Fair value	Percent of total	Cost or amortized cost	Percent of total	Fair value	Percent of total
Taxable fixed maturities	\$ 7,363	48.3 %	\$ 8,053	38.0 %	\$ 7,250	49.4 %	\$ 7,617	39.1 %
Tax-exempt fixed maturities	3,949	25.9	4,285	20.2	3,858	26.3	4,081	21.0
Common equities	3,640	23.9	8,541	40.3	3,371	22.9	7,518	38.7
Nonredeemable preferred equities	287	1.9	315	1.5	210	1.4	234	1.2
Total	\$ 15,239	100.0 %	\$ 21,194	100.0 %	\$ 14,689	100.0 %	\$ 19,450	100.0 %

The cash we generate from insurance operations historically has been invested in two broad categories of investments:

Fixed-maturity investments – Includes taxable and tax-exempt bonds and redeemable preferred stocks. During 2020, the combined effect of net purchases and a net increase in unrealized gains offset sales and calls of fixed-maturity securities in our portfolio. During 2019, purchases and a net increase in unrealized gains offset sales and calls.

Equity investments – Includes common and nonredeemable preferred stocks. During 2020, the combined effect of purchases and a net increase in fair value offset sales of equity securities in our portfolio. During 2019, purchases and a net increase in fair value offset sales.

In addition to securities held in our investment portfolio, other invested assets included \$162 million held on deposit at Lloyd's, \$128 million of private equity investments, \$33 million of life policy loans and \$25 million of real estate through direct property ownership and development projects in the United States at year-end 2020.

Our investment portfolio is further described below. Additional information about the composition and valuation of investments is included in Item 8, Note 2, Investments, and Note 3, Fair Value Measurements, of the Consolidated Financial Statements. A detailed listing of our portfolio is updated on our website, cinfin.com/investors, each quarter when we report our quarterly financial results.

Fixed-Maturity Securities Investments

By maintaining a well-diversified fixed-maturity portfolio, we attempt to manage overall interest rate, reinvestment, credit and liquidity risk. We pursue a buy-and-hold strategy and do not attempt to make large-scale changes to the portfolio in anticipation of rate movements. By investing new money on a regular basis and analyzing risk-adjusted after-tax yields, we work to achieve a general laddering effect to our portfolio that may mitigate some of the effects of adverse interest rate movements.

At December 31, 2020, our investment-grade and noninvestment-grade fixed-maturity securities represented 81.8% and 4.0% of the portfolio, respectively. The remaining 14.2% represented fixed-maturity securities that were not rated by Moody's or S&P. Our nonrated securities include smaller municipal issues and private placement corporate securities. Many of these, although not rated by Moody's or S&P, are rated by the Securities' Valuation Office of the National Association of Insurance Commissioners (NAIC). Also included in this category are smaller public corporate securities, many of which carry a rating by an agency other than Moody's or S&P, such as Fitch or Kroll.

Other selected attributes of the fixed-maturity portfolio are shown in the table below. Additional maturity periods and other information for our fixed-maturity portfolio are shown in Item 8, Note 2 of the Consolidated Financial Statements.

	At December 31,	
	2020	2019
Weighted average yield-to-amortized cost	4.12 %	4.10 %
Weighted average maturity	7.5 yrs	7.7 yrs
Effective duration	4.5 yrs	4.8 yrs

The fair values of our taxable fixed-maturity securities portfolio at the end of the last two years were:

	At December 31,	
(Dollars in millions)	2020	2019
Investment-grade corporate	\$ 6,416	\$ 6,137
States, municipalities and political subdivisions	712	647
Noninvestment-grade corporate	479	264
Commercial mortgage-backed	285	301
United States government	120	104
Foreign government	29	28
Government-sponsored enterprises	12	136
Total	\$ 8,053	\$ 7,617

While our strategy typically is to buy and hold fixed-maturity investments to maturity, we monitor credit profiles and fair value movements when determining holding periods for individual securities. With the exception of U.S. agency issues, no individual issuer's securities accounted for more than 1.1% of the taxable fixed-maturity portfolio at year-end 2020. Investment-grade corporate bonds had an average rating of Baa2 by Moody's or BBB by S&P at year-end 2020. Our taxable fixed-maturity portfolio included \$285 million of commercial mortgage-backed securities with an average rating of Aa1/AA at year-end 2020.

Relative to a broad bond market index such as the Barclay's Aggregate, we are most heavily exposed to the investment grade corporate bond asset class. Within that asset class, we have a weighting of 46.2% for the financial sector, higher than the 31.0% weighting for the financial sectors of the Bank of America Merrill Lynch U.S. Corporate Index. Relative to the Barclay's Aggregate, we are overweight in the commercial mortgage-backed securities asset class while having no exposure to the much larger residential mortgage-backed market.

At December 31, 2020, we had \$4.285 billion of tax-exempt fixed-maturity securities with an average rating of Aa2/AA by Moody's and S&P. The portfolio is well diversified among approximately 1,700 municipal bond issuers. No single municipal issuer accounted for more than 0.6% of the tax-exempt fixed-maturity portfolio at year-end 2020.

Equity Securities Investments

After covering both our intermediate and long-range insurance obligations with fixed-maturity investments, we historically have used some available cash flow to invest in equity securities. Our equity securities portfolio includes common stocks and nonredeemable preferred stocks. Investment in equity securities has played an important role in achieving our portfolio objectives and has contributed to both growth of investment income and portfolio appreciation. We remain committed to our long-term equity focus, which we believe is key to our company's long-term growth and stability. We believe our strategy of primarily investing in a diversified selection of larger-capitalization, high-quality, dividend-increasing companies generally results in reduced volatility relative to the broader equity markets.

For federal income tax purposes, taxes on gains from appreciated investments generally are not due until securities are sold. We believe that the appreciated value of equity securities, compared with the cost of securities that is generally used as a tax basis, is a useful measure to help evaluate how fair value can change over time. On this basis, the net unrealized investment gains at year-end 2020 consisted of a net gain position in our equity portfolio of \$4.929 billion. Events or factors such as economic growth or recession can affect the fair value of our equity securities.

At year-end 2020, Apple Inc. (Nasdaq:AAPL) was our largest single common stock investment, comprising 7.5% of our publicly traded common stock portfolio and 3.0% of the entire investment portfolio. The parent company held 43.2% of our common stock holdings (measured by fair value). The distribution of the portfolio among industry sectors is shown in the table below.

Common Stock Portfolio Industry Sector Distribution

Sector:	Percent of common stock portfolio			
	At December 31, 2020		At December 31, 2019	
	Cincinnati Financial	S&P 500 Industry Weightings	Cincinnati Financial	S&P 500 Industry Weightings
Information technology	28.3 %	27.6 %	23.7 %	23.2 %
Financial	14.2	10.4	15.7	13.0
Healthcare	13.3	13.5	12.4	14.2
Industrials	12.3	8.4	12.6	9.1
Consumer discretionary	8.9	12.7	9.7	9.7
Consumer staples	6.7	6.5	6.2	7.2
Materials	5.1	2.6	5.0	2.7
Energy	3.8	2.3	6.3	4.3
Real estate	2.7	2.4	2.5	2.9
Utilities	2.6	2.8	2.5	3.3
Telecomm services	2.1	10.8	3.4	10.4
Total	100.0 %	100.0 %	100.0 %	100.0 %

We evaluate nonredeemable preferred stocks in a manner similar to our evaluation of fixed-maturity investments, seeking attractive relative yields. We generally focus on investment-grade nonredeemable preferred stocks issued by companies with strong histories of paying common dividends, providing us with another layer of protection. Consideration is also given to nonredeemable preferred stocks that offer a dividend received deduction for income tax purposes. During 2020, we purchased \$79 million of nonredeemable preferred stocks and none in this portfolio were converted to common stock. During 2019, we purchased \$40 million of nonredeemable preferred stocks and none in this portfolio were converted to common stock.

Other

What we report as Other includes the noninvestment operations of the parent company and its noninsurer subsidiary, CFC Investment Company. At year-end 2020, this subsidiary had \$95 million in receivables related to its commercial leasing and financing services, compared with \$77 million in receivables at year-end 2019.

We also report as Other the results of Cincinnati Re, which has contracts, also referred to as treaties, with other insurance or reinsurance companies to assume a portion of their insured risk in exchange for a portion of premiums from insurance policies covering those risks. The treaties and their exposure to losses are diverse in nature, including various lines of business and geographies for the reinsured risks. Some of our treaties reflect a type of contract commonly referred to as participating or proportional, typically sharing premiums and losses between the reinsured entity and us, as reinsurer, on a pro rata basis. Some are a contract type commonly referred to as excess of loss, where we indemnify the reinsured entity only for losses exceeding a predetermined amount.

Net written premiums for Cincinnati Re totaled \$302 million in 2020, compared with \$228 million in 2019. Approximately 33% of 2020 net written premiums was for property exposures that include risk of loss from natural catastrophes and approximately 51% was for casualty exposures from various liability risks. The remainder of approximately 16% was a combination of what we consider to be more specialized coverages that include, but are not limited to, transactional liability and credit risk transfer related to residential mortgages.

Also reported as Other are the results of Cincinnati Global, our London-based global specialty underwriter for Lloyd's Syndicate 318, which we acquired on February 28, 2019. We expect it to contribute to future earnings and book value growth. We also believe it should provide opportunities to support business produced by our independent agencies in new geographies and lines of business.

Net written premiums for Cincinnati Global totaled \$177 million in 2020, and were \$140 million for the 10 months following its acquisition in 2019. Most of the 2020 premiums were for U.S. and international property exposures that include risk of loss from natural catastrophes, including approximately 68% classified as direct and facultative and 28% as binder, where binding authority has been granted to various coverholders, mostly in the U.S., that we believe have the ability to successfully underwrite and manage risks. The remainder, approximately 4%, was for other classes of business that include trade credit, terrorism and one additional class we began writing in 2020. The new class is specie coverage for high-value portable property. Cincinnati Global will add contingency insurance in 2021, which includes coverage for film and entertainment risks or event cancellation.

Regulation

The business of insurance in the United States (U.S.) is primarily regulated by state law. All of our U.S. insurance company subsidiaries are domiciled in the state of Ohio except The Cincinnati Specialty Underwriters Insurance Company, which is domiciled in the state of Delaware. Each domestic insurance subsidiary is primarily governed by the insurance laws and regulations in its respective state of domicile. We also are subject to regulatory authorities of all states in which we write insurance. The state laws and regulations that have the most significant effect on our insurance operations and financial reporting are discussed below.

Insurance Holding Company Regulation – We are regulated as an insurance holding company system in the respective states of domicile of our lead standard market property casualty company subsidiary and its surplus lines insurance subsidiary. These regulations require that we annually furnish financial and other information about the governance and operations of the individual companies within the holding company system. Information about the risks posed by any noninsurance company subsidiaries must also be disclosed. All transactions within a holding company system affecting insurers must be fair and equitable. Notice to the state insurance commissioner is required prior to the consummation of transactions affecting the ownership or control of an insurer and prior to certain material transactions between an insurer and any person or entity in its holding company group. In addition, some of those transactions cannot be consummated without the commissioner's prior approval.

Subsidiary Dividends – The Cincinnati Insurance Company is fully owned by Cincinnati Financial Corporation. The dividend-paying capacity of The Cincinnati Insurance Company and its fully owned subsidiaries is regulated by the laws of the applicable state of domicile. Under these laws, our domestic insurance subsidiaries must provide a 10-day advance informational notice to the insurance commissioner for the domiciliary state prior to payment of any dividend or distribution to its shareholders. Generally, the most our domestic insurance subsidiary can pay without prior regulatory approval is the greater of 10% of statutory capital and surplus or 100% of statutory net income for the prior calendar year.

The domestic insurance company subsidiaries must give 30 days of notice to, and obtain prior approval from, the state insurance commissioner before the payment of an extraordinary dividend as defined by the state's insurance code. You can find information about the dividends paid by our insurance subsidiary during 2020 in Item 8, Note 9 of the Consolidated Financial Statements.

Insurance Operations – All of our domestic insurance subsidiaries are subject to licensing and supervision by departments of insurance in the states in which they do business. The nature and extent of such regulations vary, but generally are rooted in statutes that delegate regulatory, supervisory and administrative powers to state insurance departments. Such regulations, supervision and administration of the domestic insurance subsidiaries include: the standards of solvency that must be met and maintained; the licensing of insurers and their agents and brokers; the nature and limitations on investments; deposits of securities for the benefit of policyholders; regulation of standard market policy forms and premium rates; policy cancellations and nonrenewals; test audit programs; 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; requirements regarding reserves for unearned premiums, losses and other matters; the nature of and limitations on dividends to policyholders and shareholders; the nature and extent of required participation in insurance guaranty funds; the involuntary assumption of hard-to-place or high-risk insurance business, primarily workers' compensation insurance; and the collection, remittance and reporting of certain taxes and fees. Our primary insurance regulators in the U.S. have adopted the Model Audit Rule for annual statutory financial reporting. This regulation closely mirrors the Sarbanes-Oxley Act on matters such as auditor independence, corporate governance and internal controls over financial reporting. The regulation permits the audit committee of Cincinnati Financial Corporation's board of directors to also serve as the audit committee of each of our insurance subsidiaries for purposes of this regulation.

Insurance Guaranty Associations – For certain obligations of insolvent insurance companies to policyholders and claimants, states assess each member insurer in an amount relative to the insurer's proportionate share of business written by all member insurers in the state. While the amount of such assessments has not been material in recent years, we cannot predict the amount and timing of any future assessments or refunds on our insurance subsidiaries under these laws.

Shared Market and Joint Underwriting Plans – Assigned risk plans, reinsurance facilities and joint underwriting associations are mechanisms that generally provide applicants with various basic insurance coverages when they are not available in voluntary markets. States can require participation based upon the amount of an insurance company's voluntary market share, and underwriting results related to these pools could be adverse to our company.

Statutory Accounting – For public reporting, domestic insurance companies prepare financial statements in accordance with GAAP. However, certain data also must be calculated according to statutory accounting rules as defined in the NAIC's Accounting Practices and Procedures Manual. While not a substitute for any GAAP measure of performance, statutory data frequently is used by industry analysts and other recognized reporting sources to facilitate comparisons of the performance of insurance companies.

Insurance Reserves – State insurance laws require that property casualty and life insurers annually analyze the adequacy of reserves. Our appointed actuaries must submit an opinion that reserves are adequate for policy claims-paying obligations and related expenses.

Investment Regulation – Insurance company investments must comply with laws and regulations pertaining to the type, quality and concentration of investments. Such 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 other qualifications.

Risk-Based Capital Requirements – The NAIC's risk-based capital (RBC) requirements for property casualty and life insurers serve as an early warning tool for the NAIC and state regulators to identify companies that may be undercapitalized and may merit further regulatory action. The NAIC has a standard formula for annually assessing RBC. The formula for calculating RBC for property casualty companies takes into account asset and credit risks but places more emphasis on underwriting factors for reserving and pricing. The formula for calculating RBC for life insurance companies takes into account factors relating to insurance, business, asset and interest-rate risks.

Although the federal government and its regulatory agencies generally do not directly regulate the business of insurance, federal legislation and administrative rules adopted can affect our business. Privacy laws, such as the Gramm-Leach-Bliley Act, the Fair Credit Reporting Act and the Health Insurance Portability and Accounting Act (HIPAA) are the federal laws that most affect our day-to-day operations. These apply to us because we gather and use personal nonpublic information to underwrite insurance and process claims. We also are subject to other federal laws, such as the Terrorism Risk Insurance Act (TRIA), anti-money laundering statute (AML), the Nonadmitted and Reinsurance Reform Act (NRRA), the U.S. Foreign Corrupt Practices Act (FCPA), and the rules and regulations of the Office of Foreign Assets Control (OFAC).

Title V of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank) created the Federal Insurance Office to monitor the insurance industry and gather information to identify issues or gaps in the regulation of insurers that could contribute to a systemic crisis in the insurance industry that affects the United States' financial system and to recommend to the Financial Stability Oversight Council that it designate an insurer as a systemically significant entity requiring additional supervision by the Federal Reserve Board. We do not expect Dodd-Frank to result in federal oversight of our operations as a systemically significant entity.

We do not expect to have any material effects on our expenditures, earnings or competitive position as a result of compliance with any federal, state or local provisions enacted or adopted relating to the protection of the environment. We currently do not have any material estimated capital expenditures for environmental control facilities.

We operate in limited foreign jurisdictions. Our foreign insurance subsidiary Cincinnati Global Underwriting Ltd., based in the United Kingdom (U.K.), holds a group of companies led by our managing agency, Cincinnati Global Underwriting Agency Ltd. (CGUAL), of Lloyd's Syndicate 318, which is regulated by The Prudential Regulation Authority (PRA) and The Financial Conduct Authority (FCA). The PRA's primary objective with respect to insurers is to promote the safety and soundness of insurers for the protection of 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 U.K. financial system; and (iii) to promote effective competition in the interests of consumers in the financial services markets. The PRA/FCA's Senior Managers and Certification Regime provides regulatory frameworks for standards of fitness and propriety, conduct and accountability for individuals in positions of responsibility at insurers. The PRA and FCA have also delegated certain additional regulatory responsibilities to the Council of Lloyd's. By virtue of Lloyd's international licenses, we can write business in various countries throughout the world. In each such country, we are subject to the laws and insurance regulations of that jurisdiction.

Our operations in the U.K. are further subject to regulation by the European Union (EU). Generally, EU requirements are adopted by the EU and then implemented by enabling legislation in the member countries. Significant areas of oversight and influence from the EU include capital, solvency and risk management requirements (Solvency II), competition law and antitrust regulation, intermediary and distribution regulation, gender discrimination and data protection and privacy (General Data Protection Regulation). The applicability of EU regulation to our U.K. business is likely to change in ways yet to be determined as a result of the U.K.'s exit from the EU.

Enterprise Risk Management

We manage enterprise risk through formal risk management programs overseen by an executive officer of the company. Our ERM framework includes an enterprise risk management committee, which is responsible for overseeing risk activities and is comprised of senior executive-level risk owners from across the enterprise. The risk committee's activities are supported by a team of representatives from business areas that focus on identifying, evaluating and developing risk plans for emerging risks. A comprehensive report is provided quarterly to our chairman, president and chief executive officer and also to our board of directors and our senior executive team, as appropriate, on the status of risk metrics relative to identified tolerances and limits, risk assessments and risk plans. The use of operational audits, strategic plans and departmental business plans, as well as our culture of open communications and fundamental respect for our Code of Conduct, continue to help us manage risks on an ongoing basis.

We understand that a cybersecurity incident is just one example of an event that could affect our future performance. We work to keep our systems and data secure while continuing to increase our understanding of cybersecurity risk through risk management efforts and testing by third-party experts of our cybersecurity program structure and capabilities. Those efforts include blocking attempted cyber intrusions, defending against denial of service attacks, performing frequent vulnerability assessments and maintaining procedures to ensure timely notification of critical cybersecurity incidents and related disclosure controls. Cybersecurity matters are an important part of reporting to our executive management team, risk committee and the board of directors. Effects of cyberattacks can happen to any corporation and they can be significant, including additional costs for remediation, litigation and reputational damage. During 2020, we experienced no cybersecurity incidents having a material effect on our operations or financial performance.

Our risk management programs include a formalized risk appetite element and a risk identification and quantification process. The overall enterprise objective is to appropriately balance risk and reward to achieve an appropriate return on risk capital. Our key risks are discussed in Item 1A, Risk Factors, including risks related to natural catastrophes, investments and operations.

We continue to study emerging risks, including climate change risk and its potential financial effects on our results of operations and on those we insure. These effects include deterioration in the credit quality of our municipal or corporate bond portfolios and increased losses without sufficient corresponding increases in premiums. As with any risk, we seek to identify the extent of the risk exposure and possible actions to mitigate potential negative effects of risk at an enterprise level.

ITEM 1A. Risk Factors

Our business involves various risks and uncertainties that may affect achievement of our business objectives. Many of the risks could have ramifications across our organization. For example, while risks related to setting insurance rates and establishing and adjusting loss reserves are insurance activities, actual results differing from our assumptions, judgments or estimates in these areas could have an impact on our investment activities, growth and overall results.

The following discussion should be viewed as a starting point for understanding the significant risks we face. It is not a definitive summary of their potential impacts or of our strategies to manage and control the risks. Please see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, for a discussion of those strategies.

If any risks or uncertainties discussed here develop into actual events, they could have a material adverse effect on our business, financial condition, results of operations or cash flows. In that case, the market price of our common stock could decline materially. The failure of our risk management strategies could have a material adverse impact on our consolidated financial condition, results of operations or cash flows.

Readers should carefully consider this information together with the other information we have provided in this report and in other reports and materials we file periodically with the Securities and Exchange Commission as well as news releases and other information we disseminate publicly.

Risks related to insurance operations

We rely primarily on independent insurance agents to distribute our products.

We market our main products, insurance policies for businesses and individuals, through independent, nonexclusive insurance agents. These agents are not obligated to promote our products and can and do sell our competitors' products. We must offer insurance products that meet the needs of these agents and their clients. We need to maintain good relationships with the agents who market our products. If we do not, these agents may market our competitors' products instead of ours, which may lead to us having a less desirable mix of business and could affect our results of operations.

In addition to our marketing of insurance policies for businesses and individuals, Cincinnati Re reinsures policies written by other insurance companies. This business is marketed through reinsurance intermediaries and is generally not offered by the typical independent agents who market our insurance policies.

Certain events or conditions could diminish our agents' desire to produce business for us and the competitive advantage that our independent agents enjoy, including:

- Downgrade of the financial strength ratings of our insurance subsidiaries. We believe our strong insurer financial strength ratings, in particular, the A+ (Superior) ratings from A.M. Best for our standard market property casualty insurance group and each subsidiary in that group, are an important competitive advantage. See Item 1, Our Business and Our Strategy, Financial Strength, for additional discussion of our financial strength ratings.

- Concerns that doing business with us is difficult or not profitable, perceptions that our level of service is no longer a distinguishing characteristic in the marketplace, perceptions that our products do not meet the needs of our agents' clients or perceptions that our business practices are not compatible with agents' business models.

- Mergers and acquisitions could result in a concentration of a significant amount of premium in one agency.

- Delays in the development, implementation, performance and benefits of technology systems and enhancements or independent agent perceptions that our technology solutions do not match their needs.

A reduction in the number of independent agencies marketing our products, the failure of agencies to successfully market our products or pay amounts due to us, changes in the strategy or operations of agencies or the choice of agencies to reduce their writings of our products could affect our results of operations if we were unable to replace them with agencies that produce adequate and profitable premiums.

Further, policyholders may choose a competitor's product rather than our own because of real or perceived differences in price, terms and conditions, coverage or service. If the quality of the independent agencies with which we do business were to decline, that also might cause policyholders to purchase their insurance through different agencies or channels. Consumers, especially in the personal insurance industry segment, may increasingly choose to purchase insurance from distribution channels other than independent insurance agents, such as direct marketers. Increased advertising by insurers, especially direct marketers, could cause consumers to shift their buying habits, bypassing independent agents altogether. Innovation, new or changing technologies and/or buying trends or consumer preferences could reduce or eliminate the need or demand for products we sell.

Our credit ratings or financial strength ratings of our insurance subsidiaries could be downgraded.

A downgrade in one or more of our company's credit or debt ratings could adversely impact our borrowing costs or limit our access to capital. Financial strength ratings reflect a rating agency's opinion of our insurance subsidiaries' financial strength, operating performance, strategic position and ability to meet obligations to policyholders. Our ratings are subject to periodic review and there is no assurance that our ratings will not be changed. Rating agencies could change or expand their requirements or could find that our insurance subsidiaries no longer meet the criteria established for current ratings. If our property casualty or life insurance subsidiary insurer financial strength ratings were to be downgraded, our agents might find it more difficult to market our products or might choose to emphasize the products of other carriers.

We could experience an unusually high level of losses due to catastrophic, terrorism or epidemic events or risk concentrations.

In the normal course of our business, both in our insurance and reinsurance operations, we provide coverage against perils for which estimates of losses are highly uncertain, in particular catastrophic and terrorism events. Catastrophes can be man-made or caused by natural perils. Man-made catastrophes to which we may be exposed include, but are not limited to, industrial accidents, terrorist attacks, social unrest and riot. Natural peril catastrophe events to which we may be exposed include, but are not limited to, hurricanes, tornadoes, windstorms, earthquakes, landslides, hailstorms, flooding, severe winter weather and wildfires. Due to the nature of these events, we are unable to predict precisely the frequency or potential cost of catastrophe occurrences. Various scientists and other experts believe that changing climate conditions have added to the unpredictability, frequency and severity of such natural disasters in certain parts of the world and have created additional uncertainty as to future trends and exposures. We cannot predict the impact that changing climate conditions may have on our results of operations nor can we predict how any legal, regulatory or social responses to concerns about climate change may impact our business. Additionally, man-made events, such as hydraulic fracturing, could cause damage from earth movement or create environmental and/or health hazards.

The extent of losses from a catastrophe is a function of both the total amount of insured and reinsured exposure in the area affected by the event and the severity of the event. Our ability to appropriately manage catastrophe risk depends partially on catastrophe models, which may be affected by inaccurate or incomplete data, the uncertainty of the frequency and severity of future events and the uncertain impact of climate change. Additionally, these models are recalibrated and changed over time, with more data availability and changing opinions regarding the effect of current or emerging loss patterns and conditions.

According to these models, probable maximum loss estimates from a single hurricane event that combine the effects of property casualty insurance written on a direct basis by The Cincinnati Insurance Companies, the Cincinnati Re reinsurance portfolio and risks insured by Cincinnati Global include the following amounts, net of amounts recoverable through reinsurance ceded and also income taxes, and including the effects of estimated reinstatement premiums: \$326 million for a once-in-a-100-year event and \$459 million for a once-in-a-250-year event. Please see Item 7, Liquidity and Capital Resources, 2021 Reinsurance Programs, for a discussion of modeled losses considered in evaluating our risk mitigation strategy, which includes our ceded reinsurance program.

The geographic regions in which we market insurance and reinsurance are exposed to numerous natural catastrophes, such as:

- Hurricanes in the gulf, eastern, southeastern and northeastern coastal regions.

- Earthquakes in many regions, most particularly in the New Madrid fault zone, California, the Northwest and Southwest.

- Tornadoes, wind and hail in the Midwest, South, Southeast, Southwest and the mid-Atlantic.

- Wildfires.

On a worldwide basis, in the event of a severe catastrophic event or terrorist attack we may be exposed to material losses through our Cincinnati Re and Cincinnati Global operations.

The occurrence of terrorist attacks in the geographic areas we serve could result in substantially higher claims under our insurance policies than we have anticipated. While our insurance policies provide coverage for terrorism risk in all areas we serve, we have identified our major terrorism exposure geographically as risks in the Tier 1 cities of Chicago, Dallas, New York, Houston, Los Angeles and Washington D.C. We have a greater amount of business in less hazardous Tier 2 cities such as Atlanta, Cincinnati, Cleveland, Denver, Minneapolis, Phoenix-Mesa, Pittsburgh, St. Louis and Tampa-St. Petersburg. We have exposure to small co-op utilities, water utilities, wholesale fuel distributors, small shopping malls and small colleges throughout our 45 active states and, because of the number of associates located there, our Fairfield, Ohio, headquarters. Additionally, our life insurance subsidiary could be adversely affected in the event of a terrorist event or an epidemic, particularly if the epidemic were to affect a broad range of the population, or affects the overall economy. Our associate health plan is self-funded and could similarly be affected.

Our results of operations would be adversely affected if the level of losses we experience over a period of time were to exceed our actuarially determined expectations. In addition, our financial condition may be adversely affected if we were required to sell securities prior to maturity or at unfavorable prices to pay an unusually high level of loss and loss expenses. Securities pricing might be even less favorable if a number of insurance or other companies and other investors needed to sell securities during a short period of time because of unusually high losses from catastrophic events.

Our geographic concentration ties our performance to business, economic, environmental and regulatory conditions in certain states. We market our standard market property casualty insurance products in 45 states, but our business is concentrated in the Midwest and Southeast. We also have exposure in states where we do not actively market insurance when clients of our independent agencies have businesses or properties in multiple states.

The Cincinnati Insurance Company continues to expand its Cincinnati Re reinsurance assumed operations and has staffed it with seasoned underwriting and analytical talent who strive to assume risks that we understand well, both quantitatively and qualitatively. Business written includes treaties that provide coverage for property catastrophe and terrorism events on a worldwide basis. Based on treaties in effect at January 1, 2021, the largest loss exposure to us for Cincinnati Re is from natural catastrophe events. That exposure includes probable maximum loss estimates, on a marginal basis, of the following amounts: \$116 million for a once-in-a-100-year event and \$118 million for a once-in-a-250-year event. Those effects represent a single hurricane event and include the effects of income taxes, estimated reinstatement premiums and applicable reinsurance ceded, including any retrocessions for reinsurance assumed, and estimated reinstatement premiums. They are based on probable maximum loss estimates from the Applied Insurance Research Touchstone® version 7.0 catastrophe model. The marginal basis reflects diversification effects of the Cincinnati Re reinsurance portfolio and property casualty insurance written on a direct basis by The Cincinnati Insurance Companies. Ignoring diversification effects provided by those two components, on a standalone basis, probable maximum loss estimates for Cincinnati Re include the following amounts: \$167 million for a once-in-a-100-year event and \$193 million for a once-in-a-250-year event. If there is a high frequency of large property catastrophe or terrorism events, or a single extreme event, during the coverage period of these treaties, our financial position and results of operations could be materially affected.

We are also expanding Cincinnati Global, our global specialty underwriter with premiums primarily for U.S. and international property exposures, given its seasoned underwriting talent. At January 1, 2021, the largest loss exposure to us for Cincinnati Global is from natural catastrophe events. That exposure includes probable maximum loss estimates of the following amounts: \$48 million for a once-in-a-100-year event and \$77 million for a once-in-a-250-year event. Those effects are on a standalone basis and represent a single hurricane event and include the effects of income taxes, applicable reinsurance ceded and estimated reinstatement premiums. They are

based on probable maximum loss estimates from the Applied Insurance Research Touchstone version 7.0 catastrophe model. If there is a high frequency of large property catastrophe or terrorism events, or a single extreme event, during the coverage period of its policies, our financial position and results of operations could be materially affected.

Additionally, the companies we invest in might be severely affected by a severe catastrophic event, terrorist attack, or epidemic event which could affect our financial condition and results of operations. Our reinsurers might experience significant losses, potentially jeopardizing their ability to pay losses we cede to them. It could also reduce the availability of reinsurance. If we cannot obtain adequate coverage at a reasonable cost, it could constrain where we can write business or reduce the amount of business we can write in certain areas. We also may be exposed to state guaranty fund assessments if other carriers in a state cannot meet their obligations to policyholders. A catastrophe or epidemic event also could affect our operations by damaging our headquarters facility, injuring associates and visitors at our Fairfield, Ohio, headquarters or disrupting our associates' ability to perform their assigned tasks.

The outbreak of COVID-19 could result in an unusually high level of losses.

In March 2020, the outbreak of COVID-19, also known as the novel coronavirus SARS-CoV-2, was recognized as a pandemic by the World Health Organization. The outbreak has become increasingly widespread in the United States, including in the markets in which we operate. Like many companies in the property casualty insurance industry, our property casualty subsidiaries were named as defendants in lawsuits seeking insurance coverage under commercial property insurance policies issued by the company for alleged losses resulting from the shutdown or suspension of their businesses due to the COVID-19 pandemic. Risks to our business include legislation or court decisions that extend business interruption insurance in commercial property coverage forms to cover claims for pure economic loss related to the COVID-19 pandemic. Legislative initiatives and pending litigation are ongoing in numerous jurisdictions, and we cannot provide assurance that we will not be impacted by adverse legislation or adverse judicial rulings in certain of these jurisdictions. These actions seek to extend coverage beyond the terms and conditions we intended for those policies, including policies that do not contain specific virus exclusions. Therefore we could be forced to pay claims when no coverage was contemplated and for which no premium was collected. If these actions are successful, the aggregate amount of these claims could have a material, adverse impact on our business, financial condition, reputation, results of operations and cash flows.

Our net losses and loss adjustment expenses are estimates and actual net losses could be higher.

Our estimates for COVID-19 losses and loss adjustment expenses represent our best estimates as of December 31, 2020, based upon information currently available. These estimates are based on reported claims, policy level reviews and recent judicial rulings. However, assumptions about coverage, liability and reinsurance continue to be subject to on-going judicial review and may be subject to further government action. While we believe our net reserves for losses and loss adjustment expenses for COVID-19 as of December 31, 2020, are adequate based on information available at this time, we continue to closely monitor reported claims, government actions, judicial decisions and changes in the levels of worldwide social disruption and economic activity arising from the pandemic and will adjust our estimates of gross and net losses as new information becomes available. Factors that affect our estimates of losses and loss adjustment expenses or our ability to reasonably estimate such losses include the continuing duration of the pandemic and governmental actions to limit the spread of the virus that may produce additional economic losses; the number of policyholders that will ultimately submit claims or file lawsuits; the lack of submitted proofs of loss for allegedly covered claims; judicial rulings in similar litigation involving other companies in the insurance industry; difference in state law and developing case law in the relatively few decisions rendered to date; litigation trends, including varying legal theories advanced by policyholders; whether and to what degree any class of policyholders may be certified; and the inherent unpredictability of litigation. Such adjustments to our reserves for COVID-19 losses and loss adjustment expenses may be material to our results of operations, financial condition and cash flows.

A weaker economy could result in reduced insurance premium revenue.

The outbreak of COVID-19 could have adverse impacts on economic activity that affect demand for insurance or cause substantial disruption to our distribution channel of independent agents, due to self-isolation, travel limitations, business restrictions, and otherwise. During the pandemic, many areas within the United States have imposed mandatory closures for businesses not deemed to be essential. It is currently unclear if such mandatory closures will again be imposed or for how long such closures will last. Though most of our employees are able to work remotely, these closures have affected agents, through which we sell our products and services, or their clients, which could result in significant declines in premium revenues. In an effort to support insurance consumers

during this pandemic, most states where we market our products have issued mandates or requests such as moratoriums on policy cancellations or nonrenewals for nonpayments of premiums, forbearance on premium collections, waivers of late payment fees and extended periods in which policyholders may make their missed payments. Such actions may result in delayed premium receipts, disrupting cash flows and increasing credit risk from policyholders unable to make timely premium payments. Cash flows and gross premium receipts may also be affected by mid-term adjustments to exposures on which premium calculations are based to reflect the economic impact of the COVID-19 crisis on insureds' business operations. The amount or duration of the effects could adversely impact our business, financial condition, results of operations or cash flows. Such adverse impacts may be material.

Our ability to properly underwrite and price risks and increased competition could adversely affect our results.

Our financial condition, results of operations and cash flows depend on our ability to underwrite and set rates accurately for a full spectrum of risks. We establish our pricing based on assumptions about the level of losses that may occur within classes of business, geographic regions and other criteria.

To properly price our products, we must collect, properly analyze and use data to make decisions and take appropriate action; the data must be sufficient, reliable and accessible; we need to develop appropriate rating methodologies and formulae; and we may need to identify and respond to trends quickly. We may overestimate or underestimate loss cost trends or these trends may unexpectedly change, leading to losing business by pricing risks above our competitors or charging rates too low to maintain profitability. Inflation trends, especially outside of historical norms, may make it more difficult to determine adequate pricing. If rates are not accurate, we may not generate enough premiums to offset losses and expenses, or we may not be competitive in the marketplace.

Our ability to set appropriate rates could be hampered if states where we write business refuse to allow rate increases that we believe are necessary to cover the risks insured. A state could also hamper our ability to set appropriate rates if it no longer allowed us to use factors that we believe are predictive of loss, such as credit-based factors. Multiple states require us to purchase reinsurance from a mandatory reinsurance fund. Such reinsurance funds can create a credit risk for insurers if not adequately funded by the state and, in some cases, the existence of a reinsurance fund could affect the prices charged for our policies. The effect of these and similar arrangements could reduce our profitability in any given period or limit our ability to grow our business.

The insurance industry is cyclical and intensely competitive. From time to time, the insurance industry goes through prolonged periods of intense competition during which it is more difficult to attract new business, retain existing business and maintain profitability. Competition in our insurance business is based on many factors, including:

- Competitiveness of premiums charged
- Relationships among carriers, agents, brokers and policyholders
- Underwriting and pricing methodologies that allow insurers to identify and flexibly price risks
- Compensation provided to agents
- Underwriting discipline
- Terms and conditions of insurance coverage
- Speed with which products are brought to market
- Product and marketing innovations, including advertising
- Technological competence and innovation
- Ability to control expenses
- Adequacy of financial strength ratings by independent rating agencies such as A.M. Best
- Quality of services and tools provided to agents and policyholders
- Claims satisfaction and reputation

We compete with major U.S., Bermudian, European, and other international insurers and reinsurers and with underwriting syndicates, some of which have greater financial, marketing and management resources than we do. Recent industry consolidation, including business combinations among insurance and other financial services companies, has resulted in larger competitors with even greater financial resources. We also compete with new companies that continue to enter the insurance and reinsurance markets. In addition, capital market participants have created alternative products that are intended to compete with reinsurance products that we sell in Cincinnati Re. Increased competition could result in fewer submissions, lower premium rates, and less favorable policy terms and conditions, which could reduce our underwriting margins and have a material adverse effect on our results of operations and financial condition.

If our pricing was incorrect or we were unable to compete effectively because of one or more of these factors, our premium writings could decline and our results of operations and financial condition could be materially adversely affected. Large competitors could intentionally disrupt the market by targeting certain lines or underpricing the market.

Please see the discussion of our Commercial Lines, Personal Lines, Excess and Surplus Lines and Life Insurance Segments in Item 1, Our Segments, for a discussion of our competitive position in the insurance marketplace.

Our pricing and capital models could be flawed.

We use various actuarial pricing methods, predictive pricing and underwriting models, stochastic models and/or forecasting techniques to help us understand our business, analyze risk and estimate future trends. The output of these techniques and models is used to assist us in making underwriting, pricing, reinsurance, reserving and capital decisions and helps us set our strategic direction. These models contain numerous assumptions, including the assumption that the data used is sufficient and accurate. They are also subject to uncertainties and limitations inherent in any statistical analysis. Actual results may be materially different from modeled output, resulting in pricing our products incorrectly, overestimating or underestimating reserves, or inaccurately forecasting the impact of modeled events on our results. This could materially adversely impact the results of our operations.

Our loss reserves, our largest liability, are based on estimates and could be inadequate to cover our actual losses.

Our consolidated financial statements are prepared using GAAP. These principles require us to make estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying Notes. Actual results could differ materially from those estimates. For a discussion of the significant accounting policies we use to prepare our financial statements, the material implications of uncertainties associated with the methods, assumptions and estimates underlying our critical accounting policies and the process used to determine our loss reserves, please refer to Item 8, Note 1 of the Consolidated Financial Statements, and Item 7, Critical Accounting Estimates, Property Casualty Insurance Loss and Loss Expense Reserves and Life Insurance Policy Reserves.

Our most critical accounting estimate is loss reserves. Loss reserves are the amounts we expect to pay for covered claims and expenses we incur to settle those claims. The loss reserves we establish in our financial statements represent an estimate of amounts needed to pay and administer claims arising from insured events that have already occurred, including events that have not yet been reported to us. Loss reserves are estimates and are inherently uncertain; they do not and cannot represent an exact measure of liability. Inflationary scenarios, especially scenarios outside of historical norms or regulatory changes that affect the assumptions underlying our critical accounting estimates, may make it more difficult to estimate loss reserves. Accordingly, our loss reserves for past periods could prove to be inadequate to cover our actual losses and related expenses. Any changes in these estimates are reflected in our results of operations during the period in which the changes are made. An increase in our loss reserves would decrease earnings, while a decrease in our loss reserves would increase earnings.

Unforeseen losses, the type and magnitude of which we cannot predict, may emerge. These additional losses could arise from changes in the legal environment, laws and regulations, climate change, catastrophic events, increases in loss severity or frequency, environmental claims, mass torts or other causes such as social inflation. Such future losses could be substantial. Inflationary scenarios may cause the cost of claims, especially medical claims, to rise, impacting reserve adequacy and our results of operations.

In addition to the risks stated above, Cincinnati Re reserves are subject to uncertainty because a reinsurer relies on the original underwriting decisions and claims reserving practices of ceding companies. As a result, we are subject to the risk that our ceding companies may not have adequately evaluated the risks reinsured by us and the premiums ceded may not adequately compensate us for the risks we assume. In addition, there is generally a longer lapse of time from the occurrence of the event to the reporting of the loss or benefit to the reinsurer and ultimate resolution or settlement of the loss. Similar risks exist for Cincinnati Global due to reliance on coverholders in underwriting parts of its business.

The anticipated benefits may not be realized for our acquisition of Cincinnati Global.

Cincinnati Global, our London-based global specialty underwriter for Lloyd's Syndicate 318, was acquired on February 28, 2019. We can provide no assurance that the anticipated benefits of the transaction will be fully realized in the time frame anticipated or at all, or that the costs or difficulties related to the integration of its operations will not be greater than expected. The success of the transaction will depend, in part, on our ability to realize the anticipated business opportunities and growth prospects from acquiring Cincinnati Global. We may never realize these business opportunities and growth prospects, and our management might have its attention diverted while trying to integrate operations.

Cincinnati Global's international operations subjects us to additional regulation and could expose us to additional investment, political and economic risks.

We have international operations that could expose us to a number of additional risks. These risks include restrictions such as price controls, capital controls, currency exchange limits, ownership limits and other restrictive or anti-competitive governmental actions or requirements, which could have an adverse effect on our business and reputation. Our business activities outside the United States, including the United Kingdom (U.K.), could also be subject to political and economic risks, including foreign currency and credit risk. Additionally, Cincinnati Global's operations will expand the products offered by us and could expose us to additional regulation or other risks.

Additionally, business activities outside the United States will subject us to additional domestic and foreign laws and regulations, including the Foreign Corrupt Practices Act, the U.K. Bribery Act and similar laws in other countries that prohibit the making of improper payments to foreign officials. In addition, insurers in the U.K. (including managing agents and members of Lloyd's of London) are subject to Solvency II and the U.K. regulatory regime, which itself includes rules promulgated by Lloyd's. Although we have policies and controls in place that are designed to ensure compliance with these laws and regulatory requirements, if those controls are ineffective and an employee or intermediary fails to comply with applicable laws and regulations, we could suffer civil and criminal penalties and our business and reputation could be adversely affected. Some countries have laws and regulations that lack clarity and, even with local expertise and effective controls, it can be difficult to determine the exact requirements of, and potential liability under, the local laws. Failure to comply with local laws in a particular market may result in substantial liability and could have a significant and negative effect not only on our business in that market but also on our reputation generally.

Business activities at Cincinnati Global are subject to Lloyd's approval of a business plan each year. There is risk that plans will not be approved or will be limited. As a Lloyd's managing agent and syndicate, Cincinnati Global is exposed to various risks and the uncertainties associated, including its obligation to maintain funds at Lloyd's to support its underwriting activities and periodic assessment of its capital, governance and other aspects of its business.

Developments relating to the United Kingdom's leaving the European Union could adversely affect Cincinnati Global's operations.

The terms of the U.K.'s withdrawal from the European Union (Brexit) and the relationship between the U.K. and the European Union going forward can affect economic conditions, including the terms of trade between them. The ultimate impact of Brexit is uncertain and will depend on any agreements that the U.K. makes to retain access to European Union markets. Brexit could also lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which European Union laws to replace or replicate. These or other adverse consequences from Brexit could adversely affect the operations and business opportunities of Cincinnati Global.

With a view to mitigating the potential effects of Brexit on business underwritten through Lloyd's, it has set up an insurance company subsidiary in Belgium, with the intention of underwriting European Economic Area insurance business via that subsidiary. It is uncertain how effective Lloyd's proposed Brexit contingency plan will be.

Our ability to obtain or collect on our reinsurance protection could affect our business, financial condition, results of operations or cash flows.

We buy property casualty and life reinsurance coverage to mitigate the liquidity risk and earnings volatility risk of an unexpected rise in claims severity or frequency from catastrophic events or a single large loss. The availability, amount and cost of reinsurance depend on market conditions and may vary significantly. If we were unable to obtain reinsurance on acceptable terms and in appropriate amounts, our business and financial condition could be adversely affected.

In addition, we are subject to credit risk with respect to our reinsurers. Although we purchase reinsurance to manage our risks and exposures to losses, this reinsurance does not discharge our direct obligations under the policies we write. We would remain liable to our policyholders even if we were unable to recover what we believe we are entitled to receive under our reinsurance contracts. Reinsurers might refuse or fail to pay losses that we cede to them, or they might delay payment. For long-tail claims, the creditworthiness of our reinsurers may change before we can recover amounts to which we are entitled. A reinsurer's insolvency, inability or unwillingness to make payments under the terms of its reinsurance agreement with our insurance subsidiaries could have a material adverse effect on our financial position, results of operations or cash flows.

Please see Item 7, Liquidity and Capital Resources, 2021 Reinsurance Ceded Programs, for a discussion of selected reinsurance transactions.

Risks related to investments or other financial matters

Financial disruption or a prolonged economic downturn could materially and adversely affect our investment performance.

The outbreak of COVID-19 has contributed to recent significant disruption and volatility for financial markets and decreased economic activity. Many companies have experienced uncertainty and reduced liquidity. These market conditions could cause our investment income or the value of securities we own to decrease. In the event that these conditions recur or result in a prolonged economic downturn, they could adversely impact our financial condition, results of operations or cash flows. Such adverse impacts may be material.

Our ability to achieve our performance objectives could be affected by changes in the financial, credit and capital markets or the general economy.

We invest premiums received from policyholders and other available cash to generate investment income and capital appreciation, while also maintaining sufficient liquidity to pay covered claims and operating expenses, service our debt obligations and pay dividends. The value of our invested assets is an important component of shareholders' equity, also known as book value. Changes in the valuation of invested assets can significantly affect changes in book value per share, a key performance objective as discussed in Item 7, Executive Summary of Management's Discussion and Analysis.

For fixed-maturity investments such as bonds, which represented 58.2% of the fair value of our investment portfolio at the end of 2020, the inverse relationship between interest rates and bond prices leads to falling bond values during periods of increasing interest rates. A significant increase in the general level of interest rates could have an adverse effect on our shareholders' equity.

Investment income is an important component of our revenues and net income. The ability to increase investment income and generate longer-term growth in book value is affected by factors beyond our control, such as: inflation, economic growth, interest rates, world political conditions, changes in laws and regulations, epidemic events, terrorism attacks or threats, adverse events affecting other companies in our industry or the industries in which we invest, market events leading to credit constriction, and other widespread unpredictable events. These events may adversely affect the economy generally and could cause our investment income or the value of securities we own to decrease. A significant decline in our investment income could have an adverse effect on our net income, and thereby on our shareholders' equity and our statutory capital and surplus. For a more detailed discussion of risks associated with our investments, please refer to Item 7A, Quantitative and Qualitative Disclosures About Market Risk.

We have issued life contracts with guaranteed minimum returns, referred to as bank-owned life insurance contracts (BOLIs). BOLI investment assets must meet certain criteria established by the regulatory authorities in the jurisdiction for which the group contract holder is subject. Therefore, sales of investments may be mandated to maintain compliance with these regulations, possibly requiring gains or losses to be recorded. We could experience losses if the assets in the accounts were less than liabilities at the time of maturity or termination.

Our investment performance also could suffer because of the types of investments, industry groups and/or individual securities in which we choose to invest. Market value changes related to these choices could cause a material change in our financial condition or results of operations.

At year-end 2020, common stock holdings made up 40.3% of our investment portfolio. Adverse news or events affecting the global or U.S. economy or the equity markets could affect our net income, book value and overall results, as well as our ability to pay our common stock dividend. See Item 7, Investments Results, and Item 7A, Quantitative and Qualitative Disclosures About Market Risk, for a discussion of our investment activities.

Deterioration in the banking sector or in banks with which we have relationships could affect our results of operations. Our ability to maintain or obtain short-term lines of credit could be affected if the banks from which we obtain these lines are acquired, fail or are otherwise negatively affected. We may lose premium revenue if a bank that owns appointed agencies were to change its strategies. We could experience increased losses in our director and officer liability line of business if claims were made against insured financial institutions.

A deterioration of credit and market conditions could also impair our ability to access credit markets and could affect existing or future lending arrangements.

Our overall results could be affected if a significant portion of our commercial lines policyholders, including those purchasing surety bonds, are adversely affected by marked or prolonged economic downturns and events such as a downturn in construction and related sectors, tightening credit markets and higher fuel costs. Such events could make it more difficult for policyholders to finance new projects, complete projects or expand their businesses, leading to lower premiums from reduced payrolls and sales and lower purchases of equipment and vehicles. These events could also cause claims, including surety claims, to increase due to a policyholder's inability to secure necessary financing to complete projects or to collect on underlying lines of credit in the claims process. Such economic downturns and events could have a greater impact in the construction sector where we have a concentration of risks and in geographic areas that are hardest hit by economic downturns.

Deteriorating economic conditions could also increase the degree of credit risk associated with amounts due from independent agents who collect premiums for payment to us and could hamper our ability to recover amounts due from reinsurers.

Our status as an insurance holding company with no direct operations could affect our ability to pay dividends in the future.

Cincinnati Financial Corporation is a holding company that transacts substantially all of its business through its subsidiaries. Our primary assets are the stock in our operating subsidiaries and our investments. Consequently, our cash flow to pay cash dividends and interest on our long-term debt depends on dividends we receive from our operating subsidiaries and income earned on investments held at the parent-company level.

Dividends received from our lead insurance subsidiary are restricted by the insurance laws of Ohio, its domiciliary state. These laws establish minimum solvency and liquidity thresholds and limits. In 2021, the maximum dividend that may be paid without prior regulatory approval is limited to the greater of 10% of statutory capital and surplus or 100% of statutory net income for the prior calendar year, up to the amount of statutory unassigned capital and surplus as of the end of the prior calendar year. Dividends exceeding these limitations may be paid only with prior approval of the Ohio Department of Insurance. We might not be able to receive dividends from our insurance subsidiaries, or we might not receive dividends in the amounts necessary to meet our debt obligations or to pay dividends on our common stock without liquidating securities. This could affect our financial position.

Please see Item 1, Regulation, and Item 8, Note 9 of the Consolidated Financial Statements, for a discussion of insurance holding company dividend regulations.

General risk factors

Our business depends on the uninterrupted operation of our facilities, systems and business functions.

Our business depends on our associates' ability to perform necessary business functions, such as processing new and renewal policies and handling claims. We increasingly rely on technology and systems to accomplish these business functions in an efficient and uninterrupted fashion. Our inability to access our headquarters facilities for certain critical functions or a failure of technology, telecommunications or other systems or the loss or failure of services provided by key vendors, could significantly impair our ability to perform such functions on a timely basis or affect the accuracy of transactions. If sustained or repeated, such a business interruption or system failure could result in a deterioration of our ability to write and process new and renewal business, serve our agents and policyholders, pay claims in a timely manner, collect receivables or perform other necessary business functions. If our disaster recovery and business continuity plans did not sufficiently consider, address or reverse the circumstances of an interruption or failure, this could result in a materially adverse effect on our operating results and financial condition. This risk is exacerbated because approximately 64% of our associates typically work at our Fairfield, Ohio, headquarters. As stay-at-home actions were enacted in 2020, we promptly and effectively transitioned most of our headquarters associates to working from home.

Our ability to successfully execute business functions also depends on hiring and retaining qualified associates. Competition for high-quality executives and other key associates occurs within the insurance industry and from other industries. We also must effectively develop and manage associates, including providing training and resources. Such tools and information can allow them to effectively perform critical business functions and adapt to changing business needs. If we were unable to attract and retain certain associates, or if we fail to provide adequate training or resources, we could limit the success of executing our strategic plans and vital business functions.

The effects of changes in industry practices, laws and regulations on our business are uncertain.

As industry practices and legal, judicial, legislative, regulatory, political, social and other environmental conditions change, unexpected and unintended issues related to insurance pricing, claims and coverage may emerge. These issues may adversely affect our business by impeding our ability to obtain adequate rates for covered risks or otherwise extending coverage beyond our underwriting intent, by increasing the number or size of claims, by varying assumptions underlying our critical accounting estimates or by increasing duties owed to policyholders beyond contractual obligations. In some instances, unforeseeable emerging and latent claim and coverage issues and court decisions or legislative changes may not become apparent until sometime after we have issued the insurance policies that could be affected by the changes. As a result, the full extent of liability under our insurance contracts may not be known for many years after a policy is issued and our pricing and reserve estimates may not accurately reflect its effect.

We are required to adopt new or revised accounting standards issued by recognized authoritative organizations, including the Financial Accounting Standards Board (FASB) and the SEC. Future changes required to be adopted could change the current accounting treatment that we apply and could result in material adverse effects on our results of operations, financial position or cash flows.

Our investment income benefits from tax rate preferences for municipal bond interest and dividend income from equity securities. Market valuations for these securities also benefit from the tax-preference aspect of current tax laws, affecting the value of our investment portfolio and also shareholders' equity. Future changes in tax laws could result in material adverse effects on our results of operations and financial condition.

The NAIC, state insurance regulators and state legislators continually re-examine existing laws and regulations governing insurance companies and insurance holding companies, specifically focusing on modifications to statutory accounting principles, interpretations of existing laws, regulations relating to product forms and pricing methodologies and the development of new laws and regulations that affect a variety of financial and nonfinancial components of our business. Any proposed or future legislation, regulation or NAIC initiatives, if adopted, may be more restrictive on our ability to conduct business than current regulatory requirements or may result in

higher costs. The loss or significant restriction on the use of a particular variable, such as credit, in pricing and underwriting our products could lead to future unprofitability and increased costs.

Federal laws and regulations and the influence of international laws and regulations, including those that may be enacted in the wake of the financial and credit crises, may have adverse effects on our business, potentially including a change from a state-based system of regulation to a system of federal regulation, the repeal of the McCarran Ferguson Act, and/or measures under the Dodd-Frank Act that establish the Federal Insurance Office and provide for a determination that a nonbank financial company presents systemic risk and therefore should be subject to heightened supervision by the Federal Reserve Board. It is not known how this federal office will coordinate and interact with the NAIC and state insurance regulators. Adoption or implementation of any of these measures may restrict our ability to conduct our insurance business, govern our corporate affairs or increase our cost of doing business.

The effects of such changes could adversely affect our results of operations. Please see Item 7, Critical Accounting Estimates, Property Casualty Insurance Loss and Loss Expense Reserves and Life Insurance Policy Reserves, for a discussion of our reserving practices.

Managing technology initiatives and meeting data security requirements are significant challenges.

While technology can streamline many business processes and ultimately reduce the costs of operations, technology initiatives present short-term cost and also have implementation and operational risks. In addition, we may have inaccurate expense projections, implementation schedules or expectations regarding the effectiveness and user acceptance of the end product. These issues could escalate over time. If we were unable to find and retain associates with key technical knowledge, our ability to develop and deploy key technology solutions could be hampered.

We necessarily collect, use and hold data concerning individuals and businesses with whom we have a relationship. Threats to data security, including unauthorized access and cyberattacks, rapidly emerge and change, exposing us to additional costs for protection or remediation and competing time constraints to secure our data in accordance with customer expectations and statutory and regulatory requirements.

While we take commercially reasonable measures to keep our systems and data secure, it is difficult or impossible to defend against every risk being posed by changing technologies as well as criminal and state-sponsored cybercrime and cyber threats. Increasing sophistication of cyber criminals and terrorists make keeping up with new threats difficult and could result in a breach. Patching and other measures to protect existing systems and servers could be inadequate, especially on systems that are being retired. Controls employed by our U.S., off-shore and cloud vendors could prove inadequate. We could also experience a breach by intentional or negligent conduct on the part of associates or other internal sources. Our systems and those of our third-party vendors may become vulnerable to damage or disruption due to circumstances beyond our or their control, such as from catastrophic events, power anomalies or outages, natural disasters, network failures, and viruses, ransomware and malware.

A breach of our security or the security of a vendor that results in unauthorized access to our data could expose us to a disruption or challenges relating to our daily operations as well as to data loss, litigation, damages, fines and penalties, significant increases in compliance costs and reputational damage.

ITEM 1B. Unresolved Staff Comments

None

ITEM 2. Properties

Cincinnati Financial Corporation owns our headquarters building located on 102 acres of land in Fairfield, Ohio. This building has 1,508,200 square feet of total space. The property, including land is recorded in our financial statements at \$133 million at December 31, 2020, and is classified as land, building and equipment, net, for company use. John J. & Thomas R. Schiff & Co. Inc., a related party, occupies 8,034 square feet (less than 1%). This property is used for the operations described in the Consolidated Financial Statements and accompanying Notes.

Cincinnati Financial Corporation owns Gilmore Pointe, located on the northwest corner of our headquarters property. This four-story building contains approximately 103,000 square feet of usable space. The property is recorded in the financial statements at \$5 million at December 31, 2020, and is classified as investment property in Other Invested Assets, net. At December 31, 2020, unaffiliated tenants occupied 86%, Cincinnati Financial affiliates occupied 14%.

The Cincinnati Insurance Company owns the CFC Winton Center used for multiple operations with approximately 48,000 square feet of total space, located approximately six miles from our headquarters. The property, including land, is recorded in our financial statements at \$8 million at December 31, 2020, and is classified as land, building and equipment, net, for company use.

We lease office space located in London, United Kingdom, for our Cincinnati Global operations. We also lease office space throughout the United States to support our insurance operations.

ITEM 3. Legal Proceedings

Neither the company nor any of our subsidiaries are involved in any litigation believed to be material other than ordinary, routine litigation incidental to the nature of our business.

ITEM 4. Mine Safety Disclosures

This item is not applicable to the company.

Part II

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

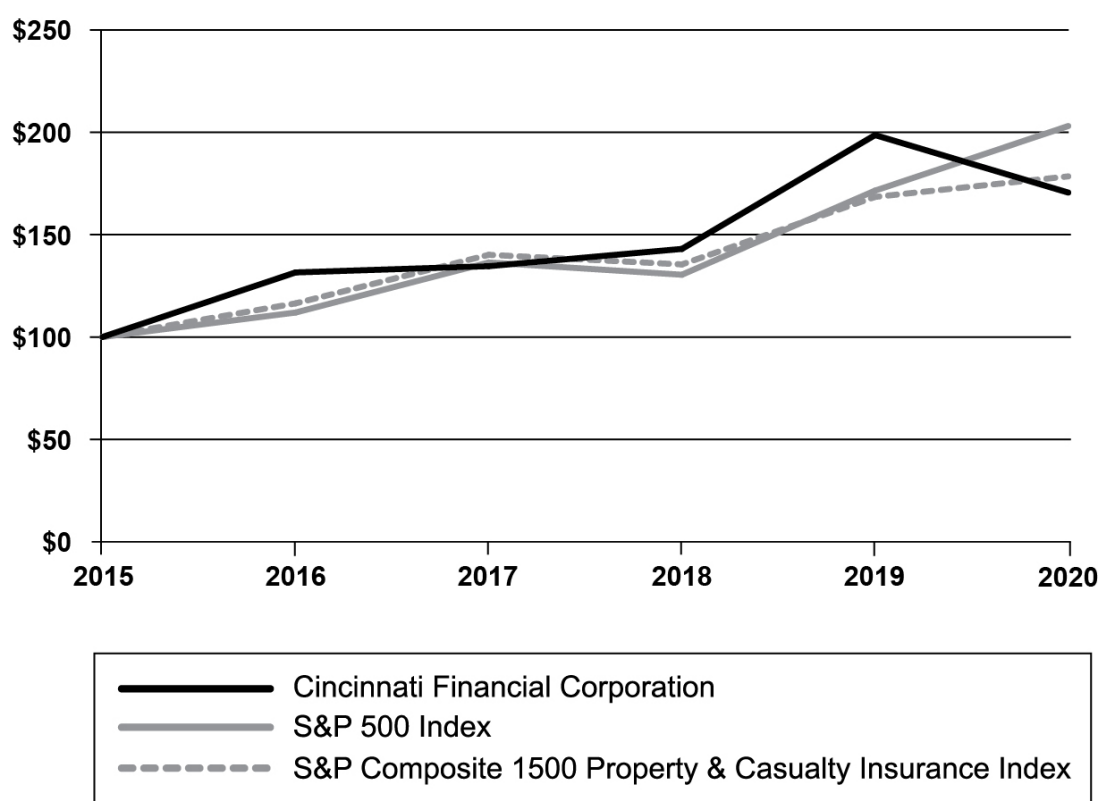
Cincinnati Financial Corporation had approximately 183,000 shareholders of record as of December 31, 2020. While approximately 13,500 shareholders are registered, the majority of shareholders are beneficial owners whose shares are held in "street name" by brokers and institutional accounts. We believe many of our independent agent representatives and most of the 5,266 associates of our subsidiaries own the company's common stock. Our common shares are traded under the symbol CINF on Nasdaq.

Cumulative Total Return

As depicted in the graph below, the five-year total return on a \$100 investment made December 31, 2015, assuming the reinvestment of all dividends, was 70.5% for Cincinnati Financial Corporation's common stock compared with 77.5% for the S&P Composite 1500 Property & Casualty Insurance Index and 103.0% for the S&P 500 Index.

The following graph depicts \$100 invested on December 31, 2015, in stock or index, including reinvestment of dividends. The years shown represent each respective fiscal year ending December 31.

Comparison of Five-Year Cumulative Total Return



The S&P 500 Index includes a representative sample of 500 leading companies in a cross section of industries of the U.S. economy. At year-end 2020, the S&P Composite 1500 Property & Casualty Insurance Index included 28 companies.

Issuances and Purchases of Equity Securities

The following summarizes securities authorized for issuance under our equity compensation plans as of December 31, 2020:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights at December 31, 2020	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plan (excluding securities reflected in column (a)) at December 31, 2020
	(a)	(b)	(c)
Equity compensation plans approved by security holders	3,601,343	\$ 72.55	7,078,200
Equity compensation plans not approved by security holders	—	—	—
Total	3,601,343	\$ 72.55	7,078,200

The number of securities remaining available for future issuance includes: 6,727,521 shares available for issuance under the Cincinnati Financial Corporation 2016 Stock Compensation Plan (the 2016 Plan), 78,709 shares available for issuance under the Cincinnati Financial Corporation 2012 Stock Compensation Plan (the 2012 Plan), and 271,970 shares available for issuance of share grants under the Director's Stock Plan of 2018. The number of securities remaining available for future issuance assumes the number of securities to be issued from performance-based awards are issued at the target-level performance level. Both the 2016 Plan and 2012 Plan allow for issuance of stock options, service-based or performance-based restricted stock units, stock appreciation rights or other equity-based grants. Awards other than stock options granted from the 2016 and 2012 plans are counted as three shares against the plan for each one share of common stock actually issued. Additional information about share-based associate compensation granted under our equity compensation plans is available in Item 8, Note 17 of the Consolidated Financial Statements.

We discuss the factors that affect our ability to pay cash dividends and repurchase shares in Item 7, Liquidity and Capital Resources. Regulatory restrictions on dividends our insurance subsidiaries can pay to the parent company are discussed in Item 8, Note 9 of the Consolidated Financial Statements.

The following summarizes shares purchased under our repurchase programs:

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 1-31, 2020	—	—	—	12,376,785
November 1-30, 2020	—	—	—	12,376,785
December 1-31, 2020	50,000	\$ 81.15	50,000	12,326,785
Totals	50,000	81.15	50,000	

We did not sell any of our shares that were not registered under the Securities Act during 2020. Our repurchase program does not have an expiration date. Our repurchase program was expanded on January 26, 2018, by 15 million shares. We have 12,326,785 shares available for purchase under our programs at December 31, 2020.

ITEM 6. Selected Financial Data

(In millions, except per share data and shares outstanding in thousands)

	Years ended December 31,				
	2020	2019	2018	2017	2016
Consolidated Income Statement Data					
Earned premiums	\$ 5,980	\$ 5,604	\$ 5,170	\$ 4,954	\$ 4,710
Investment income, net of expenses	670	646	619	609	595
Investment gains and losses, net *	865	1,650	(402)	148	124
Total revenues	7,536	7,924	5,407	5,732	5,449
Net income	1,216	1,997	287	1,045	591
Net income per common share:					
Basic	\$ 7.55	\$ 12.24	\$ 1.76	\$ 6.36	\$ 3.59
Diluted	7.49	12.10	1.75	6.29	3.55
Cash dividends per common share:					
Ordinary declared	2.40	2.24	2.12	2.00	1.92
Ordinary paid	2.36	2.21	2.09	1.98	1.90
Special declared and paid	—	—	—	0.50	—
Diluted weighted average shares	162.4	165.1	164.5	166.0	166.5
Consolidated Balance Sheet Data					
Total investments	\$ 21,542	\$ 19,746	\$ 16,732	\$ 17,051	\$ 15,500
Net unrealized investment portfolio gains	5,955	4,761	2,598	3,540	2,625
Deferred policy acquisition costs	805	774	738	670	637
Total assets	27,542	25,408	21,935	21,843	20,386
Gross loss and loss expense reserves	6,746	6,147	5,707	5,273	5,085
Life policy and investment contract reserves	2,915	2,835	2,779	2,729	2,671
Long-term debt	788	788	788	787	787
Shareholders' equity	10,789	9,864	7,833	8,243	7,060
Book value per share	67.04	60.55	48.10	50.29	42.95
Shares outstanding	160,941	162,918	162,843	163,899	164,387
Value creation ratio	14.7 %	30.5 %	(0.1)%	22.9 %	14.5 %
Consolidated Property Casualty Operations Data					
Earned premiums	\$ 5,691	\$ 5,334	\$ 4,920	\$ 4,722	\$ 4,482
Unearned premiums	2,959	2,787	2,515	2,403	2,306
Gross loss and loss expense reserves	6,677	6,088	5,646	5,219	5,035
Investment income, net of expenses	431	419	401	392	384
Loss and loss expense ratio	67.4 %	62.8 %	65.5 %	66.4 %	63.8 %
Underwriting expense ratio	30.7	31.0	30.9	31.1	31.0
Combined ratio	98.1 %	93.8 %	96.4 %	97.5 %	94.8 %

* Investment gains and losses are integral to our financial results over the long term, but our substantial discretion in the timing of investment sales may cause this value to fluctuate substantially. Also, applicable accounting standards require us to recognize gains and losses from changes in fair values of equity securities and changes in embedded derivatives without actual realization of those gains and losses. We discuss investment gains and losses for the past three years in Item 7, Investments Results.

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

Introduction

The purpose of Management's Discussion and Analysis is to provide an understanding of Cincinnati Financial Corporation's consolidated results of operations and financial condition. Our Management's Discussion and Analysis should be read in conjunction with Item 6, Selected Financial Data, and Item 8, Consolidated Financial Statements and related Notes. We present per share data on a diluted basis unless otherwise noted, adjusting those amounts for all stock splits and stock dividends.

We begin with an executive summary of our results of operations, followed by other highlights, an overview of our strategy, an outlook for future performance and details about critical accounting estimates. In several instances, we refer to estimated industry data so that we can provide information on our performance within the context of the overall insurance industry. Unless otherwise noted, the industry data is prepared by A.M. Best, a leading insurance industry statistical, analytical and financial strength rating organization. Information from A.M. Best is presented on a statutory accounting basis for insurance company regulation in the United States of America. When we provide our results on a comparable statutory accounting basis, we label it as such; all other company data is presented in accordance with accounting principles generally accepted in the United States of America (GAAP).

Through The Cincinnati Insurance Company, Cincinnati Financial Corporation is one of the 25 largest property casualty insurers in the nation, based on net written premium volume for the first nine months of 2020, among approximately 2,000 U.S. stock and mutual insurer groups. We market our insurance products through a select group of independent insurance agencies in 45 states as discussed in Item 1, Our Business and Our Strategy.

The U.S. economy, the insurance industry and our company continue to face many challenges. Our long-term perspective has allowed us to address immediate challenges while also focusing on the major decisions that best position the company for success through all market cycles. We believe that this forward-looking view consistently benefits our shareholders, agents, policyholders and associates.

To measure our progress, we have defined a measure of value creation that we believe captures the contribution of our insurance operations, the success of our investment strategy and the importance we place on paying cash dividends to shareholders. We refer to this measure as our value creation ratio (VCR) and it is made up of two primary components: (1) our rate of growth in book value per share plus (2) the ratio of dividends declared per share to beginning book value per share. This measure, intended to be all-inclusive regarding changes in book value per share, uses originally reported book value per share in cases where book value per share has been adjusted, such as after the adoption of Accounting Standards Updates with a cumulative effect of a change in accounting.

Executive Summary

Our value creation ratio, defined above, is our primary performance target. VCR trends are shown in the table below.

	One year	Three-year % average	Five-year % average
Value creation ratio:			
As of December 31, 2020	14.7 %	15.0 %	16.5 %
As of December 31, 2019	30.5	17.8	14.2
As of December 31, 2018	(0.1)	12.4	10.7

We are targeting an annual value creation ratio averaging 10% to 13% over the next five-year period. At 14.7% for 2020, our performance exceeded the high end of that range. We also exceeded the high end of it for both the three-year and five-year periods that ended in December 2020.

The table below shows the primary components of our value creation ratio on a percentage basis. Analysis of the components aids understanding of our financial performance. Our financial results are further analyzed in the Corporate Financial Highlights section below.

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Pt. Change	Pt. Change
Value creation ratio major components:					
Net income before investment gains	5.5 %	8.9 %	7.4 %	(3.4)	1.5
Change in fixed-maturity securities, realized and unrealized gains	3.0	5.5	(3.2)	(2.5)	8.7
Change in equity securities, investment gains	7.5	16.6	(3.8)	(9.1)	20.4
Other	(1.3)	(0.5)	(0.5)	(0.8)	0.0
Value creation ratio	14.7 %	30.5 %	(0.1)%	(15.8)	30.6

The 2020 value creation ratio decreased by 15.8 percentage points, compared with 2019, primarily due to a less favorable valuation for our investment portfolio, as shown in the table above. The increase in 2019, compared with 2018, was primarily due to a higher valuation for our investment portfolio. Operating results in 2019 contributed to VCR more than in 2018, despite a 0.7% contribution from certain non-recurring items in the 2018 ratio, including the impact of various tax accounting method changes.

We believe our value creation ratio is a useful measure. The table below shows calculations for VCR.

(Dollars are per share)

	Years ended December 31,		
	2020	2019	2018
Value creation ratio:			
End of period book value*	\$ 67.04	\$ 60.55	\$ 48.10
Less beginning of period book value	60.55	48.10	50.29
Change in book value	6.49	12.45	(2.19)
Dividend declared to shareholders	2.40	2.24	2.12
Total value creation	\$ 8.89	\$ 14.69	\$ (0.07)
Value creation ratio from change in book value**	10.7 %	25.9 %	(4.3)%
Value creation ratio from dividends declared to shareholders***	4.0	4.6	4.2
Value creation ratio	14.7 %	30.5 %	(0.1)%

* Book value per share is calculated by dividing end of period total shareholders' equity by end of period shares outstanding

** Change in book value divided by the beginning of year book value

*** Dividend declared to shareholders divided by beginning of year book value

When looking at our longer-term objectives, we see three primary performance drivers for our value creation ratio:

Premium growth – We believe over any five-year period our agency relationships and initiatives can lead to a property casualty written premium growth rate that exceeds the industry average. The compound annual growth rate of our net written premiums was 6.1% over the five-year period 2016 through 2020, exceeding the 4.6% estimated growth rate for the property casualty insurance industry. The industry's growth rate excludes its mortgage and financial guaranty lines of business.

Combined ratio – We believe our underwriting philosophy and initiatives can drive performance to achieve our underwriting profitability target of a GAAP combined ratio over any five-year period that consistently averages within the range of 95% to 100%. Our GAAP combined ratio averaged 96.1% over the five-year period 2016 through 2020, near the more favorable end of the performance target range. Performance as measured by the combined ratio is discussed in Consolidated Property Casualty Insurance Results. Our statutory combined ratio averaged 95.6% over the five-year period 2016 through 2020, compared with an estimated 100.6% for the property casualty industry. The industry's ratio again excludes its mortgage and financial guaranty lines of business.

Investment contribution – We believe our investment philosophy and initiatives can drive investment income growth and lead to a total return on our equity investment portfolio over a five-year period that exceeds the five-year total return of the S&P 500 Index.

- Investment income growth, on a pretax basis, had a compound annual growth rate of 3.2% over the five-year period 2016 through 2020.
- Over the five years ended December 31, 2020, our equity portfolio compound annual total return was 15.9% compared with a compound annual total return of 15.2% for the Index. Our equity portfolio favors larger-capitalization, high-quality, dividend-growing stocks with a slight value orientation. For the year 2020, our equity portfolio total return was 14.7%, compared with 18.4% for the Index.

The board of directors is committed to rewarding shareholders directly through cash dividends and share repurchase authorizations. Through 2020, the company has increased the annual cash dividend rate for 60 consecutive years, a record we believe is matched by only seven other publicly traded U.S. companies. In addition to regular dividends, strong capital and excellent company performance has provided opportunities to further reward shareholders, including a special dividend paid in December 2017. The board regularly evaluates relevant factors in dividend-related decisions, and the 2020 increase to the regular dividend reflected confidence in our strong capital, liquidity and financial flexibility, as well as progress through our initiatives to improve earnings performance while growing insurance premium revenues. We discuss our financial position in more detail in Liquidity and Capital Resources.

Corporate Financial Highlights

In addition to the value creation ratio discussion and analysis in the Executive Summary, we further analyze our financial results in the sections below.

Balance Sheet Data

(Dollars in millions, except share data)		At December 31, 2020	At December 31, 2019
Total investments	\$	21,542	\$ 19,746
Total assets		27,542	25,408
Short-term debt		54	39
Long-term debt		788	788
Shareholders' equity		10,789	9,864
Book value per share		67.04	60.55
Debt-to-total-capital ratio		7.2 %	7.7 %

Total investments increased by 9% during 2020 on a fair value basis, with an increase in our securities portfolio valuation that added to a 4% increase in its cost basis. Entering 2021, we believe the portfolio continues to be well diversified and is well positioned to withstand short-term fluctuations. We discuss our investment strategy in Item 1, Investments Segment, and results for the segment in Investments Results. Total assets rose 8%. Shareholders' equity increased by 9% and book value per share increased by 11%, for reasons discussed in the preceding Executive Summary.

The amount of our debt obligations increased by \$15 million in 2020, compared with 2019. Our 7.2% ratio of debt to total capital (debt plus shareholders' equity) at year-end 2020 decreased by 0.5 percentage points compared with the prior-year ratio.

Income Statement and Per Share Data

(In millions, except per share data)		Years ended December 31,			2020-2019	2019-2018
		2020	2019	2018	Change %	Change %
Earned premiums	\$	5,980	\$ 5,604	\$ 5,170	7	8
Investment income, net of expenses (pretax)		670	646	619	4	4
Investment gains and losses, net (pretax)		865	1,650	(402)	(48)	nm
Total revenues		7,536	7,924	5,407	(5)	47
Net income		1,216	1,997	287	(39)	596
Comprehensive income		1,537	2,423	24	(37)	nm
Net income per share - diluted		7.49	12.10	1.75	(38)	591
Cash dividends declared per share		2.40	2.24	2.12	7	6
Diluted weighted average shares outstanding		162.4	165.1	164.5	(2)	0

Net income decreased by \$781 million or 39% in 2020, compared with 2019, including a \$620 million decrease for 2020 net investment gains after taxes. The decrease in 2020 net income also included a decrease in property casualty underwriting income of \$175 million after taxes, as discussed below, and was partially offset by a \$21 million increase in investment income after taxes. Our investment operation's performance is discussed further in Investments Results. Net income in 2018 included a \$56 million benefit from certain other non-recurring items, primarily the impact of various tax accounting method changes as disclosed in Item 8, Note 11 of the Consolidated Financial Statements.

During much of 2020, the novel coronavirus (SARS-CoV-2 or COVID-19), recognized as a pandemic by the World Health Organization, caused significant economic effects where we operate, including temporary closures of many businesses and reduced consumer spending due to shelter-in-place, stay-at-home and other governmental actions. Those orders and the uncertainty surrounding COVID-19 had broad financial market effects and caused significant market disruption and volatility.

As the pandemic unfolded, management met with the board of directors frequently to discuss matters such as our response to prioritize the health and safety of our associates, agents and policyholders. Discussion also included near-term and longer-term financial effects. As stay-at-home orders were enacted, we promptly and effectively transitioned most of our headquarters associates to working from home. We provided the technology necessary to keep the business running, as associates continued writing and collecting insurance premiums, responding to claims and performing other operational functions. They joined our field associates who already worked from home, providing agents and policyholders with outstanding service. At the end of 2020, nearly all of our associates continued to work from home.

The COVID-19 pandemic slowed the growth of our premium revenues for 2020, including new business written premiums. Premium growth by segment is discussed below in Financial Results. For future periods, renewal premium or new business premium amounts could further decline if the basis for policy premiums, such as sales and payrolls of businesses we insure, decrease as a result of the pandemic and a weakened economy. In addition, the ultimate effects of past or future government-ordered actions, including moratoriums or deferral of premium payments related to our insurance policies, are uncertain and may further adversely affect premium growth.

During 2020, pandemic-related incurred losses and expenses totaled \$85 million. The total included \$30 million for legal expenses in defense of business interruption claims, \$19 million for Cincinnati Re[®] losses, \$12 million for Cincinnati Global Underwriting Ltd.SM (Cincinnati Global) losses, \$8 million for credit losses related to uncollectible premiums and \$16 million for the Stay-at-Home policyholder credit for personal auto policies.

Factors used in estimating reserves for business interruption legal expenses included estimates for attorney fees associated with the defense of such lawsuits filed against the company; litigation trends of such cases, including responding to amended and replead cases and cases on appeal; and trends in judicial decisions in cases filed against the company and other insurers.

Approximately half of the losses for Cincinnati Re represent its estimated share from reinsurance treaties with companies that provided affirmative coverage for pandemic-related business interruption, and most of the remainder is an estimated share of treaties covering professional liability. Most of the losses for Cincinnati Global represent its share of potential losses from business interruption coverage for large risks with customized policy terms and conditions.

Most of our commercial property policies are written to preclude coverage for business interruption claims unless there is direct physical loss or damage to property. For this reason, most of our standard market commercial property policies in states where we actively write business do not contain a specific virus exclusion.

Loss experience for our insurance operations is influenced by many factors, as discussed in Critical Accounting Estimates, Property Casualty Insurance Loss and Loss Expense Reserves. Because of various factors that affect exposure to certain insurance losses, such as less miles driven for vehicles or reduced sales and payrolls for businesses, there could be a reduction in future losses, and in some cases a generally corresponding reduction in premiums. Also, there could be losses or legal expenses that increase or otherwise occur independently of changes in sales or payrolls of businesses we insure.

Net income in 2019 increased \$1.710 billion, compared with 2018, primarily due to a \$1.621 billion increase for 2019 in net investment gains after taxes and a \$122 million increase in property casualty underwriting income after taxes.

As discussed in Investments Results, we reported a net investment gain in 2020, primarily due to an \$841 million net favorable change in fair value for equity securities still held. In 2019, we reported a net investment gain, including \$1.626 billion from a net favorable change in fair value for equity securities still held. For 2018, we reported a net investment loss, primarily due to unfavorable changes in fair values of equity securities, even though we continued to hold the securities.

Contribution from Insurance Operations

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Consolidated property casualty data:					
Net written premiums	\$ 5,864	\$ 5,516	\$ 5,030	6	10
Earned premiums	5,691	5,334	4,920	7	8
Underwriting profit	119	341	186	(65)	83
				Pt. Change	Pt. Change
GAAP combined ratio	98.1 %	93.8 %	96.4 %	4.3	(2.6)
Statutory combined ratio	96.7	93.4	96.0	3.3	(2.6)
Written premium to statutory surplus	1.0	1.0	1.0	0.0	0.0

Property casualty net written premiums grew 6% and earned premiums grew 7% in 2020, reflecting average renewal price increases and premium growth initiatives. The 2020 growth rate for net written premiums slowed and was 4 percentage points less than in 2019, reflecting the COVID-19 pandemic and related economic effects. Included in the 2019 growth rate was a contribution of 3 percentage points from Cincinnati Global. Trends and related factors are discussed in Commercial Lines, Personal Lines and Excess and Surplus Lines Insurance Results, respectively.

We completed our transaction to acquire Cincinnati Global, a London-based global specialty underwriter for Lloyd's Syndicate 318, on February 28, 2019. We expect the transaction to contribute to future earnings and book value growth as we believe it should provide opportunities to support business produced by our independent agencies in new geographies and lines of business.

Our property casualty insurance operations generated an underwriting profit for each of the three years ending in 2020. The \$222 million decrease in 2020, compared with 2019, included a \$370 million increase in losses from catastrophe events and \$121 million less benefit from net favorable reserve development on prior accident years before catastrophe losses. The \$155 million improvement in 2019, compared with 2018, included a \$25 million decrease in losses from natural catastrophe events and \$69 million more benefit from net favorable reserve development on prior accident years before catastrophe losses.

We measure property casualty underwriting profitability primarily by the combined ratio. Our combined ratio measures the percentage of each earned premium dollar spent on claims plus all expenses related to our property casualty operations, all on a pretax basis. A lower ratio indicates more favorable results and better underlying performance. A ratio below 100% represents an underwriting profit. Initiatives to improve our combined ratio are discussed in Item 1, Our Business and Our Strategy, Strategic Initiatives. In 2020, 2019 and 2018, favorable development on reserves for claims that occurred in prior accident years helped offset other incurred losses and loss expenses. Reserve development is discussed further in Property Casualty Loss and Loss Expense Obligations and Reserves. Losses from weather-related catastrophes are another important item influencing the combined ratio and are discussed along with other factors in Financial Results for our property casualty business and related segments.

Our life insurance segment reported profit of \$11 million in 2020 and \$1 million in 2019. We discuss results for the segment in Life Insurance Results. Most of this segment's investment income is included in our investments segment results. In addition to investment income, investment gains from the life insurance investment portfolio are also included in our investments segment results.

Strategic Initiatives Overview

Management has worked to identify a strategy that can lead to long-term success, with concurrence by the board of directors. Our strategy is intended to position us to compete successfully in the markets we have targeted while appropriately managing risk. We discuss our long-term, proven strategy in Item 1, Our Business and Our Strategy. We believe successful implementation of initiatives that support our strategy will help us better serve our agent customers and reduce volatility in our financial results while we also grow earnings and book value over the long term, successfully navigating challenging economic, market or industry pricing cycles.

Manage insurance profitability – Implementation of these initiatives is intended to enhance underwriting expertise and knowledge, thereby increasing our ability to manage our business while also gaining efficiency. Better profit margins can arise from additional information and more focused action on underperforming product lines, plus pricing capabilities we are expanding through the use of technology and analytics. In addition to enhancing company efficiency, improving internal processes also supports the ability of the independent agencies that represent us to grow profitably by allowing them to serve clients faster and to more efficiently manage agency expenses.

Drive premium growth – Implementation of these initiatives is intended to further penetrate each market we serve through our appointed independent agencies. Strategies aimed at specific market opportunities, along with service enhancements, can help our agents grow and increase our share of their business. Premium growth initiatives also include expansion of Cincinnati Re and Cincinnati Global. Diversified growth also may reduce variability of losses from weather-related catastrophes.

Detailed discussion of recent-year financial performance influenced by our strategic initiatives appears below in Financial Results and Liquidity and Capital Resources.

Factors Influencing Our Future Performance

Our view of the shareholder value we can create over the next five years relies largely on three assumptions – each highly dependent on the external environment. First, we anticipate our property casualty average insurance prices will increase in proportion to, or in excess of, our loss cost trends. Second, we assume that the economy can maintain a long-term growth track. Third, we assume that valuations of our marketable securities will vary within a typical range over time, based on historical trends. If those assumptions prove to be inaccurate, we may not be able to achieve our performance targets even if we accomplish our strategic objectives.

Other factors that could influence our ability to achieve our targets include:

We expect the insurance marketplace to remain competitive, which is likely to cause carriers to pursue strategies that they believe could lead to economies of scale, market share gains or the potential for an improved competitive posture.

We expect the independent insurance agency system to remain strong, with continued agency consolidation. If soft insurance market conditions return in the near term, it will create additional risk for agencies.

A return of soft insurance market pricing could significantly affect growth rates and earned premium levels for some time into the future. If the economy falters, we may experience low or no premium growth for our property casualty segments. Premium growth also may lag as some of our growth initiatives require more time to reach their full contribution. In addition, economic factors, including inflation, may increase our claims and settlement expenses related to medical care, litigation and construction.

Financial markets continued to display volatility in recent years, and some predict more turbulence in the future from effects such as changes in government policy, growth challenges for emerging country economies or other geopolitical events that could also affect the U.S. economy and markets. Should financial markets decline temporarily, which could occur as part of typical market volatility patterns, the related book value component of our value creation ratio could also register a weak or negative result.

We discuss in Item 1A, Risk Factors, many potential risks to our business and our ability to achieve our qualitative and quantitative objectives. These are real risks, but their probability of occurring may not be high. We also believe that our risk management programs generally could mitigate some of their potential effects, in the event they would occur.

Critical Accounting Estimates

Cincinnati Financial Corporation's financial statements are prepared using U.S. GAAP. These principles require management to make estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying Notes. Actual results could differ materially from those estimates.

The significant accounting policies used in the preparation of the financial statements are discussed in Item 8, Note 1 of the Consolidated Financial Statements. In conjunction with that discussion, material implications of uncertainties associated with the methods, assumptions and estimates underlying the company's critical accounting policies are discussed below. The audit committee of the board of directors reviews the annual financial statements with management and the independent registered public accounting firm. These discussions cover the quality of earnings, review of reserves and accruals, reconsideration of the suitability of accounting principles, review of highly judgmental areas including critical accounting estimates, audit adjustments and such other inquiries as may be appropriate.

Property Casualty Insurance Loss and Loss Expense Reserves

We establish loss and loss expense reserves for our property casualty insurance business as balance sheet liabilities. Unpaid loss and loss expenses are the estimated amounts necessary to pay for and settle all outstanding insured claims, including incurred but not reported (IBNR) claims. These reserves account for unpaid loss and loss expenses as of a financial statement date.

For some lines of business that we write, a considerable and uncertain amount of time can elapse between the occurrence, reporting and payment of insured claims. The amount we will actually have to pay for such claims also can be highly uncertain. This uncertainty, together with the size of our reserves, makes the loss and loss expense reserves our most significant estimate. Gross loss and loss expense reserves were \$6.677 billion at year-end 2020 compared with \$6.088 billion at year-end 2019.

How Reserves Are Established

Our field claims representatives establish case reserves when claims are reported to the company to provide for our unpaid loss and loss expense obligation associated with known claims. Field claims managers supervise and review all claims with case reserves less than \$100,000. Additionally, a headquarters supervisor and regional claims manager review all claims under \$100,000 if litigation or a certain specialty claim is involved. All claims with case reserves of \$100,000 or greater are reviewed and approved by experienced headquarters supervisors and regional claims managers. Upper-level headquarters claims managers also review case reserves of \$175,000 or more.

Our claims representatives base their case reserve estimates primarily upon case-by-case evaluations that consider:

- type of claim involved
- circumstances surrounding each claim
- policy provisions pertaining to each claim
- potential for subrogation or salvage recoverable
- general insurance reserving practices

Case reserves of all sizes are subject to review on a 90-day cycle, or more frequently if new information about a loss becomes available. As part of the review process, we monitor industry trends, cost trends, relevant court cases, legislative activity and other current events in an effort to ascertain new or additional loss exposures.

We also establish IBNR reserves to provide for all unpaid loss and loss expenses not accounted for by case reserves:

For events designated as natural catastrophes resulting in losses incurred related to premiums written on a direct basis by The Cincinnati Insurance Companies, we calculate IBNR reserves directly as a result of an estimated IBNR claim count and an estimated average claim amount for each event. Once case reserves are established for a catastrophe event, we reduce the IBNR reserves. Our claims department management coordinates the assessment of these events and prepares the related IBNR reserve estimates. Such an assessment involves a comprehensive analysis of the nature of the event, of policyholder exposures within the affected geographic area and of available claims intelligence. Depending on the nature of the event, available claims intelligence could include surveys of field claims associates within the affected geographic area, feedback from a catastrophe claims team sent into the area, as well as data on claims reported as of the financial statement date.

To determine whether an event is designated as a catastrophe, related to premiums written on a direct basis by The Cincinnati Insurance Companies, we generally use the catastrophe definition provided by Property Claims Service (PCS), a division of Insurance Services Office. PCS defines a catastrophe as an event that causes U.S., Puerto Rico and U.S. Virgin Islands damage of \$25 million or more in insured property losses and affects a significant number of policyholders and insureds.

For events designated as natural catastrophes resulting in losses for Cincinnati Re and Cincinnati Global, we begin with a review of in-force policies, treaties and related limits likely to be affected by each event. For both Cincinnati Re and Cincinnati Global, use of information from third-party catastrophe models, industry estimates, and our own proprietary adjustments are utilized for the estimate of ultimate losses for each catastrophe event. Incurred losses from catastrophe events for both Cincinnati Re and Cincinnati Global can be designated catastrophes by PCS, or deemed as a catastrophe by the international insurance industry or, for Cincinnati Re, as reported by ceding companies. IBNR reserves are calculated as the difference between the estimate of the ultimate loss and loss expenses and the sum of total loss and loss expense payments and total case reserves.

For asbestos and environmental claims, we calculate IBNR reserves by deriving an actuarially-based estimate of total unpaid loss and loss expenses. We then reduce the estimate by total case reserves. We discuss the reserve analysis that applies to asbestos and environmental reserves in Liquidity and Capital Resources, Asbestos and Environmental Loss and Loss Expense Reserves.

For loss expenses that pertain primarily to salaries and other costs related to our claims department associates, also referred to as adjusting and other expense or AOE, we calculate reserves based on an analysis of the relationship between paid losses and paid AOE. Reserves for AOE are allocated to company, line of business and accident year based on a claim count algorithm. Claim counts reported and used in the reserving process are primarily measured by insurance coverages that are triggered when a loss occurs and a reserve is established. Coverages are defined as unique combinations of certain attributes such as line of business and cause of loss. Claims that are opened and closed without payment are included in the reported claim counts. Claim counts are presented on a direct basis only and do not reflect any assumed or ceded reinsurance.

For all other claims and events, including reinsurance assumed or ceded, IBNR reserves are calculated as the difference between an actuarial estimate of the ultimate cost of total loss and loss expenses incurred reduced by the sum of total loss and loss expense payments and total case reserves estimated for individual claims. Reserve amounts for those other claims and events are significant, and represent the majority of amounts shown as IBNR reserves and loss expense reserves in the table included in Liquidity and Capital Resources, Property Casualty Loss and Loss Expense Obligations and Reserves. We discuss below the development of actuarially based estimates of the ultimate cost of total loss and loss expenses incurred.

Our actuarial staff applies significant judgment in selecting models and estimating model parameters when preparing reserve analyses. Unpaid loss and loss expenses are inherently uncertain as to timing and amount. Uncertainties relating to model appropriateness, parameter estimates and actual loss and loss expense amounts are referred to as model, parameter and process uncertainty, respectively. Our management and actuarial staff address these uncertainties in the reserving process in a variety of ways.

Our actuarial staff bases its IBNR reserve estimates for these losses primarily on the indications of methods and models that analyze accident year data. Accident year is the year in which an insured claim, loss or loss expense occurred. The specific methods and models that our actuaries have used for the past several years are:

- paid and reported loss development methods
- paid and reported loss Bornhuetter-Ferguson methods
- individual and multiple probabilistic trend family models

Our actuarial staff uses diagnostics provided by stochastic reserving software to evaluate the appropriateness of the models and methods listed above. The software's diagnostics have indicated that the appropriateness of these models and methods for estimating IBNR reserves for our lines of business tends to depend on a line's tail. Tail refers to the time interval between a typical claim's occurrence and its settlement. For our long-tail lines such as workers' compensation, commercial casualty and certain other liability lines, models from the probabilistic trend family tend to provide superior fits and to validate well, compared with models underlying the loss development and Bornhuetter-Ferguson methods. The loss development and Bornhuetter-Ferguson methods, particularly the reported loss variations, tend to produce the more appropriate IBNR reserve estimates for our short-tail lines such as homeowner and commercial property. For our mid-tail lines such as personal and commercial auto liability, all models and methods provide useful insights.

Our actuarial staff also devotes significant time and effort to the estimation of model and method parameters. The loss development and Bornhuetter-Ferguson methods require the estimation of numerous loss development factors. The Bornhuetter-Ferguson methods also involve the estimation of numerous expected loss ratios by accident year. Models from the probabilistic trend family require the estimation of development trends, calendar year inflation trends and exposure levels. Consequently, our actuarial staff monitors a number of trends and measures to gain key business insights necessary for exercising appropriate judgment when estimating the parameters mentioned, such as:

- company and industry pricing
- company and industry exposure
- company and industry loss frequency and severity
- past large loss events
- company and industry premium
- company in-force policy count

These trends and measures also support the estimation of expected accident year loss ratios needed for applying the Bornhuetter-Ferguson methods and for assessing the reasonability of all IBNR reserve estimates computed. Our actuarial staff reviews these trends and measures quarterly, updating parameters derived from them as necessary.

Quarterly, our actuarial staff summarizes their reserve analysis by preparing an actuarial best estimate and a range of reasonable IBNR reserves intended to reflect the uncertainty of the estimate. An inter-departmental committee that includes our actuarial management team reviews the results of each quarterly reserve analysis. The committee establishes management's best estimate of IBNR reserves, which is the amount that is included in each period's financial statements. In addition to the information provided by actuarial staff, the committee also considers factors such as:

- large loss activity and trends in large losses
- new business activity
- judicial decisions
- general economic trends such as inflation
- trends in litigiousness and legal expenses
- product and underwriting changes
- changes in claims practices

The determination of management's best estimate, like the preparation of the reserve analysis that supports it, involves considerable judgment. Changes in reserving data or the trends and factors that influence reserving data may signal fundamental shifts or may simply reflect single-period anomalies. Even if a change reflects a fundamental shift, the full extent of the change may not become evident until years later. Moreover, since our methods and models do not explicitly relate many of the factors we consider directly to reserve levels, we typically cannot quantify the precise impact of such factors on the adequacy of reserves prospectively or retrospectively.

Due to the uncertainties described above, our ultimate loss experience could prove better or worse than our carried reserves reflect. To the extent that reserves are inadequate and increased, the amount of the increase is a charge in the period that the deficiency is recognized, raising our loss and loss expense ratio and reducing earnings. To the extent that reserves are redundant and released, the amount of the release is a credit in the period that the redundancy is recognized, reducing our loss and loss expense ratio and increasing earnings.

Key Assumptions – Loss Reserving

Our actuarial staff makes a number of key assumptions when using their methods and models to derive IBNR reserve estimates. Appropriate reliance on these key assumptions essentially entails determinations of the likelihood that statistically significant patterns in historical data may extend into the future. The four most significant of the key assumptions used by our actuarial staff and approved by management are:

Emergence of loss and defense and cost containment expenses, also referred to as DCCE, on an accident year basis. Historical paid loss, reported loss and paid DCCE data for the business lines we analyze contain patterns that reflect how unpaid losses, unreported losses and unpaid DCCE as of a financial statement date will emerge in the future. Unless our actuarial staff or management identifies reasons or factors that invalidate the extension of historical patterns into the future, these patterns can be used to make projections necessary for estimating IBNR reserves. Our actuaries significantly rely on this assumption in the application of all methods and models mentioned above.

Calendar year inflation. For long-tail and mid-tail business lines, calendar year inflation trends for future paid losses and paid DCCE do not vary significantly from a stable, long-term average. Our actuaries base reserve estimates derived from probabilistic trend family models on this assumption.

Exposure levels. Historical earned premiums, when adjusted to reflect common levels of product pricing and loss cost inflation, can serve as a proxy for historical exposures. Our actuaries require this assumption to estimate expected loss ratios and expected DCCE ratios used by the Bornhuetter-Ferguson reserving methods. They may also use this assumption to establish exposure levels for recent accident years, characterized by "green" or immature data, when working with probabilistic trend family models.

Claims having atypical emergence patterns. Characteristics of certain subsets of claims, such as high frequency, high severity, or mass tort claims, have the potential to distort patterns contained in historical paid loss, reported loss and paid DCCE data. When testing indicates this to be the case for a particular subset of claims, our actuaries segregate these claims from the data and analyze them separately. Subsets of claims that could fall into this category include hurricane claims or claims for other weather events where total losses we incurred were very large, individual large claims and asbestos and environmental claims.

These key assumptions have not changed since 2005, when our actuarial staff began using probabilistic trend family models to estimate IBNR reserves.

Paid losses, reported losses and paid DCCE are subject to random as well as systematic influences. As a result, actual paid losses, reported losses and paid DCCE are virtually certain to differ from projections. Such differences are consistent with what specific models for our business lines predict and with the related patterns in the historical data used to develop these models. As a result, management does not closely monitor statistically insignificant differences between actual and projected data.

Reserve Estimate Variability

Management believes that the standard error of a reserve estimate, a measure of the estimate's variability, provides the most appropriate measure of the estimate's sensitivity. The reserves we establish depend on the models we use and the related parameters we estimate in the course of conducting reserve analyses. However, the actual amount required to settle all outstanding insured claims, including IBNR claims, as of a financial statement date depends on stochastic, or random, elements as well as the systematic elements captured by our models and estimated model parameters. For the lines of business we write, process uncertainty – the inherent variability of loss and loss expense payments – typically contributes more to the imprecision of a reserve estimate than parameter uncertainty.

Consequently, a sensitivity measure that ignores process uncertainty would provide an incomplete picture of the reserve estimate's sensitivity. Since a reserve estimate's standard error accounts for both process and parameter uncertainty, it reflects the estimate's full sensitivity to a range of reasonably likely scenarios.

The table below provides standard errors and reserve ranges by major property casualty lines of business and in total for net loss and loss expense reserves as well as the potential effects on our net income, assuming a 21% federal tax rate. Standard errors and reserve ranges for assorted groupings of these lines of business cannot be computed by simply adding the standard errors and reserve ranges of the component lines of business, since such an approach would ignore the effects of product diversification. See Liquidity and Capital Resources, Property Casualty Loss and Loss Expense Obligations and Reserves, Range of Reasonable Reserves, for more details on our total reserve range. While the table reflects our assessment of the most likely range within which each line's actual unpaid loss and loss expenses may fall, one or more lines' actual unpaid loss and loss expenses could nonetheless fall outside of the indicated ranges.

	Net loss and loss expense range of reserves				
	Carried reserves	Low point	High point	Standard error	Net income effect
At December 31, 2020					
Total	\$ 6,400	\$ 5,859	\$ 6,543	\$ 342	\$ 270
Commercial casualty	\$ 2,348	\$ 2,029	\$ 2,518	\$ 245	\$ 194
Commercial property	468	381	476	48	38
Commercial auto	736	694	767	37	29
Workers' compensation	964	803	979	88	70
Personal auto	298	280	316	18	14
Homeowners	236	219	253	17	13

Life Policy and Investment Contract Reserves

We establish the reserves for traditional life insurance policies based on expected expenses, mortality, morbidity, withdrawal rates and investment yields, including a provision for uncertainty. Once these assumptions are established, they generally are maintained throughout the lives of the contracts. We use both our own experience and industry experience adjusted for historical trends in arriving at our assumptions for expected mortality and morbidity. We use our own experience and historical trends for setting our assumptions for expected withdrawal rates and expenses. We base our assumptions for expected investment income on our own experience adjusted for current and future expected economic conditions.

We establish reserves for our universal life, deferred annuity and investment contracts equal to the cumulative account balances, which include premium deposits plus credited interest less charges and withdrawals. Some of our universal life insurance policies contain no-lapse guarantee provisions. For these policies, we establish a reserve in addition to the account balance based on expected no-lapse guarantee benefits and expected policy assessments.

Asset Impairment

Our investment portfolio is our largest asset. We monitor the fixed-maturity portfolio and all other assets for signs of credit-related or other impairment. We monitor decreases in the fair value of invested assets and the need for an allowance for credit losses for our fixed-maturity portfolio; allowances for expected credit losses on receivable and recoverable assets considering past events, current conditions and reasonable and supportable forecasts; an accumulation of company costs in excess of the amount originally expected to acquire or construct an asset; or other factors such as bankruptcy, deterioration of creditworthiness, failure to pay interest; and changes in legal factors or in the business climate.

The application of our invested assets impairment policy resulted in write-downs of impaired securities intended to be sold that reduced our income before income taxes by \$78 million in 2020, and other-than-temporary impairment (OTTI) charges of \$9 million in 2019 and \$5 million in 2018. Write-downs and OTTI losses represent noncash charges to income and are reported as investment losses. The application of our non-invested assets impairment policy did not have a material effect on our financial condition and included a pandemic-related allowance for credit losses for uncollectible premiums of \$8 million.

Our internal investment portfolio managers monitor their assigned portfolios. If a fixed-maturity security is valued below amortized cost, the portfolio managers undertake additional reviews. Such declines often occur in conjunction with events taking place in the overall economy and market, combined with events specific to the industry or operations of the issuing organization. Managers review quantitative measurements such as a declining trend in fair value and the extent of the fair value decline, as well as qualitative measures such as pending events, credit ratings and issuer liquidity. We are even more proactive when these declines in valuation are greater than might be anticipated when viewed in the context of overall economic and market conditions. We provide detailed information about fixed-maturity securities fair valued in a continuous loss position at year-end 2020 in Item 7A, Quantitative and Qualitative Disclosures About Market Risk.

An available for sale fixed maturity is impaired if the fair value of the security is below amortized cost. The impaired loss is charged to net income when we have the intent to sell the security or it is more likely than not we will be required to sell the security before recovery of the amortized cost. For impaired securities we intend to hold, an allowance for credit related losses is recorded in investment losses when the company determines a credit loss has been incurred based on certain factors such as adverse conditions, credit rating downgrades or failure of the issuer to make scheduled principal or interest payments. A credit loss is determined using a discounted cash flow analysis by comparing the present value of expected cash flows with the amortized cost basis, limited to the difference between fair value and amortized cost. Noncredit losses are recognized in other comprehensive income as a change in unrealized gains and losses on investments. We provide information about valuations of our invested assets in Item 8, Note 2 of the Consolidated Financial Statements.

Fair Value Measurements

Valuation of Financial Instruments

Fair value is defined as the exit price or the amount that would be (1) received to sell an asset or (2) paid to transfer a liability in an orderly transaction between marketplace participants at the measurement date. When determining an exit price, we must, whenever possible, rely upon observable market data.

We have categorized our financial instruments, based on the priority of the inputs to the valuation technique, into a three-level fair value hierarchy. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure the financial instruments fall within different levels of the hierarchy, the categorization is based on the lowest level that is significant to the fair value measurement of the instrument. While we consider pricing data from outside services, we ultimately determine whether the data or inputs used by these outside services are observable or unobservable.

Financial assets and liabilities recorded in the Consolidated Balance Sheets are categorized based on the inputs to the valuation techniques as described in Item 8, Note 3 of the Consolidated Financial Statements.

Level 1 and Level 2 Valuation Techniques

Substantially all of the \$21.194 billion of securities in our investment portfolio at year-end 2020, measured at fair value, are classified as Level 1 or Level 2. Financial assets that fall within Level 1 and Level 2 are priced according to observable data from identical or similar securities that have traded in the marketplace. Also within Level 2 are securities that are valued by outside services or brokers where we have evaluated and verified the pricing methodology and determined that the inputs are observable.

Deferred Policy Acquisition Costs

We establish a deferred asset for expenses associated with successfully acquiring property casualty and life insurance policies, primarily commissions, premium taxes and underwriting costs. Underlying assumptions are updated periodically to reflect actual experience, and we evaluate our deferred acquisition cost recoverability.

For property casualty insurance policies, deferred acquisition costs are amortized over the terms of the policies. These costs are principally agent commissions, premium taxes and certain underwriting costs related to successful contract acquisition, which are deferred and amortized into net income as premiums are earned. We assess recoverability of deferred acquisition costs at a level consistent with the way we acquire, service and manage insurance policies and measure profitability. Deferred acquisition costs track with the change in premiums.

For life insurance policies, acquisition costs are amortized into income in proportion to premium revenue, benefit base or in accordance with the recognition of gross profit from the contract, depending on the policy type. These costs are principally agent commissions and underwriting costs related to successful contract acquisition. We analyze our acquisition cost assumptions periodically to reflect actual experience; we evaluate our deferred acquisition costs for recoverability; and we regularly conduct reviews for potential premium deficiencies or loss recognition. Changes in the amounts or timing of estimated future profits could result in adjustments to the accumulated amortization of these costs.

Recent Accounting Pronouncements

Information about recent accounting pronouncements is provided in Item 8, Note 1 of the Consolidated Financial Statements.

Financial Results

Consolidated financial results primarily reflect the results of our five reporting segments. These segments are defined based on financial information we use to evaluate performance and to determine the allocation of assets.

- Commercial lines insurance
- Personal lines insurance
- Excess and surplus lines insurance
- Life insurance
- Investments

We report as Other the noninvestment operations of the parent company and its noninsurer subsidiary, CFC Investment Company. In addition, Other includes the financial results of our reinsurance assumed operations, known as Cincinnati Re, and our London-based global specialty underwriter known as Cincinnati Global.

We measure profit or loss for our commercial lines, personal lines, excess and surplus lines and life insurance segments based upon underwriting results (profit or loss), which represent net earned premium less loss and loss expenses, or contract holders' benefits incurred, and underwriting expenses on a pretax basis. We also evaluate results for our consolidated property casualty insurance operations. That is the total of our standard market segments (commercial lines and personal lines), our excess and surplus lines insurance segment, Cincinnati Re and Cincinnati Global. For analysis of our consolidated property casualty insurance results, it is important to include the earned premiums, loss and loss expenses and also underwriting expenses reported as Other. Underwriting results and segment pretax operating income are not substitutes for net income determined in accordance with GAAP.

For our consolidated property casualty insurance operations as well as the insurance segments, statutory accounting data and ratios are key performance indicators that we use to assess business trends and to make comparisons to industry results, since GAAP-based industry data generally is not as readily available.

Investments held by the parent company and the investment portfolios for the insurance subsidiaries are managed and reported as the investments segment, separate from our underwriting business. Net investment income and net investment gains and losses for our investment portfolios are discussed in the Investments Results.

The calculations of segment data are described in more detail in Item 8, Note 18, of the Consolidated Financial Statements. The following sections provide analysis and discussion of results of operations for each of the five segments.

Consolidated Property Casualty Insurance Results

Earned and net written premiums for our consolidated property casualty operations grew in 2020, reflecting average renewal price increases and strategic initiatives for targeted growth. A key measure of property casualty profitability is underwriting profit or loss. Our 2020 underwriting profit of \$119 million was \$222 million less than in 2019, including a \$370 million unfavorable effect from a higher amount of catastrophe losses, mostly caused by severe weather, and \$85 million of pandemic-related incurred losses and expenses. Pandemic-related amounts were discussed in more detail in Corporate Financial Highlights of Management's Discussion and Analysis. Prior accident year loss experience before catastrophes during 2020 was less favorable than in 2019, and represented \$121 million of the underwriting profit decrease from 2019. The various less favorable effects in 2020 offset improved profitability from factors such as higher pricing and our ongoing initiatives to improve pricing precision and loss experience related to claims and loss control practices. Underwriting profit trends are discussed further below.

The table below highlights property casualty results, with analysis and discussion in the sections that follow. That analysis and discussion includes sections by segment.

Overview – Three-Year Highlights

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Earned premiums	\$ 5,691	\$ 5,334	\$ 4,920	7	8
Fee revenues	9	11	11	(18)	0
Total revenues	5,700	5,345	4,931	7	8
Loss and loss expenses from:					
Current accident year before catastrophe losses	3,243	3,249	3,026	0	7
Current accident year catastrophe losses	725	351	364	107	(4)
Prior accident years before catastrophe losses	(98)	(219)	(150)	55	(46)
Prior accident years catastrophe losses	(33)	(29)	(17)	(14)	(71)
Loss and loss expenses	3,837	3,352	3,223	14	4
Underwriting expenses	1,744	1,652	1,522	6	9
Underwriting profit	\$ 119	\$ 341	\$ 186	(65)	83
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Current accident year before catastrophe losses	57.0 %	60.9 %	61.5 %	(3.9)	(0.6)
Current accident year catastrophe losses	12.7	6.6	7.4	6.1	(0.8)
Prior accident years before catastrophe losses	(1.7)	(4.1)	(3.1)	2.4	(1.0)
Prior accident years catastrophe losses	(0.6)	(0.6)	(0.3)	0.0	(0.3)
Loss and loss expenses	67.4	62.8	65.5	4.6	(2.7)
Underwriting expenses	30.7	31.0	30.9	(0.3)	0.1
Combined ratio	98.1 %	93.8 %	96.4 %	4.3	(2.6)
Combined ratio:	98.1 %	93.8 %	96.4 %	4.3	(2.6)
Contribution from catastrophe losses and prior years reserve development	10.4	1.9	4.0	8.5	(2.1)
Combined ratio before catastrophe losses and prior years reserve development	87.7 %	91.9 %	92.4 %	(4.2)	(0.5)

The COVID-19 pandemic and related economic effects slowed the rate of our premium growth in 2020. Consolidated property casualty net written premiums grew 6% in the second quarter, 3% in the third quarter and 7% in the fourth quarter, following growth of 10% for both the first quarter of 2020 and full-year 2019. In addition to reduced insured exposure levels that affected some lines of business, commercial lines new business written premiums for the last three quarters of 2020 decreased compared with the same periods a year ago, and contributed to the slowed growth in net written premiums.

For policies that renewed during 2020, higher average pricing offset some of the factors that slowed premium growth. Regardless of future policy submission volume and pricing changes, new business and renewal premium amounts could decline if the exposure basis for policy premiums, such as sales and payrolls of businesses we insure, decrease as a result of a weakened economy.

Loss experience for our insurance operations is influenced by many factors as discussed in further detail in Financial Results by property casualty insurance segment. Consolidated property casualty paid losses before catastrophe effects for 2020 decreased by 12% compared with 2019. We believe some of the decrease in those paid losses is due to slower business activity during the pandemic for some businesses we insure, or other pandemic-related factors such as less miles driven for insured vehicles. The commercial lines insurance segment decreased by 12% and the personal lines insurance segment decreased by 18%. As a ratio to earned premiums, consolidated property casualty 2020 paid losses before catastrophe effects were 7.8 percentage points lower than the same period a year ago, but were largely offset by the change in loss reserves that increased by 5.4 points. For future periods, factors that reduce exposure to certain insurance losses, such as fewer vehicular miles driven or reduced sales and payrolls for businesses, could cause a reduction in future losses that generally correspond to reduced premiums. However, there could be losses or legal expenses that occur independent of changes in mileage, sales or payrolls of businesses we insure.

Performance highlights for consolidated property casualty operations also included:

Premiums – Agency renewal written premiums rose \$221 million in 2020 and continued to contribute to growth in earned premiums and net written premiums that rose in each of our property casualty segments. The renewal premium increase was largely due to average renewal price increases. Price increases with enhanced precision continue to benefit operating results.

New business written premiums produced through agencies increased \$21 million in 2020, compared with 2019. Agents appointed during 2020 or 2019 produced a 2020 increase in standard lines new business of \$52 million. Growth initiatives also favorably affect growth in subsequent years, particularly as newer agency relationships mature over time.

Expansion of Cincinnati Re produced \$302 million of 2020 net written premiums and contributed \$74 million of the growth in other written premiums, compared with 2019. Cincinnati Re assumes risks through reinsurance treaties and in some cases cedes part of the risk and related premiums to one or more unaffiliated reinsurance companies through transactions known as retrocessions. In 2020, earned premiums for Cincinnati Re totaled \$259 million.

Cincinnati Global also contributed to the increase in other written premiums, following our acquisition of it on February 28, 2019. Net written premiums were \$177 million in 2020, and contributed \$37 million of the growth in other written premiums, compared with 2019. In 2020, earned premiums for Cincinnati Global totaled \$168 million.

Other written premiums also include premiums ceded to reinsurers as part of our ceded reinsurance program. An increase in ceded premiums, other than Cincinnati Re and Cincinnati Global premiums, reduced net written premium growth by \$1 million in 2020.

The table below analyzes premium revenue components and trends.

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Agency renewal written premiums	\$ 4,740	\$ 4,519	\$ 4,358	5	4
Agency new business written premiums	799	778	652	3	19
Other written premiums	325	219	20	48	nm
Net written premiums	5,864	5,516	5,030	6	10
Unearned premium change	(173)	(182)	(110)	5	(65)
Earned premiums	\$ 5,691	\$ 5,334	\$ 4,920	7	8

Combined ratio – The combined ratio increased by 4.3 percentage points in 2020, compared with 2019, including a 6.1 percentage-point increase in the ratio for catastrophe losses and a 1.5 point increase from pandemic-related incurred losses and expenses. The 2020 ratio for current accident year losses and loss expenses before catastrophes improved by 3.9 percentage points, reflecting lower paid losses discussed above, a decrease in commercial lines large losses for new losses above \$1 million described below, and what we believe are improvements to some of our loss experience due to recent-year initiatives to improve pricing precision and claims and loss control practices. The remainder of the 2020 combined ratio increase included 2.4 percentage

points less benefit in the ratio for prior accident year losses and loss expenses before catastrophes. We further discuss ratios related to reserve development in the sections that follow the Catastrophe Losses Incurred table below.

Our statutory combined ratio was 96.7% in 2020 compared with 93.4% in 2019 and 96.0% in 2018. The estimated statutory combined ratio for the property casualty industry, with the industry's ratio excluding its mortgage and financial guaranty lines of business, was 99.3% in 2020, 99.2% in 2019 and 99.6% in 2018. The contribution of catastrophe losses to our statutory combined ratio was 11.2 percentage points in 2020, 6.0 percentage points in 2019 and 7.1 percentage points in 2018, compared with industry estimates of 7.5, 4.1 and 5.7 percentage points, respectively. Components of the combined ratio are discussed below.

Catastrophe loss trends are an important factor in assessing trends for overall underwriting results. Our 10-year historical annual average contribution of catastrophe losses to the combined ratio was 7.6 percentage points at December 31, 2020. Our five-year average was 8.1 percentage points.

Effective June 1, 2020, we restructured and renewed our combined property catastrophe occurrence excess of loss treaty for a period of one year. The treaty provides coverage for various combinations of occurrences, has an aggregate limit of \$50 million in excess of \$150 million per loss and applies to business written on a direct basis and by Cincinnati Re. Cincinnati Global catastrophe losses are not applicable to the treaty. Cincinnati Re purchases additional reinsurance coverages with various triggers and unique features. As of June 1, 2020, Cincinnati Re had separate property catastrophe excess of loss coverage with a total available aggregate limit of \$30 million.

There was no recovery from reinsurers for losses during 2020 pertaining to the treaty effective June 1, 2020. There was no recovery from reinsurers for losses during 2020 or 2019 pertaining to the treaty effective July 1, 2019. For the treaty effective in July 2018, the aggregate recovery from reinsurers totaled \$14 million for incurred losses in 2019, after considering all applicable deductibles, due to adverse reserve development in our personal lines insurance segment from a California wildfire event that occurred during 2018, exhausting the \$50 million aggregate limit. During 2018, the aggregate recovery from reinsurers providing coverage totaled \$36 million, which was applied to two California wildfire events, including \$21 million for Cincinnati Re.

The following table shows catastrophe losses incurred for the past two calendar years, net of reinsurance, as well as the effect of loss development on prior period catastrophe reserves. We individually list declared catastrophe events for which our incurred losses reached or exceeded \$10 million.

Catastrophe Losses Incurred

(Dollars in millions, net of reinsurance)

Dates	Events	Regions	Commercial lines	Personal lines	Excess and surplus lines	Other	Total
2020							
Jan. 10-12	Flood, hail, wind	Midwest, Northeast, South	\$ 6	\$ 4	\$ —	\$ —	\$ 10
Feb. 5-8	Flood, hail, wind	Northeast, South	9	5	—	—	14
Mar. 2-4	Flood, hail, wind	Midwest, South	58	8	—	5	71
Mar. 27-30	Flood, hail, wind	Midwest, Northeast, South	21	14	—	—	35
Apr. 7-9	Flood, hail, wind	Midwest, Northeast, South	29	29	—	—	58
Apr. 10-14	Flood, hail, wind	Midwest, Northeast, South	22	27	—	1	50
May 4-5	Flood, hail, wind	Midwest, South	22	5	—	—	27
May 26 - Jun. 8	Civil unrest	Midwest, Northeast, South, West	16	—	1	5	22
Jul. 10-12	Flood, hail, wind	Midwest, South	15	13	—	—	28
Jul. 30 - Aug. 5	Flood, hail, wind	International, South, Northeast	6	19	—	1	26
Aug. 8-11	Flood, hail, wind	Midwest	84	20	1	—	105
Aug. 26-28	Flood, hail, wind	South (Laura)	2	2	—	41	45
Sep. 7-16	Wildfire	West	9	4	—	—	13
Sep. 14-18	Flood, hail, wind	South (Sally)	8	4	—	25	37
Oct. 9-12	Flood, hail, wind	South (Delta)	—	1	—	14	15
Oct. 28-29	Flood, hail, wind	South (Zeta)	7	15	—	9	31
Nov. 15-16	Flood, hail, wind	Midwest, Northeast, South	4	6	—	—	10
Dec. 25	Explosion	South	20	—	—	—	20
All other 2020 catastrophes			38	57	3	10	108
Development on 2019 and prior catastrophes			(14)	(8)	—	(11)	(33)
Calendar year incurred total			<u>\$ 362</u>	<u>\$ 225</u>	<u>\$ 5</u>	<u>\$ 100</u>	<u>\$ 692</u>
2019							
Jan. 29 - Feb. 1	Flood, ice, snow, wind	Midwest, Northeast	\$ 9	\$ 10	\$ —	\$ —	\$ 19
Feb. 23-26	Flood, freezing, hail, ice, snow, wind	Midwest, Northeast, South	10	9	—	—	19
Mar. 12-17	Flood, hail, ice, snow, wind	Midwest, Northeast, West, South	4	4	—	4	12
May 16-17	Flood, hail, wind	Midwest	8	5	—	—	13
May 26 - 28	Flood, hail, wind	Midwest, Northeast, West, South	71	29	—	—	100
Aug. 4-5	Flood, hail, wind	Midwest	4	8	—	—	12
Aug. 10-11	Flood, hail, wind	West	22	1	—	—	23
Aug. 28 - Sep. 6	Flood, hail, wind	South, International (Dorian)	3	1	—	11	15
Oct. 7-20	Typhoon	International (Hagibis)	—	—	—	12	12
Oct. 20-21	Flood, hail, wind	Midwest, South	4	23	—	—	27
All other 2019 catastrophes			41	47	1	10	99
Development on 2018 and prior catastrophes			(25)	2	—	(6)	(29)
Calendar year incurred total			<u>\$ 151</u>	<u>\$ 139</u>	<u>\$ 1</u>	<u>\$ 31</u>	<u>\$ 322</u>

Consolidated Property Casualty Insurance Loss and Loss Expenses

Loss and loss expenses include both net paid losses and reserve changes for unpaid losses as well as the associated loss expenses. For all property casualty lines of business in aggregate, net loss and loss expense reserves at December 31, 2020, were \$654 million higher than at year-end 2019, including \$533 million for incurred but not reported (IBNR) reserves. The \$654 million reserve increase raised year-end 2019 net loss and loss expense reserves by 11%, compared with a 7% increase in 2020 earned premiums.

Most of the incurred losses and loss expenses shown in the consolidated property casualty insurance results three-year highlights table are for the respective current accident years, with reserve development on prior accident years shown separately. Since less than half of our consolidated property casualty current accident year incurred losses and loss expenses represents net paid amounts, the majority represents reserves for our estimate of ultimate losses and loss expenses. These reserves develop over time, and we re-estimate previously reported reserves as we learn more about the development of the related claims. The table below illustrates that development. For example, the 67.5% accident year 2019 loss and loss expense ratio reported as of December 31, 2019, developed favorably by 1.5 percentage points to 66.0% due to claims settling for less than previously estimated, or due to updated reserve estimates for unpaid claims, as of December 31, 2020. Accident years 2019 and 2018 have both developed favorably, as indicated by the progression over time for the ratios in the table.

(Dollars in millions)

Accident year loss and loss expenses incurred and ratios to earned premiums:

Accident year:	2020	2019	2018	2020	2019	2018
as of December 31, 2020	\$ 3,968	\$ 3,519	\$ 3,245	69.7 %	66.0 %	66.0 %
as of December 31, 2019		3,600	3,301		67.5	67.1
as of December 31, 2018			3,390			68.9

Catastrophe loss trends, discussed above, accounted for some of the movement in the current accident year loss and loss expense ratio for 2020, compared with 2019. Catastrophe losses added 12.7 percentage points in 2020, 6.6 points in 2019 and 7.4 points in 2018 to the respective consolidated property casualty current accident year loss and loss expense ratios in the table above.

The 57.0% ratio for current accident year loss and loss expenses before catastrophe losses for 2020 decreased 3.9 percentage points compared with the 60.9% accident year 2019 ratio measured as of December 31, 2019. Contributors to the decrease included a 0.6 percentage-point reduction in the ratio for current accident year losses of \$1 million or more per claim, shown in the table below, and lower paid losses discussed above.

Reserve development on prior accident years continued to net to a favorable amount in 2020, and was primarily due to less-than-anticipated loss emergence on known claims. We recognized \$131 million of favorable development in 2020, compared with \$248 million in 2019 and \$167 million in 2018. Of the \$117 million decrease in 2020, compared with 2019, \$62 million was attributable to our commercial casualty and workers' compensation lines of business. Approximately 83% of our net favorable reserve development on prior accident years recognized during 2020 occurred in our commercial casualty, workers' compensation and commercial property lines of business. In 2019, our commercial casualty, commercial property, workers' compensation and personal auto lines of business were responsible for approximately 83% of the favorable reserve development. As discussed in Liquidity and Capital Resources, Property Casualty Loss and Loss Expense Obligations and Reserves, Property Casualty Insurance Development of Estimated Reserves by Accident Year, commercial casualty and workers' compensation are considered long-tail lines with the potential for revisions inherent in estimating reserves. Favorable development recognized during 2018 was primarily from our commercial casualty, commercial property and workers' compensation lines of business. Development by accident year is further discussed in Liquidity and Capital Resources, Property Casualty Insurance Development of Estimated Reserves by Accident Year.

Consolidated Property Casualty Insurance Losses by Size

(Dollars in millions, net of reinsurance)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Current accident year losses greater than \$5,000,000	\$ 50	\$ 27	\$ 43	85	(37)
Current accident year losses \$1,000,000-\$5,000,000	202	243	218	(17)	11
Large loss prior accident year reserve development	42	50	69	(16)	(28)
Total large losses incurred	294	320	330	(8)	(3)
Losses incurred but not reported	310	50	110	nm	(55)
Other losses excluding catastrophe losses	1,909	2,118	1,886	(10)	12
Catastrophe losses	670	309	334	117	(7)
Total losses incurred	\$ 3,183	\$ 2,797	\$ 2,660	14	5
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Current accident year losses greater than \$5,000,000	0.9 %	0.5 %	0.9 %	0.4	(0.4)
Current accident year losses \$1,000,000-\$5,000,000	3.6	4.6	4.4	(1.0)	0.2
Large loss prior accident year reserve development	0.7	0.9	1.4	(0.2)	(0.5)
Total large loss ratio	5.2	6.0	6.7	(0.8)	(0.7)
Losses incurred but not reported	5.5	0.9	2.2	4.6	(1.3)
Other losses excluding catastrophe losses	33.4	39.7	38.4	(6.3)	1.3
Catastrophe losses	11.8	5.8	6.8	6.0	(1.0)
Total loss ratio	55.9 %	52.4 %	54.1 %	3.5	(1.7)

In 2020, total large losses incurred decreased by \$26 million, or 8%, net of reinsurance, primarily due to a decrease for our commercial lines insurance segment. The corresponding ratio decreased 0.8 percentage points. The large loss data included in the table above does not include Cincinnati Re and Cincinnati Global. Our analysis of large losses incurred indicated no unexpected concentration of these losses and reserve increases by geographic region, policy inception, agency or field marketing territory. We believe the inherent volatility of aggregate loss experience for our portfolio of larger policies is greater than that of our portfolio of smaller policies, and we continue to monitor the volatility in addition to general inflationary trends in loss costs.

Consolidated Property Casualty Insurance Underwriting Expenses

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Commission expenses	\$ 1,042	\$ 989	\$ 911	5	9
Other underwriting expenses	692	651	599	6	9
Policyholder dividends	10	12	12	(17)	0
Total underwriting expenses	<u>\$ 1,744</u>	<u>\$ 1,652</u>	<u>\$ 1,522</u>	<u>6</u>	<u>9</u>
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Commission expenses	18.3 %	18.6 %	18.5 %	(0.3)	0.1
Other underwriting expenses	12.2	12.2	12.1	0.0	0.1
Policyholder dividends	0.2	0.2	0.3	0.0	(0.1)
Total underwriting expense ratio	<u>30.7 %</u>	<u>31.0 %</u>	<u>30.9 %</u>	<u>(0.3)</u>	<u>0.1</u>

Consolidated property casualty commission expenses rose \$53 million, or 5%, in 2020, with profit-sharing commissions for agencies decreasing by \$10 million. The 2020 ratio of commission expenses as a percent of earned premiums decreased by 0.3 percentage points, compared with 2019. The 2020 ratio for other underwriting expenses matched 2019, as a Stay-at-Home policyholder credit for personal auto policies offset favorable effects such as a lower level of business travel spending for associates and earned premiums that rose at a slightly faster pace than other underwriting expenses. During 2020, we continued to carefully manage expenses while also making strategic investments that include enhancement of underwriting expertise.

Commission expenses include our profit-sharing commissions, which are primarily based on one-year and three-year profitability of an agency's business. The aggregate profit trend for agencies that earn these profit-based commissions can differ from the aggregate profit trend for all agencies reflected in our consolidated property casualty results.

Salaries, benefits and payroll taxes for our associates account for approximately half of our property casualty other underwriting expenses. Most of our associates either provide direct service to the property casualty portion of our agencies' businesses or provide support to those associates.

Discussions below of our property casualty insurance segments provide additional details about our results.

Commercial Lines Insurance Results

Overview – Three-Year Highlights

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Earned premiums	\$ 3,476	\$ 3,319	\$ 3,218	5	3
Fee revenues	3	5	5	(40)	0
Total revenues	3,479	3,324	3,223	5	3
Loss and loss expenses from:					
Current accident year before catastrophe losses	2,055	2,046	1,998	0	2
Current accident year catastrophe losses	376	176	208	114	(15)
Prior accident years before catastrophe losses	(81)	(167)	(136)	51	(23)
Prior accident years catastrophe losses	(14)	(25)	(21)	44	(19)
Loss and loss expenses	2,336	2,030	2,049	15	(1)
Underwriting expenses	1,079	1,053	1,023	2	3
Underwriting profit	\$ 64	\$ 241	\$ 151	(73)	60
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Current accident year before catastrophe losses	59.2 %	61.7 %	62.1 %	(2.5)	(0.4)
Current accident year catastrophe losses	10.8	5.3	6.5	5.5	(1.2)
Prior accident years before catastrophe losses	(2.3)	(5.0)	(4.2)	2.7	(0.8)
Prior accident years catastrophe losses	(0.4)	(0.8)	(0.7)	0.4	(0.1)
Loss and loss expenses	67.3	61.2	63.7	6.1	(2.5)
Underwriting expenses	31.0	31.7	31.7	(0.7)	0.0
Combined ratio	98.3 %	92.9 %	95.4 %	5.4	(2.5)
Combined ratio:	98.3 %	92.9 %	95.4 %	5.4	(2.5)
Contribution from catastrophe losses and prior years reserve development	8.1	(0.5)	1.6	8.6	(2.1)
Combined ratio before catastrophe losses and prior years reserve development	90.2 %	93.4 %	93.8 %	(3.2)	(0.4)

While earned premiums increased 5% in 2020, the COVID-19 pandemic and related economic effects slowed the pace of net written premium growth for our commercial lines insurance segment. Net written premiums grew 4%, compared with 2019. The rate of growth for several major lines of business was less in 2020, compared with the respective 2019 growth rate, including commercial property down 3 percentage points, commercial auto down 4 points and workers' compensation down by 5 points, while commercial casualty was up 2 percentage points. New business and renewal premium growth could continue to slow if the basis for policy premiums, such as sales and payrolls of businesses we insure, decrease as a result of a weakened economy.

Loss experience for our insurance operations is influenced by many factors, and higher catastrophe losses were the main driver of the 2020 increase in losses and loss expenses, compared with 2019. Pandemic-related amounts totaled approximately \$36 million and were discussed in more detail in Corporate Financial Highlights of Management's Discussion and Analysis. For 2020, loss experience before catastrophe effects for our commercial lines insurance segment continued to improve. The main contributor of the improvement was the ratio for accident year 2020 loss and loss expenses before catastrophe losses. The improvement was driven by our commercial casualty and commercial auto lines of business, while commercial property increased by 1.1 points and workers' compensation increased by 0.9 points. The unfavorable change for commercial property included 3.0 points for \$30 million of legal expenses for defense of business interruption claims, related to the pandemic, incurred during 2020. The unfavorable change for workers' compensation reflected average percentage price changes that have decreased in the mid-single-digit range in several recent quarters.

For future periods, factors that reduce exposure to certain insurance losses, such as fewer vehicular miles driven or reduced sales and payrolls for businesses, could cause a reduction in future losses that generally correspond to reduced premiums. However, there could be losses or legal expenses that occur independent of changes in mileage, sales or payrolls of businesses we insure.

Performance highlights for the commercial lines insurance segment also included:

Premiums – Earned premiums and net written premiums rose in 2020, including a \$124 million increase in renewal written premiums that continued to include higher average pricing. New business written premiums in 2020 increased \$5 million, or 1%, compared with 2019.

Combined ratio – The 2020 combined ratio increased by 5.4 percentage points compared with 2019, including a 5.9 percentage-point increase in the ratio component for catastrophe losses. Development on prior accident years' loss and loss expense reserves before catastrophes during 2020 was 2.7 percentage points less favorable than in 2019.

As discussed in Critical Accounting Estimates, Property Casualty Insurance Loss and Loss Expense Reserves, stable historical paid loss patterns are a key assumption used to make projections necessary for estimating IBNR reserves. During 2017, we observed paid losses or re-estimates of case reserves emerging at levels higher than expected for commercial casualty, our largest commercial line of business. Considering that new data at December 31, 2017, we estimated commercial casualty IBNR reserves for accident year 2017 at levels more likely to be adequate, and reported net adverse reserve development on prior accident years for calendar year 2017 for that line of business. For 2020, 2019 and 2018, commercial casualty reserve development on prior accident years was favorable, as discussed below. Our commercial casualty 2020 total loss and loss expense ratio was 0.4 percentage points better than in 2019, and in 2019 it was 2.3 percentage points better than in 2018.

Pricing precision and other initiatives to improve commercial lines underwriting profitability complement our business practices that continue to leverage the local presence of our field associates. Field marketing representatives meet with local agencies to assess each risk, determine limits of insurance and establish appropriate terms and conditions. They underwrite new business, with collaboration and expertise from headquarters associates as needed, while field loss control, machinery and equipment and claims representatives conduct on-site inspections. Field claims representatives also assist underwriters by preparing full reports on their first-hand observations of risk quality.

Our commercial lines statutory combined ratio was 97.5% in 2020, compared with 92.3% in 2019 and 95.1% in 2018. The contribution of catastrophe losses to our commercial lines statutory combined ratio was 10.4 percentage points in 2020, 4.5 percentage points in 2019 and 5.8 percentage points in 2018.

Commercial Lines Insurance Premiums

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Agency renewal written premiums	\$ 3,122	\$ 2,998	\$ 2,925	4	2
Agency new business written premiums	515	510	417	1	22
Other written premiums	(103)	(98)	(97)	(5)	(1)
Net written premiums	3,534	3,410	3,245	4	5
Unearned premium change	(58)	(91)	(27)	36	(237)
Earned premiums	\$ 3,476	\$ 3,319	\$ 3,218	5	3

We continue to refine our use of predictive analytics tools to improve pricing precision as we further segment commercial lines policies, emphasizing identification and retention of policies we believe have relatively stronger price adequacy. These tools better align individual insurance policy pricing to risk attributes, providing our underwriters with enhanced abilities to target profitability and to discuss pricing impacts with agency personnel. We also continue to leverage our local relationships with agents through the efforts of our teams that work closely with them. We believe our field focus is unique and has several advantages, including providing us with quality intelligence on local market conditions. We seek to maintain appropriate pricing discipline for both new and renewal business as management continues to emphasize the importance of our agencies and underwriters assessing account quality to make careful decisions on a case-by-case basis whether to write or renew a policy. Premium rate credits may be used to retain renewals of quality business and to earn new business, but we do so selectively in order to avoid commercial accounts that we believe have insufficient profit margins.

Our 4% increase in 2020 agency renewal written premiums included higher average pricing. We measure average changes in commercial lines renewal pricing as the rate of change in renewal premium for the new policy period compared with the premium for the expiring policy period, assuming no change in the level of insured exposures or policy coverage between those periods for respective policies. In 2020, our standard commercial lines policies averaged an estimated pricing change at a percentage in the mid-single-digit range, compared with a low-single-digit range in 2019. Our average commercial lines pricing change includes the flat pricing effect of certain coverages within package policies written for a three-year term that were in force but did not expire during the period being measured. Therefore, the average commercial lines pricing change we report reflects a blend of policies that did not expire and other policies that did expire during the measurement period.

For only those commercial lines policies that did expire and were then renewed during 2020, we estimate that the average price increase was near the high end of the mid-single-digit range. During 2020, we continued to further segment our commercial lines policies, emphasizing identification and retention of policies we believed had relatively stronger price adequacy. Conversely, we continued to seek more aggressive renewal terms and conditions on policies we believed had relatively weaker pricing, in turn retaining fewer of those policies.

Changes in the economy can affect insured exposures that directly relate to premium amounts charged for some policies. For commercial accounts, we usually calculate initial estimates for general liability premiums based on estimated sales or payroll volume, while we calculate workers' compensation premiums based on estimated payroll volume. A change in sales or payroll volume generally indicates a change in demand for a business's goods or services, as well as a change in its exposure to risk. Policyholders who experience sales or payroll volume changes due to economic factors may also have other exposures requiring insurance, such as commercial auto or commercial property. Premium levels for these other types of coverages generally are not linked directly to sales or payroll volumes.

Premiums resulting from audits of actual sales or payrolls that confirmed or adjusted initial premium estimates are part of net written premiums and earned premiums. The contribution to our commercial lines earned premiums was \$41 million, \$65 million and \$70 million in 2020, 2019 and 2018, respectively. The contribution on a net written premiums basis was \$53 million, \$65 million and \$70 million in 2020, 2019 and 2018, respectively. These net written premium amounts are included with agency renewal written premiums in the Commercial Lines Insurance Premiums table above.

In 2020, our commercial lines new business premiums written by our agencies increased \$5 million, or 1%, compared with 2019. The rate of growth in 2020 was much slower than in 2019, reflecting increased competition that resulted in fewer opportunities to write policies at pricing levels we believed were adequate. New business premium volume in recent years has been significantly influenced by new agency appointments. Agencies appointed since the beginning of 2019 produced commercial lines new business written premiums of \$55 million, in aggregate, during 2020, up \$39 million from what they produced during 2019. All other agencies contributed the remaining \$460 million, down \$34 million from the \$494 million they produced in 2019.

For new business, our field associates are frequently in our agents' offices to: help judge the quality of each account; emphasize the Cincinnati value proposition; call on sales prospects with those agents; carefully evaluate risk exposure; and provide their best quotes. Some of our new business comes from accounts that are not new to the agent. We believe these seasoned accounts tend to be priced more accurately than business that is new to us and the agency. As we appoint new agencies who choose to move accounts to us, we report these accounts as new business to us.

Other written premiums primarily consist of premiums that are ceded to reinsurers and lower our net written premiums. An increase in ceded premiums reduced net written premium growth by \$3 million in 2020.

Commercial Lines Insurance Loss and Loss Expenses

Loss and loss expenses include both net paid losses and reserve changes for unpaid losses as well as the associated loss expenses. Most of the incurred losses and loss expenses shown in the commercial lines insurance segment three-year highlights table are for the respective current accident years, with reserve development on prior accident years shown separately. Since less than half of our commercial lines insurance segment current accident year incurred losses and loss expenses represents net paid amounts, the majority represents reserves for our estimate of ultimate losses and loss expenses. These reserves develop over time, and we re-estimate previously reported reserves as we learn more about the development of the related claims. The table below illustrates that development. For example, the 67.0% accident year 2019 loss and loss expense ratio reported as of December 31, 2019, developed favorably by 1.6 percentage points to 65.4% due to claims settling for less than previously estimated, or due to updates to reserve estimates for unpaid claims, as of December 31, 2020. Accident years 2019 and 2018 for the commercial lines insurance segment have both developed favorably, as indicated by the progression over time of the ratios in the table.

(Dollars in millions)

Accident year loss and loss expenses incurred and ratios to earned premiums:

Accident year:	2020	2019	2018	2020	2019	2018
as of December 31, 2020	\$ 2,431	\$ 2,171	\$ 2,095	70.0 %	65.4 %	65.1 %
as of December 31, 2019		2,222	2,139		67.0	66.5
as of December 31, 2018			2,206			68.6

Catastrophe losses, as discussed in Consolidated Property Casualty Insurance Results, explain some of the movement in the current accident year loss and loss expense ratio for accident year 2020, compared with 2019. Catastrophe losses added 10.8 percentage points in 2020, 5.3 points in 2019 and 6.5 points in 2018 to the respective commercial lines current accident year loss and loss expense ratios in the table above.

The 59.2% ratio for current accident year loss and loss expenses before catastrophe losses for 2020 decreased 2.5 percentage points compared with the 61.7% accident year 2019 ratio measured as of December 31, 2019. Contributors to the decrease included less large losses incurred, described below, and the corresponding ratios for new losses above \$1 million, with a 1.0 percentage-point decrease to the 2020 ratio, and lower paid losses discussed in Consolidated Property Casualty Insurance Results. Other contributions included favorable effects from various initiatives, such as those to improve pricing precision and loss experience related to claims and loss control practices.

Commercial lines reserve development on prior accident years of \$95 million in 2020 continued to net to a favorable amount and provided a smaller benefit than the \$192 million recognized in 2019. The \$97 million net decrease in 2020 included \$24 million and \$38 million from our commercial casualty and workers' compensation lines of business, respectively. Most of our commercial lines net favorable reserve development on prior accident years recognized during 2020 occurred in our commercial casualty and workers' compensation lines of business. Favorable development recognized during 2019 and 2018 was also mostly from our commercial casualty and workers' compensation lines of business. Development by accident year and other trends for commercial lines loss and loss expenses and the related ratios are further discussed in Liquidity and Capital Resources, Property Casualty Insurance Development of Estimated Reserves by Accident Year.

Commercial Lines Insurance Losses by Size

(Dollars in millions, net of reinsurance)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Current accident year losses greater than \$5,000,000	\$ 50	\$ 27	\$ 37	85	(27)
Current accident year losses \$1,000,000-\$5,000,000	135	185	182	(27)	2
Large loss prior accident year reserve development	36	49	65	(27)	(25)
Total large losses incurred	221	261	284	(15)	(8)
Losses incurred but not reported	240	26	64	nm	(59)
Other losses excluding catastrophe losses	1,073	1,222	1,122	(12)	9
Catastrophe losses	350	142	180	146	(21)
Total losses incurred	\$ 1,884	\$ 1,651	\$ 1,650	14	0
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Current accident year losses greater than \$5,000,000	1.4 %	0.8 %	1.2 %	0.6	(0.4)
Current accident year losses \$1,000,000-\$5,000,000	4.0	5.6	5.6	(1.6)	0.0
Large loss prior accident year reserve development	1.0	1.5	2.0	(0.5)	(0.5)
Total large loss ratio	6.4	7.9	8.8	(1.5)	(0.9)
Losses incurred but not reported	6.9	0.8	2.0	6.1	(1.2)
Other losses excluding catastrophe losses	30.8	36.7	34.9	(5.9)	1.8
Catastrophe losses	10.1	4.3	5.6	5.8	(1.3)
Total loss ratio	54.2 %	49.7 %	51.3 %	4.5	(1.6)

In 2020, total large losses incurred decreased by \$40 million, or 15%, net of reinsurance. The corresponding ratio decreased 1.5 percentage points. The 2020 decreases on both a dollar and ratio basis were largely due to lower amounts for our commercial casualty and commercial property lines of business. In 2019, total large losses incurred and the corresponding ratio were lower than in 2018, largely due to lower amounts of large losses for our commercial casualty line of business. Our analysis indicated no unexpected concentration of these losses and reserve increases by geographic region, policy inception, agency or field marketing territory. We believe the inherent volatility of aggregate loss experience for our portfolio of larger policies is greater than that of our portfolio of smaller policies, and we continue to monitor the volatility in addition to general inflationary trends in loss costs.

Commercial Lines Insurance Underwriting Expenses

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Commission expenses	\$ 625	\$ 614	\$ 592	2	4
Other underwriting expenses	444	427	419	4	2
Policyholder dividends	10	12	12	(17)	0
Total underwriting expenses	\$ 1,079	\$ 1,053	\$ 1,023	2	3
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Commission expenses	18.0 %	18.5 %	18.4 %	(0.5)	0.1
Other underwriting expenses	12.7	12.9	12.9	(0.2)	0.0
Policyholder dividends	0.3	0.3	0.4	0.0	(0.1)
Total underwriting expense ratio	31.0 %	31.7 %	31.7 %	(0.7)	0.0

Commercial lines commission expenses as a percent of earned premiums decreased in 2020, compared with 2019, primarily due to a decrease in the ratio for profit-sharing commissions for agencies that reflected a higher amount of catastrophe losses. The ratio for 2019 increased compared with 2018, reflecting an increase in the ratio for agency profit-sharing commissions. In 2020, other underwriting expenses as a percent of earned premiums decreased, compared with 2019, primarily due to a lower level of business travel spending for associates and earned premiums that rose at a slightly faster pace than other underwriting expenses, in addition to ongoing expense management. In 2019, the ratio matched 2018.

Commercial Lines Insurance Outlook

Renewal and new business pricing for commercial risks continues to experience significant competitive pressure, reinforcing the need for enhanced pricing analytics and careful risk selection. Commentary regarding the commercial lines market within the property casualty insurance industry indicates commercial lines pricing in 2021 may be generally higher than in 2020. Despite challenging market conditions from strong competition, we believe we can manage our business and execute strategic initiatives to offset market pressures and profitably grow our commercial lines insurance segment.

We are building commercial lines for an even larger percentage of our agencies total portfolio, whether it's through expansion of our local field presence, enhanced expertise or flexibility in processes and service. Our goal is to be the first and last solution when our agencies are considering business placement.

We intend to keep marketing our products to a broad range of business classes with a total account approach, while also continuing improvement of our pricing precision and further segmentation among commercial lines policies. We intend to maintain our underwriting discipline and carefully manage our rate levels as well as our programs that seek to accurately match exposures with appropriate premiums. We will continue to evaluate each risk on a policy-by-policy basis, making decisions about rates, terms and conditions based on each account's individual characteristics. For our commercial auto line of business, we will continue to improve premium rate classification and the use of sophisticated rating variables in risk selection and pricing. We believe that our initiatives to improve pricing precision and lower loss costs will continue to benefit commercial lines profitability during 2021, and that recent-year premium growth initiatives will continue to grow commercial lines premiums at a healthy pace.

Personal Lines Insurance Results

Overview – Three-Year Highlights

(Dollars in millions)	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Earned premiums	\$ 1,463	\$ 1,404	\$ 1,336	4	5
Fee revenues	4	4	5	0	(20)
Total revenues	1,467	1,408	1,341	4	5
Loss and loss expenses from:					
Current accident year before catastrophe losses	762	875	838	(13)	4
Current accident year catastrophe losses	233	137	121	70	13
Prior accident years before catastrophe losses	(10)	(29)	9	66	nm
Prior accident years catastrophe losses	(8)	2	4	nm	(50)
Loss and loss expenses	977	985	972	(1)	1
Underwriting expenses	443	415	389	7	7
Underwriting profit (loss)	\$ 47	\$ 8	\$ (20)	488	nm
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Current accident year before catastrophe losses	52.1 %	62.4 %	62.8 %	(10.3)	(0.4)
Current accident year catastrophe losses	16.0	9.7	9.1	6.3	0.6
Prior accident years before catastrophe losses	(0.7)	(2.1)	0.6	1.4	(2.7)
Prior accident years catastrophe losses	(0.6)	0.2	0.3	(0.8)	(0.1)
Loss and loss expenses	66.8	70.2	72.8	(3.4)	(2.6)
Underwriting expenses	30.3	29.6	29.1	0.7	0.5
Combined ratio	97.1 %	99.8 %	101.9 %	(2.7)	(2.1)
Combined ratio:	97.1 %	99.8 %	101.9 %	(2.7)	(2.1)
Contribution from catastrophe losses and prior years reserve development	14.7	7.8	10.0	6.9	(2.2)
Combined ratio before catastrophe losses and prior years reserve development	82.4 %	92.0 %	91.9 %	(9.6)	0.1

The COVID-19 pandemic did not have a significant effect on our personal lines insurance segment premiums in 2020. Net written premiums grew 5% in 2020, following growth of 4% in 2019. Early in the second quarter of 2020, we announced a 15% policyholder credit applied to each personal auto policy for the months of April and May, resulting in approximately \$16 million of second-quarter 2020 underwriting expense.

Loss experience for our insurance operations is influenced by many factors. During the last three quarters of 2020, loss experience for our personal auto line of business improved, largely due to a reduction in personal auto reported claims resulting from reduced driving during the pandemic. Because of factors that reduce exposure to certain insurance losses, there could be a reduction in future losses that generally corresponds to reduced premiums. However, there could be losses or legal expenses that occur independent of changes in miles driven for autos we insure.

Performance highlights for the personal lines insurance segment also included:

Premiums – Earned premiums and net written premiums continued to grow in 2020, primarily due to increases in renewal written premiums that reflected higher average pricing. Renewal written premiums rose \$52 million, or 4%, in 2020, compared with 2019. Net written premiums from high net worth policies totaled approximately \$519 million in 2020, compared with \$408 million in 2019.

Combined ratio – The 2020 combined ratio improved by 2.7 percentage points, compared with 2019, despite a 5.5 percentage-point increase in the ratio for 2020 natural catastrophe losses. Development on prior accident

years' loss and loss expense reserves before catastrophes during 2020 was 1.4 percentage points less favorable than in 2019.

We have increased our pricing precision and implemented numerous rate increases in recent years to improve our personal lines insurance segment results. In addition, we have made greater use of higher minimum loss deductibles and enhanced our property inspection processes to verify condition and insurance to value. We have worked to improve our geographic diversification by expanding our personal lines operation to several states less prone to catastrophes.

Our personal lines statutory combined ratio was 96.4% in 2020, compared with 99.3% in 2019 and 101.2% in 2018. The contribution of catastrophe losses to our personal lines statutory combined ratio was 15.4 percentage points in 2020, 9.9 percentage points in 2019 and 9.4 percentage points in 2018.

Personal Lines Insurance Premiums

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Agency renewal written premiums	\$ 1,364	\$ 1,312	\$ 1,241	4	6
Agency new business written premiums	174	158	165	10	(4)
Other written premiums	(35)	(35)	(28)	0	(25)
Net written premiums	1,503	1,435	1,378	5	4
Unearned premium change	(40)	(31)	(42)	(29)	26
Earned premiums	\$ 1,463	\$ 1,404	\$ 1,336	4	5

Personal lines insurance is a strategic component of our overall relationship with most of our agencies and is an important component of our agencies' relationships with their clients. We believe agents recommend our personal insurance products to their clients who seek to balance quality and price and who are attracted by our superior claims service and the benefits of our package approach. We also believe our continuing efforts to improve pricing precision are helping us attract and retain more of our agencies' preferred business, while also obtaining higher rates for more thinly priced business.

The 4% increase in agency renewal written premiums in 2020 reflected various rate changes. We estimate that premium rates for our personal auto line of business increased at average percentages in the mid-single-digit range during 2020, with some individual policies experiencing lower or higher rate changes based on enhanced pricing precision enabled by predictive models that consider characteristics of specific risks. For our homeowner line of business, we estimate that rate increases during 2020 averaged near the high end of the mid-single-digit range, higher than in 2019. Similar to our personal auto line of business, that average varied widely by state, and some individual policies experienced lower or higher rate changes based on pricing precision and current rate level indications that helped determine appropriate premium rates.

Personal lines new business written premiums grew by \$16 million, or 10%, during 2020, compared with 2019. The growth reflects multiple factors, including a slowing effect of more stringent underwriting and pricing efforts in selected states during 2019, while maintaining discipline. It also reflects expanded use of enhanced pricing precision tools, including excess and surplus lines homeowner policies we began offering in early 2020. Those homeowner policies contributed \$8 million in 2020. Some of what we report as new business came from accounts that were not new to our agents. We believe our agents' seasoned accounts tend to be priced more accurately than business that may be less familiar to them.

Other written premiums primarily consist of premiums that are ceded to reinsurers and lower our net written premiums. A decrease in ceded premiums favorably impacted net written premium growth by \$3 million in 2020.

Personal Lines Insurance Loss and Loss Expenses

Loss and loss expenses include both net paid losses and reserve changes for unpaid losses as well as the associated loss expenses. Most of the incurred losses and loss expenses shown in the personal lines insurance segment three-year highlights table are for the respective current accident years, with reserve development on prior accident years shown separately. Since approximately two-thirds of our personal lines current accident year incurred losses and loss expenses represent net paid amounts, the remaining one-third represents reserves for our estimate of ultimate losses and loss expenses. These reserves develop over time, and we re-estimate previously reported reserves as we learn more about the development of the related claims. The table below illustrates that development. For example, the 72.1% accident year 2019 loss and loss expense ratio reported as of December 31, 2019, developed favorably by 1.5 percentage points to 70.6% due to claims settling for less than previously estimated, or due to updated reserve estimates for unpaid claims, as of December 31, 2020. Accident years 2019 and 2018 for the personal lines insurance segment have both developed favorably, as indicated by the progression over time for the ratios in the table.

(Dollars in millions)

Accident year loss and loss expenses incurred and ratios to earned premiums:

Accident year:	2020	2019	2018	2020	2019	2018
as of December 31, 2020	\$ 995	\$ 991	\$ 946	68.1 %	70.6 %	70.8 %
as of December 31, 2019		1,012	950		72.1	71.1
as of December 31, 2018			959			71.9

Catastrophe losses, as discussed in Consolidated Property Casualty Insurance Results, explain much of the movement in the current accident year loss and loss expense ratio for accident year 2020, compared with accident year 2019. Catastrophe losses added 16.0 percentage points in 2020, 9.7 points in 2019 and 9.1 points in 2018 to the respective personal lines current accident year loss and loss expense ratios in the table above. Personal lines catastrophe losses for 2020 resulted in a ratio higher than our 10.4% 10-year annual average for personal lines that included 22.8% for 2011. Personal lines catastrophe losses are inherently volatile, as discussed above and in Consolidated Property Casualty Insurance Results.

The 52.1% ratio for current accident year loss and loss expenses before catastrophe losses for 2020 improved 10.3 percentage points compared with the 62.4% accident year 2019 ratio measured as of December 31, 2019. Some of the improvement was due to lower paid losses discussed in Consolidated Property Casualty Insurance Results. The improvement was partially offset by a 0.4 percentage-point increase in the ratio for current accident year losses of \$1 million or more per claim, shown in the table below. Other contributions included favorable effects from various initiatives, such as those to improve pricing precision and loss experience related to claims and loss control practices.

Personal lines loss and loss expense reserve development on prior accident years recognized in 2020 was favorable by \$18 million, in aggregate, compared with \$27 million in 2019. The 2020 net favorable reserve development included \$15 million for our personal auto line of business and \$5 million for our homeowner line of business. The 2019 net favorable reserve development included \$26 million for our personal auto line of business, primarily for accident year 2018. In 2018, our homeowner line of business prior accident year net reserve development was unfavorable by \$24 million and was partially offset by favorable reserve development for personal auto. Development by accident year and other trends for personal lines loss and loss expenses and the related ratios are further discussed in Liquidity and Capital Resources, Property Casualty Insurance Development of Estimated Reserves by Accident Year.

Personal Lines Insurance Losses by Size

(Dollars in millions, net of reinsurance)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Current accident year losses greater than \$5,000,000	\$ —	\$ —	\$ 6	nm	(100)
Current accident year losses \$1,000,000-\$5,000,000	59	51	32	16	59
Large loss prior accident year reserve development	6	(1)	4	nm	nm
Total large losses incurred	65	50	42	30	19
Losses incurred but not reported	39	17	38	129	(55)
Other losses excluding catastrophe losses	523	662	650	(21)	2
Catastrophe losses	216	135	122	60	11
Total losses incurred	\$ 843	\$ 864	\$ 852	(2)	1
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Current accident year losses greater than \$5,000,000	0.0 %	0.0 %	0.4 %	0.0	(0.4)
Current accident year losses \$1,000,000-\$5,000,000	4.0	3.6	2.4	0.4	1.2
Large loss prior accident year reserve development	0.4	(0.1)	0.4	0.5	(0.5)
Total large loss ratio	4.4	3.5	3.2	0.9	0.3
Losses incurred but not reported	2.7	1.2	2.8	1.5	(1.6)
Other losses excluding catastrophe losses	35.8	47.2	48.7	(11.4)	(1.5)
Catastrophe losses	14.7	9.6	9.1	5.1	0.5
Total loss ratio	57.6 %	61.5 %	63.8 %	(3.9)	(2.3)

In 2020, personal lines total large losses incurred increased by \$15 million, or 30%, net of reinsurance. The ratio for 2020 large losses as a percent of earned premiums increased 0.9 percentage points. The 2020 increases on both a dollar and ratio basis were primarily due to higher amounts for our homeowner line of business and umbrella coverage in our other personal line of business. In 2019, total large losses increased, compared with 2018, primarily due to higher amounts for our homeowner line of business. Our analysis indicated no unexpected concentration of these losses and reserve increases by risk category, geographic region, policy inception, agency or field marketing territory. We believe the inherent volatility of aggregate loss experience for our portfolio of larger policies is greater than that of our portfolio of smaller policies, and we continue to monitor the volatility in addition to general inflationary trends in loss costs.

Personal Lines Insurance Underwriting Expenses

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Commission expenses	\$ 266	\$ 259	\$ 243	3	7
Other underwriting expenses	177	156	146	13	7
Total underwriting expenses	\$ 443	\$ 415	\$ 389	7	7
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Commission expenses	18.2 %	18.5 %	18.2 %	(0.3)	0.3
Other underwriting expenses	12.1	11.1	10.9	1.0	0.2
Total underwriting expense ratio	30.3 %	29.6 %	29.1 %	0.7	0.5

Personal lines commission expense as a percent of earned premiums decreased in 2020, compared with 2019, including a decrease in the ratio for profit-sharing commissions for agencies that reflected a higher amount of catastrophe losses. The ratio for 2019 increased compared with 2018, largely due to an increase in the ratio for profit-sharing commissions for agencies. In 2020, other underwriting expenses as a percent of earned premiums increased, compared with 2019, primarily due to the 15% policyholder credit applied to each personal auto policy for the months of April and May 2020. The ratio also reflects ongoing expense management efforts and premium growth outpacing growth in other expenses. Other underwriting expenses as a percent of earned premiums in 2019 increased slightly compared with 2018.

Personal Lines Insurance Outlook

A.M. Best indicates 2020 personal lines direct written premiums for the U.S. property casualty industry grew approximately 1%. Growth for our personal lines insurance segment direct written premiums in 2020 exceeded the industry by approximately 3 percentage points, and we believe it will likely be higher than industry projections for 2021. Drivers of our growth include rate increases, new state entry, accelerated pace of new agency appointments in recent years and increased focus on the high net worth personal lines market.

Our high net worth initiative, along with various other actions to improve performance in our personal lines insurance segment, is discussed in greater detail in Personal Lines Insurance Results and also in Item 1, Our Business and Our Strategy, Strategic Initiatives and Our Segments, Personal Lines Insurance Segment.

Excess and Surplus Lines Insurance Results

Overview – Three-Year Highlights

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Earned premiums	\$ 325	\$ 278	\$ 234	17	19
Fee revenues	2	2	1	0	100
Total revenues	327	280	235	17	19
Loss and loss expenses from:					
Current accident year before catastrophe losses	187	152	126	23	21
Current accident year catastrophe losses	5	1	2	400	(50)
Prior accident years before catastrophe losses	7	(11)	(24)	nm	54
Prior accident years catastrophe losses	—	—	—	0	0
Loss and loss expenses	199	142	104	40	37
Underwriting expenses	94	85	68	11	25
Underwriting profit	\$ 34	\$ 53	\$ 63	(36)	(16)
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Current accident year before catastrophe losses	57.7 %	54.6 %	53.9 %	3.1	0.7
Current accident year catastrophe losses	1.3	0.4	1.1	0.9	(0.7)
Prior accident years before catastrophe losses	2.1	(4.1)	(10.6)	6.2	6.5
Prior accident years catastrophe losses	0.2	0.2	0.0	0.0	0.2
Loss and loss expenses	61.3	51.1	44.4	10.2	6.7
Underwriting expenses	28.7	30.4	29.1	(1.7)	1.3
Combined ratio	90.0 %	81.5 %	73.5 %	8.5	8.0
Combined ratio:	90.0 %	81.5 %	73.5 %	8.5	8.0
Contribution from catastrophe losses and prior years reserve development	3.6	(3.5)	(9.5)	7.1	6.0
Combined ratio before catastrophe losses and prior years reserve development	86.4 %	85.0 %	83.0 %	1.4	2.0

The COVID-19 pandemic did not have a significant effect on our excess and surplus lines insurance segment premiums during 2020, as net written premiums grew 15%. Premium growth could slow significantly if the basis for policy premiums, such as sales revenue for businesses we insure, decrease as a result of a weakened economy.

Loss experience for our insurance operations is influenced by many factors. We have not determined any material effect on our loss experience for 2020 as a result of the pandemic. Because of factors that reduce exposure to certain insurance losses, such as reduced sales revenue for businesses, there could be a reduction in future losses that generally corresponds to reduced premiums. However, there could be losses or legal expenses that occur independent of changes in sales for businesses we insure.

Our excess and surplus lines insurance segment includes results of The Cincinnati Specialty Underwriters Insurance Company and CSU Producer Resources Inc. Performance highlights for this segment also included:

Premiums – Earned premiums and net written premiums continued to grow during 2020, including higher renewal written premiums that included average renewal estimated price increases in the mid-single-digit range. New business written premiums in 2020 matched 2019 and reflected a highly competitive market, particularly for larger policies.

Combined ratio – The combined ratio rose 8.5 percentage points in 2020, primarily due to unfavorable reserve development on prior accident years. The increase reflects more prudent reserving, as claims on average are remaining open longer than previously expected. Components of the 9.3 percentage-point increase in 2020 for the total of loss and loss expense ratios before catastrophe losses, shown in the table above, include an IBNR

portion that increased by 7.8 points and a case incurred portion that increased by 1.5 points. The paid component of the case incurred portion increased by 1.1 percentage points.

Excess and Surplus Lines Insurance Premiums

(Dollars in millions)	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Agency renewal written premiums	\$ 254	\$ 209	\$ 192	22	9
Agency new business written premiums	110	110	70	0	57
Other written premiums	(16)	(16)	(13)	0	(23)
Net written premiums	348	303	249	15	22
Unearned premium change	(23)	(25)	(15)	8	(67)
Earned premiums	\$ 325	\$ 278	\$ 234	17	19

The \$45 million increase in 2020 renewal premiums reflected the opportunity to renew many policies for the first time as well as higher renewal pricing. Average renewal estimated price increases were in the mid-single-digit range during 2020. We measure average changes in excess and surplus lines renewal pricing as the rate of change in renewal premium for the new policy period compared with the premium for the expiring policy period, assuming no change in the level of insured exposures or policy coverage between those periods for respective policies.

New business written premiums in 2020 matched 2019, as a highly competitive market offset rising premium rates and our additional marketing efforts. The high rate of growth in 2019 was largely due to more opportunities in the marketplace to write policies with annual premiums of \$10,000 or more. In 2020, our underwriters saw fewer opportunities to write larger policies at pricing levels that we believed were adequate. Other written premiums in 2020 matched 2019, and are primarily premiums that are ceded to reinsurers and therefore reduce our net written premiums.

Excess and Surplus Lines Loss and Loss Expenses

Loss and loss expenses include both net paid losses and reserve changes for unpaid losses, as well as the associated loss expenses. The majority of the total incurred losses and loss expenses shown above in the three-year highlights table are for the respective current accident years, with reserve development on prior accident years shown separately. Since less than 20% of our excess and surplus lines current accident year incurred losses and loss expenses represents net paid amounts, a large majority represents reserves for our estimate of unpaid losses and loss expenses. These reserves develop over time, and we update our estimates of previously reported reserves as we learn more about the development of the related claims. The table below illustrates that development. For example, the 55.0% accident year 2019 loss and loss expense ratio reported as of December 31, 2019, developed favorably by 0.7 percentage points to 54.3% due to claims settling for less than previously estimated, or due to updated reserve estimates for unpaid claims, as of December 31, 2020. Accident year 2018 for this segment developed favorably during 2019 but during 2020 developed unfavorably, as indicated by the progression over time of the ratios in the table.

(Dollars in millions)						
Accident year loss and loss expenses incurred and ratios to earned premiums:						
Accident year:	2020	2019	2018	2020	2019	2018
as of December 31, 2020	\$ 192	\$ 151	\$ 123	59.0 %	54.3 %	52.6 %
as of December 31, 2019		153	122		55.0	52.4
as of December 31, 2018			128			55.0

Catastrophe losses, as discussed in Consolidated Property Casualty Insurance Results, explain some of the movement among components of the current accident year loss and loss expense ratio for accident year 2020, compared with 2019. Catastrophe losses added 1.3 percentage points in 2020, 0.4 percentage points in 2019 and 1.1 percentage points in 2018 to the respective excess and surplus lines current accident year loss and loss expense ratios in the table above.

The 57.7% ratio for current accident year loss and loss expenses before catastrophe losses for 2020 increased by 3.1 percentage points compared with the 54.6% accident year 2019 ratio measured as of December 31, 2019. The increase included more prudent reserving discussed above and no change in the ratio for current accident year losses of \$1 million or more per claim, shown in the table below.

Excess and surplus lines reserve development on prior accident years was a net unfavorable \$7 million in 2020, compared with a favorable net amount of \$11 million in 2019. The net amount for 2020 included \$2 million of favorable development in aggregate for accident years 2017 through 2019, while the aggregate amount for accident years prior to 2017 was an unfavorable \$9 million. The unfavorable reserve development reflected more prudent reserving, as claims on average are remaining open longer than previously expected.

We believe the loss and loss expense reserves for our excess and surplus lines business are adequate. The amount of outstanding reserves for our excess and surplus lines operation can be seen in a table in Liquidity and Capital Resources, Property Casualty Loss and Loss Expense Obligations and Reserves. One indication of how long it takes for most of the outstanding reserves to be settled is to measure outstanding reserves by accident year at different points in time, using Item 8, Note 4 of the Consolidated Financial Statements. For example, for accident years 2013, 2012 and 2011, in aggregate, after subtracting cumulative paid amounts from incurred amounts at December 31, 2013, reserves for estimated unpaid losses, plus the portion of loss expenses known as ALAE, equaled \$129 million. For those same accident years, at December 31, 2020, the reserve estimate for the remaining unpaid amount equaled \$4 million. The inherent uncertainty in estimating reserves is discussed in Liquidity and Capital Resources, Property Casualty Insurance Loss and Loss Expense Obligations and Reserves. Development trends by accident year are further discussed in Property Casualty Insurance Development of Estimated Reserves by Accident Year.

Excess and Surplus Lines Insurance Losses by Size

(Dollars in millions, net of reinsurance)

	Years ended December 31,			2020-2019 Change %	2019-2018 Change %
	2020	2019	2018		
Current accident year losses greater than \$5,000,000	\$ —	\$ —	\$ —	nm	nm
Current accident year losses \$1,000,000-\$5,000,000	8	7	4	14	75
Large loss prior accident year reserve development	—	2	—	(100)	nm
Total large losses incurred	8	9	4	(11)	125
Losses incurred but not reported	31	7	8	343	(13)
Other losses excluding catastrophe losses	95	76	50	25	52
Catastrophe losses	5	2	2	150	0
Total losses incurred	\$ 139	\$ 94	\$ 64	48	47
Ratios as a percent of earned premiums:					
				Pt. Change	Pt. Change
Current accident year losses greater than \$5,000,000	0.0 %	0.0 %	0.0 %	0.0	0.0
Current accident year losses \$1,000,000-\$5,000,000	2.5	2.5	1.8	0.0	0.7
Large loss prior accident year reserve development	0.0	0.6	(0.1)	(0.6)	0.7
Total large loss ratio	2.5	3.1	1.7	(0.6)	1.4
Losses incurred but not reported	9.5	2.4	3.6	7.1	(1.2)
Other losses excluding catastrophe losses	29.3	27.7	21.1	1.6	6.6
Catastrophe losses	1.4	0.5	1.0	0.9	(0.5)
Total loss ratio	42.7 %	33.7 %	27.4 %	9.0	6.3

In 2020, total large losses decreased by \$1 million, net of reinsurance. The ratio for 2020 large losses as a percent of earned premiums decreased by 0.6 percentage points. That ratio for 2019 increased by 1.4 points, compared with 2018, as the amount of total large losses incurred more than doubled. Our analysis indicated no unexpected concentration of these losses and reserve increases by risk category, geographic region, policy inception, agency or field marketing territory. We believe the inherent volatility of aggregate loss experience for our portfolio of larger policies is greater than that of our portfolio of smaller policies, and we continue to monitor the volatility in addition to general inflationary trends in loss costs.

Excess and Surplus Lines Insurance Underwriting Expenses

(Dollars in millions)

	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Commission expenses	\$ 58	\$ 53	\$ 45	9	18
Other underwriting expenses	36	32	23	13	39
Total underwriting expenses	<u>\$ 94</u>	<u>\$ 85</u>	<u>\$ 68</u>	<u>11</u>	<u>25</u>
Ratios as a percent of earned premiums:				Pt. Change	Pt. Change
Commission expenses	17.6 %	18.9 %	19.3 %	(1.3)	(0.4)
Other underwriting expenses	11.1	11.5	9.8	(0.4)	1.7
Total underwriting expenses ratio	<u>28.7 %</u>	<u>30.4 %</u>	<u>29.1 %</u>	<u>(1.7)</u>	<u>1.3</u>

Excess and surplus lines commission expense as a percent of earned premiums for 2020 decreased compared with 2019, including a decrease in the ratio for profit-sharing commissions for agencies. The ratio for 2019 also decreased compared with 2018, largely due to a decrease in the ratio for profit-sharing commissions for agencies. The ratio for other underwriting expenses decreased in 2020, reflecting lower levels of business travel spending for associates, in addition to higher earned premiums and ongoing expense management efforts. In 2019, the ratio increased, primarily due to higher internal expense allocations that offset higher earned premiums and ongoing expense management efforts.

Excess and Surplus Lines Outlook

The excess and surplus lines market is expected to see the magnitude of rate increases rise slightly for risks that are casualty-driven. For property risks involving catastrophe exposures, premium rates in the foreseeable future are expected to be firm. New business opportunities, including those on larger accounts, are expected to increase as standard market insurance companies continue to re-underwrite business they previously took from the excess and surplus lines market and as larger excess and surplus lines companies re-underwrite their business with an emphasis on underwriting profitability. Firming is expected to continue for specific classes of business where loss costs are exceeding rates, such as habitational for property and general liability coverages, liquor liability for general liability coverages and hired and non-owned for general liability coverages.

Industry reports suggest that there are opportunities for profitability and growth through greater use of technology. Technology and data are also being used by excess and surplus lines insurance companies to identify new exposures in emerging businesses that need insurance protection or other value-added services.

Our strategy of providing superior service is expected to continue to grow our excess and surplus lines insurance segment and to achieve profitability despite challenging market conditions. We intend to keep carefully selecting and pricing risks, providing prompt delivery of insurance quotes and policies and giving outstanding claims and loss control service from local field representatives who also handle the standard lines business for their assigned agencies. These local representatives are supported by headquarters underwriters and claims managers who specialize in excess and surplus lines.

Life Insurance Results

Overview – Three-Year Highlights

(Dollars in millions)	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Earned premiums	\$ 289	\$ 270	\$ 250	7	8
Fee revenues	2	4	4	(50)	0
Total revenues	291	274	254	6	8
Contract holders' benefits incurred	297	286	267	4	7
Investment interest credited to contract holders	(102)	(99)	(96)	(3)	(3)
Underwriting expenses incurred	85	86	75	(1)	15
Total benefits and expenses	280	273	246	3	11
Life insurance segment profit	\$ 11	\$ 1	\$ 8	nm	(88)

The COVID-19 pandemic did not have a significant effect on our life insurance segment earned premiums, benefits or expenses in 2020. However, higher rates of unemployment during the pandemic could result in a significant decrease in premiums of our life insurance products and cause an increase in policy surrender activity in future periods. Specifically, growth in worksite premiums, which originate from enrollments at the workplace, slowed during 2020, and could continue to slow in the future, due to curtailed enrollment activity. It is also possible that we could experience higher than projected future death claims due to the pandemic.

Performance highlights for the life insurance segment also included:

- Revenues – Earned premiums rose 7% for the year 2020, as shown in the table below that includes details by major line of business. Our largest life insurance product line, term life insurance, rose 6%. Net in-force policy face amounts rose 5% to \$73.475 billion at year-end 2020 from \$69.984 billion at year-end 2019 and \$66.142 billion at year-end 2018.
- Profitability – The life insurance segment frequently reports only a small profit or loss because most of its investment income is included in the investments segment results. We include only investment income credited to contract holders (interest assumed in life insurance policy reserve calculations) in life insurance segment results. The segment reported a profit of \$11 million in 2020, \$1 million in 2019 and \$8 million in 2018. It has averaged an annual profit of \$4 million over the past five years.

Earned premiums rose \$19 million in 2020, primarily due to growth in our term life insurance business, as shown in the table below. Growth in 2019 was also primarily due to term life insurance.

(Dollars in millions)	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Term life insurance	\$ 197	\$ 186	\$ 172	6	8
Universal life insurance	44	39	37	13	5
Other life insurance and annuity products	48	45	41	7	10
Net earned premiums	\$ 289	\$ 270	\$ 250	7	8

We market term, whole and universal life products and fixed annuities. In addition, we offer term and whole life insurance to employees at their worksite. These products provide our property casualty agency force with excellent cross-serving opportunities for both commercial and personal accounts.

Over the past several years, we have worked to maintain a portfolio of simple, yet competitive, products. Our product development efforts emphasize death benefit protection and guarantees. Distribution expansion within our property casualty insurance agencies remains a high priority. Our 36 life field marketing representatives work in partnership with our property casualty field marketing representatives. Approximately 65% of our term and other life insurance product premiums were generated through our property casualty insurance agency relationships.

Life insurance segment expenses consist principally of:

- Contract holders' benefits incurred, related to traditional life and interest-sensitive products, accounted for 77.7% of 2020 total benefits and expenses compared with 76.9% in 2019 and 78.1% in 2018. Total contract holders' benefits increased as net death claims were higher in 2020, compared with 2019. Net death claims increased in 2020 and were below our mortality projections while remaining within our range of pricing expectations.
- Underwriting expenses incurred, net of deferred acquisition costs, accounted for 22.3% of 2020 total benefits and expenses compared with 23.1% in 2019 and 21.9% in 2018. Expenses in 2020 decreased 1%, compared with 7% growth in earned premiums. Expenses in 2019 increased 15%, compared with 8% growth in earned premiums. In both 2020 and 2019, unlocking of interest rate and other actuarial assumptions decreased the amount of expenses deferred to future periods, increasing underwriting expenses.

Life insurance segment profitability depends largely on premium levels, the adequacy of product pricing, underwriting skill and operating efficiencies. This segment's results include only investment interest credited to contract holders (interest assumed in life insurance policy reserve calculations). The remaining investment income is reported in the investments segment results. The life investment portfolio is managed to earn target spreads between earned investment rates on general account assets and rates credited to policyholders. We consider the value of assets under management and investment income for the life investment portfolio as key performance indicators for the life insurance segment. We seek to maintain a competitive advantage with respect to benefits paid and reserve increases by consistently achieving better than average claims experience due to skilled underwriting.

We recognize that assets under management, capital appreciation and investment income are integral to evaluation of the success of the life insurance segment because of the long duration of life products. On a basis that includes investment income and investment gains or losses from life insurance-related invested assets, our life insurance subsidiary reported net income of \$32 million in 2020, compared with \$39 million in 2019 and \$48 million in 2018. The life insurance subsidiary portfolio had after-tax net investment losses of \$21 million in 2020, \$4 million in 2019 and \$4 million in 2018. Investment gains and losses are discussed under Investments Results. We exclude most of our life insurance company investment income from investments segment results.

Life Insurance Outlook

The pandemic put a national spotlight on the importance of life insurance. Millennials and Generation Z are now more inclined to consider our product than ever before, and we are convinced that while they may prefer to shop on their own, they want to talk to a professional agent before they buy. We are implementing new digital technologies to help our agents acquire and process new business and are confident that we have plenty of room to grow.

We remain bullish on the voluntary life insurance market as well. While the pandemic made it difficult to do traditional in-person enrollments in 2020, the desire for these products increased, both with employers and their employees. As pandemic-related restrictions begin to ease and new digital enrollment options become more broadly accepted, we expect to see strong growth in this line.

The low interest rate environment continues to persist. We feel comfortable that our focus on term insurance insulates us, to some degree, from the challenges that low rates bring.

Investments Results

Overview – Three-Year Highlights

Investments Results

(Dollars in millions)	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Total investment income, net of expenses	\$ 670	\$ 646	\$ 619	4	4
Investment interest credited to contract holders	(102)	(99)	(96)	(3)	(3)
Investment gains and losses, net	865	1,650	(402)	(48)	nm
Investments profit, pretax	\$ 1,433	\$ 2,197	\$ 121	(35)	nm

During 2020, the COVID-19 pandemic and related economic effects caused volatility in fair values of securities discussed below in Total Investment Gains and Losses. Our fixed-maturity and equity portfolios experienced a decrease in valuation during the first quarter of 2020, in large part due to the volatility and economic uncertainty caused by the coronavirus outbreak that affected various sectors of our portfolio. During the first quarter of 2020, already low oil prices and the sudden demand drop in related products due to governmental actions, such as shelter-in-place orders, contributed to the energy sector accounting for most of the write-downs of impaired securities in the tables below. During the last three quarters of 2020, valuations increased for a significant portion of our fixed-maturity and equity portfolios.

The investments segment contributes investment income and investments gains and losses to results of operations. Investment income is generally our primary source of pretax and after-tax profits.

Investment income – Pretax investment income grew \$24 million, or 4%, in 2020, due to increases from dividends and interest income. Dividend income grew 9%, reflecting rising dividend rates and net purchases of equity securities from available funds. Interest income grew 2% in 2020, compared with 2019, as net purchases of fixed-maturity securities offset the continuing effects on bond yields of the low interest rate environment. Pretax investment income rose 4% in 2019, primarily due to an increase in dividend income. Average yields in the investment income table below are based on the average invested asset and cash amounts indicated in the table using fixed-maturity securities valued at amortized cost and all other securities at fair value.

Investment gains and losses – We reported an investment gain for both 2020 and 2019, primarily due to favorable changes in fair values of equity securities even though we continue to hold the securities or as otherwise required by GAAP. For 2018, we reported an investment loss, primarily due to unfavorable changes in fair values of equity securities we continued to hold.

We believe it is useful to analyze our overall investment performance by using total investment return over several years. Total investment return considers changes in unrealized gains and losses that are not included in net income, in addition to net investment income and investment gains and losses that are included in net income. Changes in unrealized gains and losses shown in the table below include other invested assets. Considering total investment gains and losses over several years helps evaluate performance since gains and losses may experience typical variability during shorter periods of time.

The table below shows total return based on assumptions that simplify cash flow timing that is commonly used in total return measures. This simplified calculation uses data shown in our consolidated financial statements or notes to those statements. Added to invested asset amounts from our consolidated balance sheets are 50% of annual amounts pertaining to invested asset categories included in net cash used in investing activities from our consolidated statements of cash flows. The cash flow amounts are reduced by net gains from investment portfolio securities sales or called bonds, with the net result reduced by 50% to represent estimated new cash invested during each respective year. All new cash is assumed to be invested at the midpoint of the year.

Total investment return of 9.8% in 2020 was 6.8 percentage points less than in 2019. Both the 2020 and 2019 contributions from the investment income component was enhanced by the net favorable effect of the investment gains and losses components. Comparing contributions for 2020 with 2019, investment income rose \$24 million, investment gains were \$785 million less favorable and the invested assets change in unrealized gains and losses decreased by \$108 million. The base component of the return calculation, annual average invested assets, was up 17% in 2020. For 2019 compared with 2018, total investment return increased by 17.3 percentage points, primarily due to a net favorable effect of the investment gains and losses compared with an unfavorable effect in 2018. The base component of the return calculation, annual average invested assets, decreased 1% in 2019.

(Dollars in millions)	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Invested assets beginning balance:					
Fixed maturities	\$ 11,698	\$ 10,689	\$ 10,699	9	0
Equity securities	7,752	5,920	6,249	31	(5)
Other invested assets	296	123	103	141	19
Invested assets beginning balance	19,746	16,732	17,051	18	(2)
Average acquisitions (dispositions), net	309	343	215	(10)	60
Annual average invested assets	\$ 20,055	\$ 17,075	\$ 17,266	17	(1)
Total investment return:					
Investment income, net of expenses	\$ 670	\$ 646	\$ 619	4	4
Investment gains and losses, net	865	1,650	(402)	(48)	nm
Total invested assets change in unrealized gains and losses	436	544	(339)	(20)	nm
Total	\$ 1,971	\$ 2,840	\$ (122)	(31)	nm
Total return on invested assets, pretax	9.8 %	16.6 %	(0.7)%		

Investment Income

The primary drivers of investment income are highlighted below, followed by additional details of our investment results.

Interest income increased by \$9 million, or 2%, in 2020, compared with 2019. The average fixed-maturity pretax yield declined by approximately 4 basis points but was offset by a larger average fixed-maturity portfolio that rose 2% on an amortized cost basis. Interest income in 2019 increased by \$1 million, compared with 2018, when that yield declined by approximately 15 basis points while the portfolio rose 4% on an amortized cost basis.

Dividend income rose \$19 million, or 9%, in 2020, after rising 11% in 2019. Increases in dividend payment rates for most of the holdings in our common stock portfolio during both 2020 and 2019 drove the increases in dividend income. An increase in funds invested in that portfolio during both 2020 and 2019 also favorably affected dividend income.

(Dollars in millions)	Years ended December 31,			2020-2019	2019-2018
	2020	2019	2018	Change %	Change %
Investment income:					
Interest	\$ 455	\$ 446	\$ 445	2	0
Dividends	220	201	181	9	11
Other	8	12	5	(33)	140
Less investment expenses	13	13	12	0	8
Investment income, pretax	670	646	619	4	4
Less income taxes	104	101	95	3	6
Total investment income, after-tax	\$ 566	\$ 545	\$ 524	4	4
Investment returns:					
Average invested assets plus cash and cash equivalents	\$ 20,670	\$ 18,697	\$ 17,397		
Average yield pretax	3.24 %	3.46 %	3.56 %		
Average yield after-tax	2.74	2.91	3.01		
Effective tax rate	15.5	15.6	15.4		
Fixed-maturity returns:					
Average amortized cost	\$ 11,210	\$ 10,876	\$ 10,479		
Average yield pretax	4.06 %	4.10 %	4.25 %		
Average yield after-tax	3.39	3.42	3.55		
Effective tax rate	16.6	16.6	16.4		

In 2020, we continued to invest available cash flow in both fixed income and equity securities in a manner that we believe balances current income needs with longer-term invested asset growth goals. While our bond portfolio more than covers our insurance reserve liabilities, we believe our diversified common stock portfolio of mainly blue chip, dividend-paying companies represents one of our best investment opportunities for the long term. We position our portfolio with consideration to both the challenges presented by the current low interest rate environment and the risks presented by potential future inflation. As bonds in our generally laddered portfolio mature or are called over the near term, we will be challenged to replace their current yield.

The table below summarizes pretax yield to amortized costs excluding any book value adjustments due to impairment for bonds in our fixed-maturity portfolio by various maturity periods.

At December 31, 2020	% Yield	Principal redemptions
Fixed-maturity yield profile:		
Expected to mature during 2021	4.37 %	\$ 835
Expected to mature during 2022	3.93	935
Expected to mature during 2023	4.26	969
Average yield and total expected redemptions from 2021 through 2023	4.18	\$ 2,739

The average pretax yield of 3.97% for fixed-maturity securities acquired during 2020, shown in the table below, was lower than the 4.12% average yield-to-amortized cost of the fixed-maturity securities portfolio at the end of 2020.

	Years ended December 31,	
	2020	2019
Average pretax yield-to-amortized cost on new fixed maturities:		
Acquired taxable fixed maturities	4.23 %	4.31 %
Acquired tax-exempt fixed maturities	2.71	3.31
Average total fixed maturities acquired	3.97	4.14

We discussed our portfolio strategies in Item 1, Investments Segment. We discuss risks related to our investment income and our fixed-maturity and equity investment portfolios in Item 7a, Quantitative and Qualitative Disclosures About Market Risk.

Total Investment Gains and Losses

Investment gains and losses are recognized on the sales of investments, for certain changes in fair values of securities even though we continue to hold the securities or as otherwise required by GAAP. New accounting requirements adopted in 2018 resulted in reporting, through net income, the change in fair value for equity securities still held, as disclosed in Note 1, Summary of Significant Accounting Policies. Total investment gains and losses included \$841 million of gains in 2020, from the recognition of fair value changes of equity securities still held that prior to 2018 would have been reported in other comprehensive income (OCI) instead of net income. Change in unrealized gains or losses for fixed-maturity securities are included as a component of OCI. Accounting requirements for the allowance for credit losses and other-than-temporary impairment (OTTI) charges for the fixed-maturity portfolio are disclosed in Item 8, Note 1, Summary of Significant Accounting Policies. The factors we consider when evaluating impairments are also discussed in Critical Accounting Estimates, Asset Impairment.

The timing of gains or losses from sales can have a material effect on results in any given period. However, such gains or losses usually have little, if any, effect on total shareholders' equity because most equity and fixed-maturity investments are carried at fair value.

As appropriate, we buy, hold or sell both fixed-maturity and equity securities on an ongoing basis to help achieve our portfolio objectives. We generally purchase fixed-maturity securities with the intention to hold until maturity. If they no longer meet our investment criteria, they are divested. Sales of fixed-maturity securities are usually due to a change in credit fundamentals. Pretax total investment gains in 2020 and 2019 were largely due to favorable changes in fair values of equity securities even though we continue to hold the securities. In 2018, total investment losses reflected unfavorable changes in fair values of fixed-maturity and equity securities we continued to hold. Additional information about investment gains or losses is included in Item 8, Note 2 of the Consolidated Financial Statements.

The table below summarizes total investment gains and losses, before taxes.

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Investment gains and losses			
Equity securities:			
Investment gains and losses on securities sold, net	\$ 79	\$ 26	\$ 9
Unrealized gains and losses on securities still held, net	841	1,626	(404)
Subtotal	920	1,652	(395)
Fixed-maturity securities:			
Gross realized gains	16	13	12
Gross realized losses	(3)	(3)	(2)
Write-down of impaired securities	(78)	(9)	(5)
Subtotal	(65)	1	5
Other	10	(3)	(12)
Total investment gains and losses reported in net income	\$ 865	\$ 1,650	\$ (402)
Change in unrealized investment gains and losses reported in OCI			
Fixed-maturity securities	436	544	(339)
Total	\$ 1,301	\$ 2,194	\$ (741)

Write-downs of impaired securities or OTTI charges from the investment portfolio by the asset classes we described in Item 1, Our Segments, Investments Segment, are summarized below:

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Taxable fixed maturities:			
Impairment amount	\$ 77	\$ 9	\$ 5
New amortized cost	\$ 78	\$ 20	\$ 8
Percent to total amortized cost owned	1 %	— %	— %
Number of impaired securities written down	13	3	1
Percent to number of securities owned	2 %	— %	— %
Tax-exempt fixed maturities:			
Impairment amount	\$ 1	\$ —	\$ —
New amortized cost	\$ 1	\$ —	\$ —
Percent to total amortized cost owned	— %	— %	— %
Number of impaired securities written down	1	—	—
Percent to number of securities owned	— %	— %	— %
Totals:			
Impairment amount	\$ 78	\$ 9	\$ 5
New amortized cost	\$ 79	\$ 20	\$ 8
Percent to total amortized cost owned	1 %	— %	— %
Number of impaired securities written down	14	3	1
Percent to number of securities owned	1 %	— %	— %

Write-downs of impaired securities or OTTI charges from the investment portfolio by industry are summarized as follows:

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Fixed maturities:			
Energy	\$ 62	\$ 6	\$ 5
Real estate	13	3	—
Consumer goods	1	—	—
Municipal	1	—	—
Technology & Electronics	1	—	—
Total fixed maturities	\$ 78	\$ 9	\$ 5

Investments Outlook

After a rapid and significant drop in securities prices during the early phase of the pandemic, both the bond and equity markets rallied through the remainder of 2020. Historically tight corporate credit spreads, along with a likely continuation of accommodating interest rate policies, will challenge new money rates and investment income growth in the near term.

We continue to focus on portfolio strategies to balance near-term income generation and long-term book value growth. In 2021, we expect to continue to allocate a portion of cash available for investment to equity securities, taking into consideration corporate liquidity and income requirements, as well as insurance department regulations and rating agency comments. We discuss our portfolio strategies in Item 1, Our Segments, Investments Segment.

An interruption or reversal of the market recovery that occurred during the second half of 2020 could have detrimental effects on securities prices and potentially lead to increases in the allowance for credit losses or write-downs of impaired securities to fair value. Our asset impairment committee continues to monitor the investment portfolio. Our asset impairment policy is described in Critical Accounting Estimates, Asset Impairment.

Other

Total revenues in 2020 and 2019 for our Other operations increased, compared with the respective prior-year periods, primarily due to earned premiums of Cincinnati Re and Cincinnati Global. Other also includes noninvestment operations of the parent company and its commercial leasing and financial services subsidiary, CFC Investment Company. Total expenses for Other also increased in 2020 and 2019, primarily due to losses and loss expenses and underwriting expenses from Cincinnati Re and Cincinnati Global.

Other loss in the table below represents losses before income taxes. For each year shown, Other loss was largely driven by interest expense from debt of the parent company. Net results for the combination of Cincinnati Re and Cincinnati Global were an underwriting loss of approximately \$26 million in 2020 and an underwriting profit of approximately \$39 million in 2019. The underwriting loss in 2020 included \$31 million of pandemic-related incurred losses and expenses, as discussed in Corporate Financial Highlights of Management's Discussion and Analysis.

(Dollars in millions)	Years ended December 31,			2020-2019 Change %	2019-2018 Change %
	2020	2019	2018		
Interest and fees on loans and leases	\$ 6	\$ 5	\$ 4	20	25
Earned premiums	427	333	132	28	152
Other revenues	4	4	1	0	300
Total revenues	437	342	137	28	150
Interest expense	54	53	53	2	0
Loss and loss expenses	325	195	98	67	99
Underwriting expenses	128	99	42	29	136
Operating expenses	20	23	16	(13)	44
Total expenses	527	370	209	42	77
Other loss	\$ (90)	\$ (28)	\$ (72)	(221)	61

Taxes

We had a \$283 million income tax expense in 2020, compared with \$475 million in 2019 and an income tax benefit of \$36 million in 2018. Our corporate effective tax rate for 2020 was 18.9% compared with 19.2% in 2019 and negative 14.3% in 2018.

The changes in our effective tax rate between periods were due to changes in our net investment gains and losses, changes in our underwriting income, as well as changes in investment income. As a result of adoption of ASU 2016-01, effective January 1, 2018, changes in our effective tax rate were impacted by large net investment losses, due to the recognition of fair value changes of equity securities still held, included in 2018 income and large investment gains included in both 2019 and 2020 income. In addition, our change in the 2018 effective tax rate included a reduction by 19.9% as a result of Internal Revenue Service approved changes to our tax accounting methods, primarily related to the valuation of our tax basis unpaid losses.

Historically, we have pursued a strategy of investing some portion of cash flow in tax-advantaged, fixed-maturity and equity securities to minimize our overall tax liability and maximize after-tax earnings. See Item 1, Our Segments, Fixed-Maturity Security Investments, for further discussion on municipal bond purchases in our fixed-maturity investment portfolio.

For tax years after 2017, for our property casualty insurance subsidiaries, approximately 75% of interest from tax-advantaged, fixed-maturity investments and approximately 40% of dividends from qualified equities are exempt from federal tax after applying proration. For our noninsurance companies, the dividend received deduction exempts 50% of dividends from qualified equities. Our life insurance company does not own tax-advantaged, fixed-maturity investments or equities subject to the dividend received deduction.

Our effective tax rate reconciliation is found in Item 8, Note 11 of the Consolidated Financial Statements.

Liquidity and Capital Resources

We seek to maintain prudent levels of liquidity and financial strength for the protection of our policyholders, creditors and shareholders. We manage liquidity at two levels to meet the short- and long-term cash requirements of business obligations and growth needs. The first is the liquidity of the parent company. The second is the liquidity of our lead insurance subsidiary. Management of liquidity at both levels is essential because each has different funding needs and sources, and each is subject to certain regulatory guidelines and requirements.

The COVID-19 pandemic and related economic effects slowed the rate of our premium growth in 2020. Most states where we market our products issued mandates or requests such as moratoriums on policy cancellations or nonrenewals for nonpayments of premiums, forbearance on premium collections, waivers of late payment fees and extended periods in which policyholders may make their missed payments. Extended or future moratoriums and deferral of premiums may disrupt cash flows while also increasing credit risk from policyholders struggling to make timely premium payments.

The pandemic did not have a significant effect on our cash flows during 2020. In addition to our historically positive operating cash flow to meet the needs of operations, we have the ability to sell a portion of our high-quality, liquid investment portfolio or slow investing activities if such need arises. We also have additional capacity to borrow on our revolving short-term line of credit, as described further below.

Parent Company Liquidity

At December 31, 2020, the parent company had \$3.771 billion in cash and marketable securities, providing strong liquidity to fund cash outflows, as needed. The payment of dividends to shareholders is largely based upon receiving subsidiary dividends. Alternatively, we could sell investments or use our line of credit to support the dividend payment.

The parent company's primary sources of cash inflows are dividends from our lead insurance subsidiary, investment income and sale proceeds from investments. The parent company's cash outflows are primarily interest and principal payments on long- and short-term debt, dividends to shareholders, common stock repurchases, deposits at Lloyd's and general operating expenses. The table below shows a summary, by the direct cash flow method, of the major sources and uses of cash flow of the parent company.

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Sources of liquidity:			
Insurance subsidiary dividends received	\$ 550	\$ 625	\$ 500
Investment income received	81	75	65
Proceeds from stock options exercised	7	11	9
Uses of liquidity:			
Shareholders' dividend payments	\$ 375	\$ 355	\$ 336
Share repurchases	261	67	125
Debt interest payments	54	52	52
Deposits at Lloyd's, net	42	67	—
Pension contribution	—	—	15

We expect 2021 parent company sources of cash flow to be similar to 2020. Use of liquidity for share repurchases are discretionary depending on cash availability and capital management decisions. Cincinnati Global is required to maintain certain capital funding requirements with Lloyd's which the parent company may deposit on their behalf. These funding requirements may fluctuate based on the profitability of Cincinnati Global and syndicate solvency capital requirements as set by Lloyd's. Other than share repurchases and funding at Lloyd's, the majority of expenditures for the parent company have been consistent during the last three years, and we expect future expenditures to remain stable.

Insurance Subsidiary Liquidity

The parent company's lead insurance subsidiary largely represents the operations of the property casualty segments. The primary sources of cash inflows are collection of premiums, investment income, maturity of fixed-income securities and sale proceeds from investments. Property casualty insurance premiums generally are received before losses are paid under the policies purchased with those premiums. Cash outflows are primarily loss and loss expenses, commissions, salaries, taxes, operating expenses and investment purchases. Over the three-year period ended December 31, 2020, premium receipts and investment income have been more than sufficient to pay claims and operating expenses. Excess cash flows were partially used to pay dividends to the parent company. We are not aware of any known trends that would materially change historical cash flow results, other than fluctuations in catastrophe claims and other large losses, either individually or in aggregate.

The table below shows a summary of operating cash flow for property casualty insurance (direct method). Historically, annual variation in operating cash flow has been largely related to changes in amounts of catastrophe losses.

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Premiums collected	\$ 5,828	\$ 5,495	\$ 5,028
Loss and loss expenses paid	(3,183)	(3,260)	(2,847)
Commissions and other underwriting expenses paid	(1,785)	(1,639)	(1,549)
Cash flow from underwriting	860	596	632
Investment income received	456	451	428
Cash flow from operations	\$ 1,316	\$ 1,047	\$ 1,060

Other Sources of Liquidity

Cash in excess of operating requirements is invested in fixed-maturity and equity securities. Cash generated from investment income provides an important investment contribution to cash flow and liquidity. The sale of investments could provide an additional source of liquidity at either the parent company or insurance subsidiary level, if required. In addition to possible sales of investments, proceeds of call or maturities of fixed-maturity securities also can provide liquidity. During the five-year period beginning in 2021, fair value of \$4.286 billion, or 34.8%, of our fixed-maturity portfolio is scheduled to mature. At December 31, 2020, we had \$8.541 billion of common stock securities, with \$3.686 billion, or 43.2%, held by the parent company.

Financial resources of the parent company also could be made available to our insurance subsidiaries, if circumstances required it. This flexibility would include our ability to access the capital markets and short-term bank borrowings. We generally have minimized our reliance on debt financing, although we may use the line of credit to fund short-term cash needs.

Long-Term Debt

We provide details of our three long-term notes in Item 8, Note 8 of the Consolidated Financial Statements. None of the notes are encumbered by rating triggers. The total principal amount of our long-term debt at December 31, 2020, was \$793 million and included:

- \$28 million aggregate principal amount of 6.900% senior debentures due 2028.
- \$391 million aggregate principal amount of 6.920% senior debentures due 2028.
- \$374 million aggregate principal amount of 6.125% senior debentures due 2034.

The company's senior debt is rated investment grade by four independent rating agencies. None of the rating agencies made changes to our debt ratings in 2020, except for the previously disclosed action by A.M. Best, which upgraded our debt rating from a- to a on January 30, 2020. At February 24, 2021, our debt ratings from the other rating agencies were: A- from Fitch, A3 from Moody's and BBB+ from S&P.

Note Payable

At December 31, 2020, we had a \$300 million line of credit with commercial banks, with \$54 million borrowed. The amount borrowed was \$39 million at December 31, 2019, and during 2020 we borrowed \$90 million of which \$75 million was used to repurchase shares during the first quarter of 2020. The \$75 million was repaid on December 31, 2020. That unsecured revolving line of credit has an accordion feature giving us the option to double the \$300 million amount, under the same terms and conditions. Terms and conditions of the agreement include a debt-to-total capital maximum of 35% and the agreement has no net worth covenant. It was due to expire on February 4, 2025, with the option of a one-year extension. On December 11, 2020, we exercised the option to extend the term of the line of credit one additional year to February 4, 2026.

At year-end 2020, we were in compliance with all covenants under the credit agreement and believe we will remain in compliance. The credit agreement provides alternative interest charges based on the type of borrowing and our debt rating. The interest rate charged is adjusted LIBOR plus an applicable margin. The agreement contains successor LIBOR rate language, which will require an amendment to reflect the new replacement rate. We could be impacted to the extent the replacement rate differs materially from the LIBOR rate.

Capital Resources

Capital resources consisting of shareholders' equity and total debt represent our overall financial strength to support current obligations and growth in our insurance businesses. At December 31, 2020, we had total capital of \$11.631 billion. Shareholders' equity was \$10.789 billion, an increase of \$925 million, or 9%, from the prior year. Our total debt was \$842 million, up \$15 million from a year ago. We seek to maintain a solid financial position and provide capital flexibility by keeping our ratio of debt to total capital moderate. At year-end 2020, the ratio was 7.2%, compared with 7.7% at year-end 2019.

At times we enter into letter of credit agreements to support our Cincinnati Re and Cincinnati Global operations. We have an unsecured letter of credit agreement to provide a portion of the capital needed to support Cincinnati Global's obligations at Lloyd's. The amount of this unsecured letter of credit agreement was \$94 million with no amounts drawn at December 31, 2020.

At the discretion of the board of directors, the company can return capital directly to shareholders as discussed below.

Dividends to shareholders – The ability of our company to continue paying cash dividends is subject to factors the board of directors deems relevant. While the board and management believe there is merit to sustaining the company's long record of dividend increases, our first priority is the company's financial strength. Over the past 10 years, the company has paid an average of 65% of net income as dividends. Through 2020, the board had increased our cash dividend for 60 consecutive years. The board's decision in January 2021 to increase the dividend demonstrated confidence in the company's strong capital, liquidity, financial flexibility and initiatives to grow earnings.

Common stock repurchase – Generally, our board believes that share repurchases can help fulfill our commitment to enhancing shareholder value. Consequently, the board has authorized the repurchase of outstanding shares, giving management discretion to purchase shares at reasonable prices in light of circumstances at the time of purchase. Our approach has been to hold capital adequate to support future growth of our insurance operations and repurchase shares at management's discretion. Repurchases are intended to offset the issuance of shares

through equity compensation plans, primarily due to vesting of service-based restricted stock units of equity awards granted in the past. The amount of future repurchases may be more, or less, than the past, depending on circumstances and discretion exercised by management. Our corporate Code of Conduct restricts repurchases during certain time periods. The details of the repurchase authorizations and activity are described in Item 5, Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Obligations

We pay obligations to customers, suppliers and associates in the normal course of our business operations. Some are contractual obligations that define the amount, circumstances and/or timing of payments. We have other commitments for business expenditures; however, the amount, circumstances and/or timing of our other commitments are not dictated by contractual arrangements.

Contractual Obligations

At December 31, 2020, we estimated our future contractual obligations as follows:

(Dollars in millions)	Year 2021	Years 2022-2023	Years 2024-2025	There- after	Total
Payment due by period					
Gross property casualty loss and loss expense payments	\$ 2,368	\$ 2,425	\$ 899	\$ 985	\$ 6,677
Gross life policyholder obligations	93	132	200	5,389	5,814
Interest on long-term debt	52	104	104	267	527
Long-term debt	—	—	—	793	793
Short-term debt	54	—	—	—	54
Profit-sharing commissions	142	—	—	—	142
Finance lease obligations	15	22	10	2	49
Operating lease obligations	2	4	3	2	11
Other liabilities	117	14	7	5	143
Total	\$ 2,843	\$ 2,701	\$ 1,223	\$ 7,443	\$ 14,210

Other Commitments

At December 31, 2020, we believe our most significant other commitments were:

Commissions – We expect commission payments to generally track with written premiums.

Other operating expenses – Many of our operating expenses are not contractual obligations but reflect the ongoing expenses of our business.

Other invested assets – We expect to fund approximately \$164 million for our private equity and real estate investments over the next several years.

Funds at Lloyd's – From time to time, we may be required to meet certain cash funding requirements on behalf of Cincinnati Global. During 2020, the parent company deposited a net \$42 million with Lloyd's to meet these funding requirements.

Liquidity and Capital Resources Outlook

At December 31, 2020, we had \$900 million in cash and cash equivalents. During 2021, our lead insurance subsidiary may pay \$583 million in dividends to our parent company without regulatory approval. That strong liquidity and our consistent cash flows give us the flexibility to meet current obligations and commitments while building value by prudently investing where we see potential for both current income and long-term return. Our cash and cash equivalents provide adequate financial cushion when short-term operating results do not meet our objectives.

A long-term perspective governs our liquidity and capital resources decisions, with the goal of benefiting our policyholders, agents, shareholders and associates over time. Our underwriting philosophy and initiatives can drive performance to achieve our underwriting profitability target of a GAAP combined ratio over any five-year

period that consistently averages within the range of 95% to 100%. Our GAAP combined ratio averaged 96.1% over the five-year period 2016 through 2020, resulting in strong underwriting profits.

In any year, we consider the most likely source of pressure on liquidity would be an unusually high level of catastrophe loss payments within a short period of time. There could be additional obligations for our insurance operations due to increasing severity or frequency of noncatastrophe claims. To address the risk of unusually large insurance loss obligations, including catastrophe events, we maintain property casualty reinsurance contracts with highly rated reinsurers, as discussed under 2021 Reinsurance Ceded Programs. We also monitor the financial condition of our reinsurers because their insolvency could jeopardize a portion of our \$517 million reinsurance recoverable asset at December 31, 2020. Parent-company liquidity could also be constrained by Ohio regulatory requirements that restrict the dividends insurance subsidiaries can pay.

Economic weakness also has the potential to affect our liquidity and capital resources in a number of different ways, including delinquent payments from agencies, defaults on interest payments by fixed-maturity holdings in our portfolio, dividend reductions by holdings in our equity portfolio or declines in the market value of holdings in our portfolio. In an effort to support insurance consumers during this pandemic, most states where we market our products issued mandates or requests such as moratoriums on policy cancellations or nonrenewals for nonpayments of premiums, forbearance on premium collections, waivers of late payment fees and extended periods in which policyholders may make their missed payments. Such actions, if extended or enacted again, may result in delayed premium receipts, disrupting cash flows and increasing credit risk from policyholders unable to make timely premium payments. Cash flows and gross premium receipts may also be affected by mid-term adjustments to exposures on which premium calculations are based to reflect the economic impact of the COVID-19 crisis on insureds' business operations.

LIBOR Discontinuation

We have identified our population of contracts that contain a LIBOR reference and determined our exposure to be minimal. Our identification is primarily related to our line of credit, an unsecured letter of credit agreement to provide a portion of the capital needed to support obligations at Lloyd's, investments in floating rate securities and late fee provisions. We will continue to work with counterparties to determine alternative rates for each contract identified.

Off-Balance-Sheet Arrangements

We do not use any special-purpose financing vehicles or have any undisclosed off-balance-sheet arrangements (as that term is defined in applicable SEC rules) that are reasonably likely to have a current or future material effect on the company's financial condition, results of operation, liquidity, capital expenditures or capital resources.

Property Casualty Loss and Loss Expense Obligations and Reserves

Our estimate of future gross property casualty loss and loss expense payments of \$6.677 billion is lower than loss and loss expense reserves of \$6.746 billion reported on our balance sheet at December 31, 2020. The \$69 million difference is due to certain life and health loss reserves. Reserving practices are discussed in Critical Accounting Estimates, Property Casualty Insurance Loss and Loss Expense Reserves.

For the business lines in the commercial and personal lines insurance segments, and in total for the excess and surplus lines insurance segment and for other parts of our property casualty insurance operations, the following table details gross reserves among case, IBNR and loss expense reserves, net of salvage and subrogation. The \$589 million increase in total gross reserves was primarily due to a \$451 million increase in IBNR loss reserves and a \$78 million increase in loss expense reserves. The increase in total gross reserves included \$133 million for our commercial casualty line of business, \$111 million for commercial property, \$95 for excess and surplus lines and \$113 million for Cincinnati Re.

Property Casualty Gross Loss and Loss Expense Reserves

(Dollars in millions)

	Loss reserves		Loss expense reserves	Total gross reserves	Percent of total
	Case reserves	IBNR reserves			
At December 31, 2020					
Commercial lines insurance:					
Commercial casualty	\$ 955	\$ 764	\$ 653	\$ 2,372	35.5 %
Commercial property	338	127	69	534	8.0
Commercial auto	391	209	141	741	11.1
Workers' compensation	402	534	89	1,025	15.4
Other commercial	92	13	104	209	3.1
Subtotal	2,178	1,647	1,056	4,881	73.1
Personal lines insurance:					
Personal auto	205	56	68	329	4.9
Homeowner	166	47	41	254	3.8
Other personal	61	90	5	156	2.3
Subtotal	432	193	114	739	11.0
Excess and surplus lines	190	133	123	446	6.7
Cincinnati Re	77	287	2	366	5.5
Cincinnati Global	147	95	3	245	3.7
Total	\$ 3,024	\$ 2,355	\$ 1,298	\$ 6,677	100.0 %
At December 31, 2019					
Commercial lines insurance:					
Commercial casualty	\$ 937	\$ 680	\$ 622	\$ 2,239	36.8 %
Commercial property	339	20	64	423	7.0
Commercial auto	409	157	143	709	11.6
Workers' compensation	404	516	93	1,013	16.6
Other commercial	108	7	70	185	3.0
Subtotal	2,197	1,380	992	4,569	75.0
Personal lines insurance:					
Personal auto	233	46	78	357	5.9
Homeowner	134	32	41	207	3.4
Other personal	49	69	5	123	2.0
Subtotal	416	147	124	687	11.3
Excess and surplus lines	149	102	100	351	5.8
Cincinnati Re	47	204	2	253	4.2
Cincinnati Global	155	71	2	228	3.7
Total	\$ 2,964	\$ 1,904	\$ 1,220	\$ 6,088	100.0 %

Asbestos and Environmental Loss and Loss Expense Reserves

We carried \$85 million of net loss and loss expense reserves for asbestos and environmental claims and \$43 million of reserves for mold claims at year-end 2020, compared with \$85 million and \$43 million, respectively, for such claims at year-end 2019. The asbestos and environmental claims amounts for each respective year constituted 1.3% and 1.5% of total net loss and loss expense reserves at these year-end dates.

We believe our exposure to asbestos and environmental claims is limited, largely because our reinsurance retention was \$500,000 or below prior to 1987. We also were predominantly a personal lines company in the 1960s and 1970s, when asbestos and pollution exclusions were not widely used by commercial lines insurers. During the 1980s and early 1990s, commercial lines grew as a percentage of our overall business and our exposure to asbestos and environmental claims grew accordingly. Over that period, we endorsed to or included in most policies an asbestos and environmental exclusion.

Additionally, since 2002, we have revised policy terms where permitted by state regulation to limit our exposure to mold claims prospectively and further reduce our exposure to other environmental claims generally. Finally, we have not engaged in any mergers or acquisitions through which such a liability could have been assumed. We continue to monitor our claims for evidence of material exposure to other mass tort classes, but we have found no such credible evidence to date.

Reserving data for asbestos and environmental claims has characteristics that limit the usefulness of the methods and models used to analyze loss and loss expense reserves for other claims. Specifically, asbestos and environmental loss and loss expenses for different accident years do not emerge independently of one another as loss development and Bornhuetter-Ferguson methods assume. In addition, asbestos and environmental loss and loss expense data available to date did not reflect a well-defined tail, greatly complicating the identification of an appropriate probabilistic trend family model. At year-end 2020, we used a weighted average of a paid survival ratio method and report year method to estimate reserves for IBNR asbestos and environmental claims. Our exposure to such claims is limited; we believe a weighted average of both methods produces a sufficient level of reserves.

Gross Property Casualty Loss and Loss Expense Payments

While we believe that historical performance of property casualty and life loss payment patterns is a reasonable source for projecting future claim payments, there is inherent uncertainty in this estimate of contractual obligations. We believe that we could meet our obligations under a significant and unexpected change in the timing of these payments because of the liquidity of our invested assets, strong financial position and access to lines of credit.

Our estimates of gross property casualty loss and loss expense payments do not include reinsurance receivables or ceded losses. As discussed in 2021 Reinsurance Ceded Programs, we purchase reinsurance to mitigate our property casualty risk exposure. Ceded property casualty reinsurance unpaid receivables of \$277 million at year-end 2020 are an offset to our gross property casualty loss and loss expense obligations. Our reinsurance program mitigates the liquidity risk of a single large loss or an unexpected rise in claim severity or frequency due to a catastrophic event. Reinsurance does not relieve us of our obligation to pay covered claims. The financial strength of our reinsurers is important because our ability to recover losses under our reinsurance agreements depends on the financial viability of the reinsurers.

We direct our associates and agencies to settle claims and pay losses as quickly as is practical, and we made \$3.183 billion of net claim payments during 2020. At year-end 2020, total net property casualty reserves of \$6.400 billion reflected \$2.833 billion in unpaid amounts on reported claims (case reserves), \$1.284 billion in loss expense reserves and \$2.283 billion in estimates of claims that were incurred but had not yet been reported (IBNR). The specific amounts and timing of obligations related to case reserves and associated loss expenses are not set contractually. The amounts and timing of obligations for IBNR claims and related loss expenses are unknown. We discuss our methods of establishing loss and loss expense reserves and our belief that reserves are adequate in Critical Accounting Estimates, Property Casualty Insurance Loss and Loss Expense Reserves.

The historical pattern of using premium receipts for the payment of loss and loss expenses has enabled us to extend slightly the maturities of our investment portfolio beyond the estimated settlement date of the loss reserves. The effective duration of our consolidated property casualty fixed-maturity portfolio was 4.3 years at year-end 2020. By contrast, the duration of our loss and loss expense reserves was approximately 3.4 years. We believe this difference in duration does not affect our ability to meet current obligations because cash flow from operations is sufficient to meet these obligations. In addition, investment holdings could be sold, if necessary, to meet higher than anticipated loss and loss expenses.

Range of Reasonable Reserves

The company established a reasonably likely range for net loss and loss expense reserves of \$5.859 billion to \$6.543 billion at year-end 2020, with the company carrying net reserves of \$6.400 billion. The range was \$5.418 billion to \$5.862 billion at year-end 2019, with the company carrying net reserves of \$5.746 billion. Our loss and loss expense reserves are not discounted for the time-value of money, but we have reduced the reserves by an estimate of the amount of salvage and subrogation payments we expect to recover.

The low point of each year's range corresponds to approximately one standard error below each year's mean reserve estimate, while the high point corresponds to approximately one standard error above each year's mean reserve estimate. We discussed management's reasons for basing reasonably likely reserve ranges on standard errors in Critical Accounting Estimates, Reserve Estimate Variability.

The ranges reflect our assessment of the most likely unpaid loss and loss expenses at year-end 2020 and 2019. However, actual unpaid loss and loss expenses could nonetheless fall outside of the indicated ranges.

Management's best estimate of total loss and loss expense reserves as of year-end 2020 and 2019 was consistent with the corresponding actuarial best estimate.

Property Casualty Insurance Development of Estimated Reserves by Accident Year

The following table shows net reserve changes at year-end 2020, 2019 and 2018 by property casualty segment and accident year:

(Dollars in millions)	Commercial lines	Personal lines	E&S lines	Other	Totals
As of December 31, 2020					
2019 accident year	\$ (51)	\$ (22)	\$ (2)	\$ (5)	\$ (80)
2018 accident year	(44)	(3)	—	(9)	(56)
2017 accident year	(4)	3	(1)	(6)	(8)
2016 accident year	4	1	8	(5)	8
2015 accident year	(10)	—	1	—	(9)
2014 accident year	4	1	1	—	6
2013 and prior accident years	6	2	—	—	8
(Favorable)/unfavorable	<u>\$ (95)</u>	<u>\$ (18)</u>	<u>\$ 7</u>	<u>\$ (25)</u>	<u>\$ (131)</u>
As of December 31, 2019					
2018 accident year	\$ (67)	\$ (10)	\$ (6)	\$ (7)	\$ (90)
2017 accident year	(48)	(6)	(1)	(6)	(61)
2016 accident year	(4)	(5)	(1)	(5)	(15)
2015 accident year	(27)	(1)	(1)	—	(29)
2014 accident year	(16)	(3)	(1)	—	(20)
2013 accident year	(16)	(2)	(1)	—	(19)
2012 and prior accident years	(14)	—	—	—	(14)
(Favorable)/unfavorable	<u>\$ (192)</u>	<u>\$ (27)</u>	<u>\$ (11)</u>	<u>\$ (18)</u>	<u>\$ (248)</u>
As of December 31, 2018					
2017 accident year	\$ (68)	\$ 11	\$ (8)	\$ 3	\$ (62)
2016 accident year	(34)	2	(3)	(2)	(37)
2015 accident year	(31)	3	(7)	—	(35)
2014 accident year	(3)	(1)	(5)	—	(9)
2013 accident year	(9)	—	—	—	(9)
2012 accident year	(10)	(1)	(1)	—	(12)
2011 and prior accident years	(2)	(1)	—	—	(3)
(Favorable)/unfavorable	<u>\$ (157)</u>	<u>\$ 13</u>	<u>\$ (24)</u>	<u>\$ 1</u>	<u>\$ (167)</u>

Overall favorable development for consolidated property casualty reserves of \$131 million in 2020 illustrated the potential for revisions inherent in estimating reserves, especially for long-tail lines such as commercial casualty and workers' compensation. As noted in Critical Accounting Estimates, Key Assumptions Loss Reserving, our models predict that actual loss and loss expense emergence will differ from projections, and we do not attempt to monitor or identify such normal variations. The table in Property Casualty Loss and Loss Expense Obligations and Reserves shows reserves by segment and lines of business and the components of gross reserves among case, IBNR and loss expense reserves.

Favorable reserve development was \$54 million for our commercial casualty line of business and \$39 million for our workers' compensation line of business, together accounting for approximately 71% of the overall total. Drivers of significant reserve development typically reflect loss emergence on known claims that was more favorable or less favorable than previously anticipated for various lines of business and are discussed below.

Commercial casualty – During 2020 and 2019, we continued to experience favorable development on prior accident years in aggregate. We continue to watch this line so we can detect unfavorable trends should they reoccur.

Workers' compensation – We continue to see favorable reserve development, for all prior accident years in aggregate. During 2020 and 2019, the trend for estimated payments to be made in future calendar years was stable compared with 2018. However, we continue to monitor this line closely, as a sudden increase in trend for future payments has a highly leveraged effect.

Commercial auto – Loss emergence continued to develop unfavorably during parts of 2020. This line of business has been troublesome for the industry in recent years. As part of the U.S. economic recession several years ago, slowing business activity influenced our estimates of reserves for ultimate losses and loss expenses during that period. As the economy slowly recovered, we believe we were slow to recognize some of the higher loss cost effects in current accident year reserve estimates for at least part of that period. As claims that occurred during that period have become more mature, paid and reported loss cost trends resulted in us increasing our estimated ultimate losses.

In consideration of the data's credibility, we analyze commercial and personal umbrella liability reserves together and then allocate the derived total reserve estimate to the commercial and personal coverages. Consequently, all of the umbrella factors that contributed to commercial lines reserve development also contributed to personal lines reserve development through the other personal line, of which personal umbrella coverages are a part.

For the excess and surplus lines insurance segment, the table showing reserves by segment and lines of business in Property Casualty Loss and Loss Expense Obligations and Reserves, shows the components of gross reserves among case, IBNR and loss expense reserves. Total gross reserves increased \$95 million from year-end 2019, largely due to the increase in premiums and exposures for this segment, as we discussed in Excess and Surplus Lines Insurance Results. More prudent reserving, as claims on average are remaining open longer than previously expected, also contributed to the increase. Adverse, or unfavorable, reserve development netted to \$7 million during 2020, following favorable development during 2019 of \$11 million for excess and surplus lines insurance segment reserves, shown in the table above, illustrates the potential for revisions inherent in estimating reserves.

Life Insurance Policyholder Obligations and Reserves

Gross Life Insurance Policyholder Obligations

Our estimates of life, annuity and disability policyholder obligations reflect future estimated cash payments to be made to policyholders for future policy benefits, policyholders' account balances and separate account liabilities. These estimates include death and disability income claims, policy surrenders, policy maturities, annuity payments, minimum guarantees on separate account products, commissions and premium taxes offset by expected future deposits and premiums on in-force contracts. Further, these estimates are based on mortality, morbidity and lapse assumptions reflective of our recent experience and expectations of future payment obligations.

Our estimates of gross life, annuity and disability obligations do not reflect net recoveries from reinsurance agreements. Ceded life reinsurance receivables were \$217 million at year-end 2020. As discussed in 2021 Reinsurance Programs, we purchase reinsurance to mitigate our life insurance risk exposure. At year-end 2020, ceded death benefits represented approximately 34.2% of our total gross policy face amounts in force.

These estimated cash outflows are undiscounted with respect to interest. As a result, the sum of the cash outflows for all years of \$5.814 billion (total of life insurance obligations) exceeds the liabilities recorded in life policy and investment contract reserves and separate accounts for future policy benefits and claims of \$3.853 billion (total of life insurance policy reserves and separate account policy reserves). A significant portion of the difference can be attributed to the time value of money and changes in mortality, morbidity and lapse assumptions between the date the liabilities were originally established and the current date.

We have made significant assumptions to determine the estimated undiscounted cash flows of these policies and contracts that include mortality, morbidity, timing of claims, future lapse rates and interest crediting rates. Due to the significance of the assumptions used, the amounts presented could materially differ from actual results.

Life Insurance Reserves

Gross life policy reserves were \$2.915 billion at year-end 2020, compared with \$2.835 billion at year-end 2019. The increase was primarily due to reserves for traditional life insurance contracts. We establish reserves for traditional life insurance policies based on expected expenses, mortality, morbidity, withdrawal rates and investment yields, including a provision for uncertainty. Once these assumptions are established, they generally are maintained throughout the lives of the contracts. We use both our own experience and industry experience adjusted for historical trends in arriving at our assumptions for expected mortality and morbidity. We use our own experience and historical trends for setting our assumptions for expected withdrawal rates and expenses. We base our assumptions for expected investment income on our own experience adjusted for current and future expected economic conditions.

We establish reserves for our universal life, deferred annuity and investment contracts equal to the cumulative account balances, which include premium deposits plus credited interest less charges and withdrawals. Some of our universal life insurance policies contain no-lapse guarantee provisions. For these policies, we establish a reserve in addition to the account balance based on expected no-lapse guarantee benefits and expected policy assessments.

We regularly review our life insurance business to ensure that any deferred acquisition cost associated with the business is recoverable and that our actuarial liabilities (life insurance segment reserves) make sufficient provision for future benefits and related expenses.

2021 Reinsurance Ceded Programs

A single large loss or an unexpected rise in claims severity or frequency due to a catastrophic event is a risk to the company's liquidity and financial strength. To control such losses, we limit marketing property casualty insurance in specific geographic areas and monitor our exposure in certain coastal regions. Examples of this include the reduction in recent years of our homeowner policies in the southeastern U.S. coastal region or limiting our earthquake writings in the New Madrid regions. Loss exposures in these areas have been identified as a major contributor to our catastrophe probable maximum loss estimates. The table below includes probable maximum loss estimates for the peril of hurricane. These estimates were subsequently reduced, in large part due to less exposure from southeastern U.S. homeowner policies. We also continually review aggregate exposures to large disasters and purchase reinsurance protection to cover these exposures. For business other than Cincinnati Re and Cincinnati Global, we use the Risk Management Solutions (RMS) and Applied Insurance Research (AIR) models to evaluate exposures to a once-in-a-100-year and a once-in-a-250-year event to help determine appropriate reinsurance coverage programs. In conjunction with these activities, we also continue to evaluate information provided by our reinsurance broker. Examples include deterministic modeling of probable maximum loss contribution from growth in new geographic territories.

To help determine appropriate reinsurance coverage for hurricane, earthquake and tornado/hail exposures, for business other than Cincinnati Re and Cincinnati Global we use the RMS and AIR models to estimate the probable maximum loss from a single event or multiple events occurring in a one-year period. The models are proprietary in nature, and the vendors that provide them periodically update the models, sometimes resulting in significant changes to their estimate of probable maximum loss. As of the end of 2020, both models indicated that a hurricane event represents our largest amount of exposure to losses. The table below summarizes estimated probabilities and the corresponding probable maximum loss from a single hurricane event occurring in a one-year period, for business other than Cincinnati Re and Cincinnati Global, and indicates the effect of such losses on consolidated shareholders' equity at December 31, 2020. Net losses are net of reinsurance, estimated reinstatement premiums and income taxes, assuming a 21% federal tax rate, and assume our 2021 reinsurance programs apply.

(Dollars in millions)	RMS Model			AIR Model		
	Gross losses	Net losses	Percent of total equity	Gross losses	Net losses	Percent of total equity
Probability at December 31, 2020						
2.0% (1 in 50 year event)	\$ 398	\$ 142	1.3 %	\$ 421	\$ 143	1.3 %
1.0% (1 in 100 year event)	636	163	1.5	633	157	1.5
0.4% (1 in 250 year event)	1,075	402	3.7	959	280	2.6
0.2% (1 in 500 year event)	1,502	737	6.8	1,285	546	5.1

The modeled losses according to RMS in the table are based on its RiskLink version 18.1 catastrophe model and use a long-term storm catalog methodology. The modeled losses according to AIR in the table are based on its AIR Touchstone® version 7.3 catastrophe model and use a long-term methodology. The AIR and RMS storm catalogs include decades of documented weather events used in simulations for probable maximum loss projections.

Reinsurance mitigates the risk of highly uncertain exposures and limits the maximum net loss that can arise from large risks or risks concentrated in areas of exposure. Management's decisions about the appropriate structure of reinsurance protection and level of risk retention are affected by various factors, including changes in our underwriting practices, capacity to retain risks and reinsurance market conditions.

Reinsurance does not relieve us of our obligation to pay covered claims. The financial strength of our reinsurers is important because our ability to recover for losses covered under any reinsurance agreement depends on the financial viability of the reinsurer.

For 2021, the primary participants on our standard market property and casualty per-risk and per-occurrence reinsurance ceded programs include Hannover Reinsurance Company, Munich Reinsurance America, Partner Reinsurance Company of the U.S. and Swiss Reinsurance America Corporation, all of which had A.M. Best insurer financial strength ratings of A (Excellent) or better as of December 31, 2020. Our property catastrophe program is subscribed through a broker by reinsurers from the United States, Bermuda, London and the European markets. The largest participant in our property catastrophe program, representing approximately 34% of total participation, is the Lloyd's of London placement that features numerous syndicates. Some of the other reinsurers with large participation in the program include the Liberty Syndicate, Lancashire Re, R&V Versicherung AG and Hamilton Re.

The following table shows our five largest property casualty reinsurance receivable amounts by reinsurer at year-end 2020 and 2019. Michigan Catastrophic Claims Association is a mandatory nonprofit association which runs a reinsurance program funded by an annual premium assessment per vehicle. This assessment covers Michigan's automobile no-fault policies which provide unlimited lifetime coverage for medical expenses resulting from auto accidents. The A.M. Best insurer financial strength ratings as of the end of the two most recent years are also shown for each of those reinsurers that have an applicable rating.

Name of reinsurer	2020		2019	
	Total receivable	A.M. Best Rating	Total receivable	A.M. Best Rating
Munich Reinsurance America	\$ 44	A+	\$ 61	A+
Swiss Reinsurance America Corporation	41	A+	51	A+
Michigan Catastrophic Claims Association	39	NA	43	NA
General Reinsurance Corporation	28	A++	29	A++
Hannover Re	20	A+	35	A+

Primary components of the 2021 property and casualty reinsurance program are summarized below. The premium estimates below occurred near the beginning of each respective year, when direct written premiums that were subject to applicable reinsurance treaties were also estimated.

Property per risk treaty – The primary purpose of the property treaty is to provide capacity up to \$50 million, adequate for the majority of the risks we write. It also includes protection for extra-contractual liability coverage losses. We retain the first \$10 million of each loss. Losses between \$10 million and \$50 million are reinsured at 100%. The 2021 ceded premium estimate was \$36 million, compared with \$31 million for the 2020 estimate.

Property excess treaty – We purchased a property reinsurance treaty that provides an additional \$50 million in protection for certain property losses. This treaty, along with the property per risk treaty, provides a total of \$100 million of protection. The 2021 ceded premium estimate was approximately \$4 million, compared with \$3 million for the 2020 estimate.

Casualty per occurrence treaty – The casualty treaty provides capacity up to \$25 million. Similar to the property treaty, it provides sufficient capacity to cover the vast majority of casualty accounts we insure and also includes protection for extra-contractual liability coverage losses. We retain the first \$10 million of each loss. Losses between \$10 million and \$25 million are reinsured at 100%. The 2021 ceded premium estimate was \$13 million, compared with \$12 million for the 2020 estimate.

Casualty excess treaty – We purchase a casualty reinsurance treaty that provides an additional \$45 million in protection for certain casualty losses. This treaty, along with the casualty per occurrence treaty, provides a total of \$70 million of protection for workers' compensation, extra-contractual liability coverage and clash coverage losses, which would apply when a single occurrence involves multiple policyholders of The Cincinnati Insurance Companies or multiple coverages for one insured. The 2021 ceded premium estimate was approximately \$3 million, essentially unchanged from the 2020 estimate.

Property catastrophe treaty – To protect against catastrophic events such as wind and hail, hurricanes or earthquakes, we purchased property catastrophe reinsurance with a limit up to \$800 million. Parts of this treaty include terms and conditions that cover multiple years. As a result, \$114 million of coverage in effect for 2021 does not include an exclusion for communicable diseases such as a virus. The remainder of this treaty, and our other property and casualty treaties effective in 2021 include exclusions for communicable disease and cyber losses. Aggregation of losses into one event, sometimes referred to as an hours clause, varies by peril. For example, the general provision in this treaty is 168 hours, but it is 120 hours for a wind event and 96 hours for a riot or civil commotion event. Losses from the same occurrence can be aggregated into one limit over the hour period applicable to the peril causing the loss and applied to the treaty towards recovery. The treaty contains one reinstatement provision. The 2021 ceded premium estimate was \$47 million, compared with \$44 million for the 2020 estimate. We retain the first \$100 million of any loss, and a share of losses up to \$800 million. The percentage share we retain for each layer of coverage is indicated below:

- 33.0% of losses between \$100 million and \$200 million
- 9.0% of losses between \$200 million and \$300 million
- 5.0% of losses between \$300 million and \$400 million
- 5.0% of losses between \$400 million and \$600 million
- 22.5% of losses between \$600 million and \$800 million

Effective June 1, 2020, we restructured and renewed our combined property catastrophe occurrence excess of loss treaty for a period of one year, commuting the expiring treaty one month in advance of its expiration date. The treaty provides coverage for various combinations of occurrences, has an aggregate limit of \$50 million in excess of \$150 million per loss and applies to business written on a direct basis and by Cincinnati Re. Cincinnati Global catastrophe losses are not applicable to the treaty. Ceded premiums for the one-year renewal period of coverage from this treaty are estimated to be approximately \$11 million. Cincinnati Re purchases additional reinsurance coverages with various triggers and unique features. As of June 1, 2020, Cincinnati Re had separate property catastrophe excess of loss coverage with a total available aggregate limit of \$30 million.

After reinsurance, our maximum exposure to a catastrophic event that causes \$800 million in covered losses in 2021 would be \$202 million, compared with our retention of \$249 million for 2020. The largest catastrophe loss event in our history occurred during 2011 from a May 20-27 storm system that included a tornado in Joplin, Missouri, and that also included significant losses from hail in the Dayton, Ohio, area. Our losses from that storm were estimated to be \$226 million before reinsurance, based on updated estimates as of December 31, 2017.

Individual risks with insured values in excess of \$100 million, as identified in the policy, are handled through a different reinsurance mechanism. We typically reinsure property coverage for individual risks with insured values between \$100 million and \$225 million under an automatic facultative agreement. For risks with property values exceeding \$225 million, we negotiate the purchase of facultative coverage on an individual certificate basis. For casualty coverage on individual risks with limits exceeding \$25 million, facultative reinsurance coverage is placed on an individual certificate basis. For risks with casualty limits that are between \$25 million and \$27 million, we sometimes forego facultative reinsurance and retain an additional \$2 million of loss exposure.

Terrorism coverage at various levels has been secured in most of our reinsurance agreements. The broadest coverage for this peril is found in the property and casualty working treaties, the property per risk treaty and the casualty per occurrence treaty, which provide coverage for commercial and personal risks. Our property catastrophe treaty provides terrorism coverage for personal risks, and coverage for commercial risks with total insured values of \$15 million or less. For insured values between \$15 million and \$100 million, there also may be coverage in the property working treaty.

A form of reinsurance is also provided through The Terrorism Risk Insurance Act of 2002 (TRIA). TRIA was originally signed into law on November 26, 2002, and extended on several occasions. The most recent extension was signed into law on December 20, 2019, and is scheduled to expire on December 31, 2027. TRIA provides a temporary federal backstop for losses related to the writing of the terrorism peril in property casualty insurance policies. Under regulations promulgated under this statute, insurers are required to offer terrorism coverage for certain lines of property casualty insurance, including property, commercial multi-peril, fire, ocean marine, inland marine, liability, aircraft and workers' compensation. In the event of a terrorism event defined by TRIA, the federal government would reimburse terrorism claim payments subject to the insurer's deductible. The deductible is calculated as a percentage of subject written premiums for the preceding calendar year. Our deductible in 2020 was \$580 million (20% of 2019 subject premiums), and we estimate it is \$610 million (20% of 2020 subject premiums) for 2021.

Reinsurance protection for the company's surety business is covered under a separate treaty with many of the same reinsurers that write the property casualty working treaties. Reinsurance protection for Cincinnati Global's business is also provided through separate treaties.

The Cincinnati Specialty Underwriters Insurance Company has separate property and casualty reinsurance treaties for 2021 through its parent, The Cincinnati Insurance Company. Primary components of the treaties include:

Property per risk treaty – The property treaty provides limits up to \$5 million, which is adequate capacity for the risk profile we insure. It also includes protection for extra-contractual liability coverage losses. Cincinnati Specialty Underwriters retains the first \$1 million of any policy loss. Losses between \$1 million and \$5 million are reinsured at 100% by The Cincinnati Insurance Company.

Casualty treaties – The casualty treaty is written on an excess of loss basis and provide limits up to \$6 million, which is adequate capacity for the risk profile we insure. A second treaty layer of \$5 million excess of \$6 million is written to provide coverage for extra contractual obligations or clash exposures. The maximum retention for any one casualty loss is \$2 million by Cincinnati Specialty Underwriters. Losses between \$2 million and \$6 million are reinsured at 100% by The Cincinnati Insurance Company.

Basket retention – Cincinnati Specialty Underwriters has purchased this coverage to limit their retention to \$2 million in the event that the same occurrence results in both a property and a casualty loss.

Property catastrophe treaty – As a subsidiary of The Cincinnati Insurance Company, Cincinnati Specialty Underwriters is a named insured under our corporate property catastrophe treaty. All terms and conditions of this reinsurance coverage apply to policies underwritten by Cincinnati Specialty Underwriters.

For property risks with limits exceeding \$5 million or casualty risks with limits exceeding \$6 million, underwriters place facultative reinsurance coverage on an individual certificate basis.

Cincinnati Life, our life insurance subsidiary, purchases reinsurance under separate treaties with many of the same reinsurers that write the property casualty working treaties. Our corporate retention is \$1 million on a single life. For most of our core term life insurance line of business, we retain no more than a \$500,000 exposure on a single policy, ceding the balance using excess over retention mortality coverage, and retaining the policy reserve. Because of the conservative nature of statutory reserving principles, retaining the policy reserve unduly depresses our statutory earnings and requires a large commitment of our capital. Effective November 1, 2015, we increased our retention to \$1 million for issue ages up to 61 years on new term life insurance sales. For issue ages 61 years or older, our retention remains \$500,000. For term life insurance business written prior to 2005, we retain 10% to 25% of each term policy, not to exceed \$500,000, ceding the balance of mortality risk and policy reserve.

We also have catastrophe reinsurance coverage on our life insurance operations that reimburses us for covered net losses in excess of \$13 million. Our recovery is capped at \$75 million for losses involving our associates.

The following table shows our five largest life reinsurance receivable amounts by reinsurer at year-end 2020 and 2019. Insurer financial strength ratings are also shown.

(Dollars in millions)						
Name of reinsurer	2020			2019		
	Total receivable	Rating agency	Rating	Total receivable	Rating Agency	Rating
Swiss Re Life & Health America, Inc.	\$ 71	A.M. Best	A+	\$ 77	A.M. Best	A+
General Re Life Corporation	43	A.M. Best	A++	41	A.M. Best	A++
Lincoln National Life Insurance Company	31	A.M. Best	A+	36	A.M. Best	A+
Security Life of Denver Insurance Company	22	S&P	A+	24	A.M. Best	A
Employers Reassurance Corporation	15	S&P	BBB+	14	A.M. Best	B+

Safe Harbor Statement

This is our “Safe Harbor” statement under the Private Securities Litigation Reform Act of 1995. Our business is subject to certain risks and uncertainties that may cause actual results to differ materially from those suggested by the forward-looking statements in this report. Some of those risks and uncertainties are discussed in Item 1A, Risk Factors.

Factors that could cause or contribute to such differences include, but are not limited to:

- Effects of the COVID-19 pandemic that could affect results for reasons such as:
 - Securities market disruption or volatility and related effects such as decreased economic activity that affect the company’s investment portfolio and book value
 - An unusually high level of claims in our insurance or reinsurance operations that increase litigation-related expenses
 - An unusually high level of insurance losses, including risk of legislation or court decisions extending business interruption insurance in commercial property coverage forms to cover claims for pure economic loss related to the COVID-19 pandemic
 - Decreased premium revenue and cash flow from disruption to our distribution channel of independent agents, consumer self-isolation, travel limitations, business restrictions and decreased economic activity
 - Inability of our workforce, agencies or vendors to perform necessary business functions
- Ongoing developments concerning business interruption insurance claims and litigation related to the COVID-19 pandemic that affect our estimates of losses and loss adjustment expenses or our ability to reasonably estimate such losses, such as:
 - The continuing duration of the pandemic and governmental actions to limit the spread of the virus that may produce additional economic losses
 - The number of policyholders that will ultimately submit claims or file lawsuits
 - The lack of submitted proofs of loss for allegedly covered claims
 - Judicial rulings in similar litigation involving other companies in the insurance industry
 - Differences in state laws and developing case law in the relatively few decisions rendered to date
 - Litigation trends, including varying legal theories advanced by policyholders
 - Whether and to what degree any class of policyholders may be certified
 - The inherent unpredictability of litigation
- Unusually high levels of catastrophe losses due to risk concentrations, changes in weather patterns, environmental events, terrorism incidents or other causes
- Increased frequency and/or severity of claims or development of claims that are unforeseen at the time of policy issuance
- Inadequate estimates, assumptions or reliance on third-party data used for critical accounting estimates
- Declines in overall stock market values negatively affecting the company’s equity portfolio and book value
- Prolonged low interest rate environment or other factors that limit the company’s ability to generate growth in investment income or interest rate fluctuations that result in declining values of fixed-maturity investments, including declines in accounts in which we hold bank-owned life insurance contract assets
- Domestic and global events resulting in capital market or credit market uncertainty, followed by prolonged periods of economic instability or recession, that lead to:
 - Significant or prolonged decline in the fair value of a particular security or group of securities and impairment of the asset(s)
 - Significant decline in investment income due to reduced or eliminated dividend payouts from a particular security or group of securities
 - Significant rise in losses from surety and director and officer policies written for financial institutions or other insured entities
- Our inability to integrate Cincinnati Global and its subsidiaries into our ongoing operations, or disruptions to our ongoing operations due to such integration

- Recession or other economic conditions resulting in lower demand for insurance products or increased payment delinquencies
- Difficulties with technology or data security breaches, including cyberattacks, that could negatively affect our ability to conduct business; disrupt our relationships with agents, policyholders and others; cause reputational damage, mitigation expenses and data loss and expose us to liability under federal and state laws
- Disruption of the insurance market caused by technology innovations such as driverless cars that could decrease consumer demand for insurance products
- Delays, inadequate data developed internally or from third parties, or performance inadequacies from ongoing development and implementation of underwriting and pricing methods, including telematics and other usage-based insurance methods, or technology projects and enhancements expected to increase our pricing accuracy, underwriting profit and competitiveness
- Increased competition that could result in a significant reduction in the company's premium volume
- Changing consumer insurance-buying habits and consolidation of independent insurance agencies that could alter our competitive advantages
- Inability to obtain adequate ceded reinsurance on acceptable terms, amount of reinsurance coverage purchased, financial strength of reinsurers and the potential for nonpayment or delay in payment by reinsurers
- Inability to defer policy acquisition costs for any business segment if pricing and loss trends would lead management to conclude that segment could not achieve sustainable profitability
- Inability of our subsidiaries to pay dividends consistent with current or past levels
- Events or conditions that could weaken or harm the company's relationships with its independent agencies and hamper opportunities to add new agencies, resulting in limitations on the company's opportunities for growth, such as:
 - Downgrades of the company's financial strength ratings
 - Concerns that doing business with the company is too difficult
 - Perceptions that the company's level of service, particularly claims service, is no longer a distinguishing characteristic in the marketplace
 - Inability or unwillingness to nimbly develop and introduce coverage product updates and innovations that our competitors offer and consumers expect to find in the marketplace
- Actions of insurance departments, state attorneys general or other regulatory agencies, including a change to a federal system of regulation from a state-based system, that:
 - Impose new obligations on us that increase our expenses or change the assumptions underlying our critical accounting estimates
 - Place the insurance industry under greater regulatory scrutiny or result in new statutes, rules and regulations
 - Restrict our ability to exit or reduce writings of unprofitable coverages or lines of business
 - Add assessments for guaranty funds, other insurance-related assessments or mandatory reinsurance arrangements; or that impair our ability to recover such assessments through future surcharges or other rate changes
 - Increase our provision for federal income taxes due to changes in tax law
 - Increase our other expenses
 - Limit our ability to set fair, adequate and reasonable rates
 - Place us at a disadvantage in the marketplace
 - Restrict our ability to execute our business model, including the way we compensate agents
- Adverse outcomes from litigation or administrative proceedings
- Events or actions, including unauthorized intentional circumvention of controls, that reduce the company's future ability to maintain effective internal control over financial reporting under the Sarbanes-Oxley Act of 2002

- Unforeseen departure of certain executive officers or other key employees due to retirement, health or other causes that could interrupt progress toward important strategic goals or diminish the effectiveness of certain longstanding relationships with insurance agents and others
- Events, such as an epidemic, natural catastrophe or terrorism, that could hamper our ability to assemble our workforce at our headquarters location

Further, the company's insurance businesses are subject to the effects of changing social, global, economic and regulatory environments. Public and regulatory initiatives have included efforts to adversely influence and restrict premium rates, restrict the ability to cancel policies, impose underwriting standards and expand overall regulation. The company also is subject to public and regulatory initiatives that can affect the market value for its common stock, such as measures affecting corporate financial reporting and governance. The ultimate changes and eventual effects, if any, of these initiatives are uncertain.

ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk

Introduction

Market risk is the potential for a decrease in securities value resulting from broad yet uncontrollable forces such as inflation, economic growth, interest rates, world political conditions or other widespread unpredictable events. It is comprised of many individual risks that, when combined, create a macroeconomic impact. The company accepts and manages risks in its investment portfolio as part of the means of achieving portfolio objectives. Some of the risks are:

- Political – the potential for a decrease in value due to the real or perceived impact of governmental policies or conditions
- Regulatory – the potential for a decrease in value due to the impact of legislative proposals or changes in laws or regulations
- Economic – the potential for a decrease in value due to changes in general economic factors (recession, inflation, deflation, etc.)
- Revaluation – the potential for a decrease in value due to a change in relative value (change in market multiple) of the market brought on by general economic factors
- Interest-rate – the potential for a decrease in value of a security or portfolio due to its sensitivity to changes (increases or decreases) in the general level of interest rates

Company-specific risk is the potential for a particular issuer to experience a decline in value due to the impact of sector or market risk on the holding or because of issues specific to the firm:

- Fraud – the potential for a negative impact on an issuer's performance due to actual or alleged illegal or improper activity of individuals it employs
- Credit – the potential for deterioration in an issuer's financial profile due to specific company issues, problems it faces in the course of its operations or industry-related issues
- Default – the possibility that an issuer will not make a required payment (interest payment or return of principal) on its debt. Generally this occurs after its financial profile has deteriorated (credit risk) and it no longer has the means to make its payments

The investment committee of the board of directors monitors the investment risk management process primarily through its executive oversight of our investment activities. We take an active approach to managing market and other investment risks, including the accountabilities and controls over these activities. Actively managing these market risks is integral to our operations and could require us to change the character of future investments purchased or sold or require us to shift the existing asset portfolios to manage exposure to market risk within acceptable ranges.

Sector risk is the potential for a negative impact on a particular industry due to its sensitivity to factors that make up market risk. Market risk affects general supply or demand factors for an industry and affects companies within that industry to varying degrees.

Risks associated with the asset classes described in Item 1, Our Segments, Investments Segment, can be summarized as follows (H – high, A – average, L – low):

	Taxable fixed maturities	Tax-exempt fixed maturities	Common equities	Nonredeemable preferred equities
Political	A	H	A	A
Regulatory	A	A	A	A
Economic	A	A	H	A
Revaluation	A	A	H	A
Interest rate	H	H	A	H
Fraud	A	L	A	A
Credit	A	L	A	A
Default	A	L	A	A

Fixed-Maturity Securities Investments

For investment-grade corporate bonds, the inverse relationship between interest rates and bond prices leads to falling bond values during periods of increasing interest rates. We address this risk by attempting to construct a generally laddered maturity schedule that allows us to reinvest cash flows at prevailing rates. Although the potential for a worsening financial condition, and ultimately default, does exist with investment-grade corporate bonds, we address this risk by performing credit analysis and monitoring as well as maintaining a diverse portfolio of holdings.

The primary risk related to high-yield corporate bonds is credit risk. A weak financial profile can lead to rating downgrades from the credit rating agencies, which can put further downward pressure on bond prices. Interest rate risk, while significant, is less of a factor with high-yield corporate bonds, as valuation is related more directly to underlying operating performance than to general interest rates. This puts more emphasis on the financial results achieved by the issuer rather than on general economic trends or statistics within the marketplace. We address this concern by analyzing issuer- and industry-specific financial results and by closely monitoring holdings within this asset class.

The primary risks related to tax-exempt bonds are interest rate risk and political risk associated with the specific economic environment within the political boundaries of the issuing municipal entity. We address these concerns by focusing on municipalities' general-obligation debt and on essential-service bonds. Essential-service bonds derive a revenue stream from municipal services that are vital to the people living in the area (water service, sewer service, etc.). Another risk related to tax-exempt bonds is regulatory risk or the potential for legislative changes that would negate the benefit of owning tax-exempt bonds. We monitor regulatory activity for situations that may negatively affect current holdings and our ongoing strategy for investing in these securities.

The final, less significant risk is our exposure to credit risk for a portion of the tax-exempt portfolio that has support from corporate entities. Examples are bonds insured by corporate bond insurers or bonds with interest payments made by a corporate entity through a municipal conduit or authority. Our decisions regarding these investments primarily consider the underlying municipal situation. The existence of third-party insurance is intended to reduce risk in the event of default. In circumstances in which the municipality is unable to meet its obligations, risk would be increased if the insuring entity were experiencing financial duress. Because of our diverse exposure and selection of higher-rated entities with strong financial profiles, we do not believe this is a material concern as we discuss in Item 1, Our Segments, Investments Segment.

Interest Rate Sensitivity Analysis

Because of our strong shareholders' equity, long-term investment horizon and ability to hold most fixed-maturity investments to maturity, we believe the company is well-positioned if interest rates were to rise. A higher rate environment would provide the opportunity to invest cash flow in higher-yielding securities, while reducing the likelihood of untimely redemptions of currently callable securities. While higher interest rates would be expected to increase the number of fixed-maturity holdings fair valued below 100% of amortized cost, we believe lower fixed-maturity security values due solely to interest rate changes would not signal a decline in credit quality.

Our dynamic financial planning model uses analytical tools to assess market risks. As part of this model, the effective duration of the fixed-maturity portfolio is continually monitored by our investment department to evaluate the theoretical impact of interest rate movements.

The table below summarizes the effect of hypothetical changes in interest rates on fair value of our fixed-maturity portfolio.

(Dollars in millions)	Effect from interest rate change in basis points					
	-200	-100	—	100	200	
At December 31, 2020	\$ 13,493	\$ 12,900	\$ 12,338	\$ 11,774	\$ 11,195	
At December 31, 2019	\$ 12,850	\$ 12,263	\$ 11,698	\$ 11,117	\$ 10,529	

The effective duration of the fixed-maturity portfolio was 4.5 years at year-end 2020, down from 4.8 years at year-end 2019. A 100-basis-point movement in interest rates would result in an approximately 4.6% change in the fair value of the fixed-maturity portfolio. Generally speaking, the higher a bond is rated, the more directly correlated movements in its fair value are to changes in the general level of interest rates, exclusive of call features. The fair values of average- to lower-rated corporate bonds are additionally influenced by the expansion or contraction of credit spreads.

In the dynamic financial planning model, the selected interest rate change of 100 to 200 basis points represents our views of a shift in rates that is quite possible over a one-year period. The rates modeled should not be considered a prediction of future events as interest rates may be much more volatile in the future. The analysis is not intended to provide a precise forecast of the effect of changes in rates on our results or financial condition, nor does it take into account any actions that we might take to reduce exposure to such risks.

Equity Securities Investments

Our equity portfolio is subject to a variety of risk factors encompassed under the umbrella of market risk. General economic swings influence the performance of the underlying industries and companies within those industries. Industry- and company-specific risks also have the potential to substantially affect the value of our portfolio. Our investment guidelines help address these risks by diversifying the portfolio and establishing parameters to help manage exposures.

The table below summarizes the effect of hypothetical changes in market prices on fair value of our equity portfolio.

(Dollars in millions)	Effect from market price change in percent							
	-30%	-20%	-10%	—	10%	20%	30%	
At December 31, 2020	\$ 6,199	\$ 7,085	\$ 7,970	\$ 8,856	\$ 9,742	\$ 10,627	\$ 11,513	
At December 31, 2019	\$ 5,426	\$ 6,202	\$ 6,977	\$ 7,752	\$ 8,527	\$ 9,302	\$ 10,078	

Our equity holdings represented \$8.856 billion in fair value and accounted for approximately 82.8% of the net unrealized gains and losses of the entire portfolio at year-end 2020. No holding had a fair value greater than 7.6% of our \$8.541 billion publicly traded common stock portfolio. We had 36 holdings among eight different sectors each with a fair value greater than \$100 million. See Item 1, Our Segments, Investments Segment and Item 8, Note 2 of the Consolidated Financial Statements, for additional details on our holdings.

The primary risks related to preferred stocks are similar to those related to investment-grade corporate bonds. Rising interest rates adversely affect market values due to the normal inverse relationship between interest rates and bond prices. Credit risk exists due to the subordinate position of preferred stocks in the capital structure. We minimize this risk by primarily purchasing investment-grade preferred stocks of issuers with a strong history of paying a common stock dividend.

Application of Asset Impairment Policy

As discussed in Item 7, Critical Accounting Estimates, Asset Impairment, our fixed-maturity investment portfolio is evaluated for credit-related impairments. The company's asset impairment committee monitors a number of significant factors for indications of investments with a fair value below the carrying amount that may not be recoverable. The application of our impairment policy resulted in write-downs of impaired securities intended to be sold that reduced our income before income taxes by \$78 million in 2020, and OTTI charges of \$9 million in 2019 and \$5 million in 2018. Impairments are discussed in Item 7, Investments Results.

We expect the number of fixed-maturity securities with a fair value below 100% of amortized cost to fluctuate as interest rates rise or fall and credit spreads expand or contract due to prevailing economic conditions. Further, cost or amortized cost for some securities have been revised due to impairment charges recognized in prior periods. At year-end 2020, 128 of the 4,128 fixed-maturity securities we owned had a fair value below 100% of cost or amortized cost compared with 157 of the 3,911 fixed-maturity and equity securities we owned at year-end 2019 and 1,262 of the 3,606 fixed-maturity and equity securities we owned at year-end 2018.

The 128 holdings fair valued below cost or amortized cost at year-end 2020 represented 3.7% of our fixed-maturity portfolio and \$10 million in unrealized losses.

118 of these holdings were fair valued between 90% and 100% of cost or amortized cost. The value of these securities fluctuates primarily because of changes in interest rates. The fair value of these 118 securities was \$441 million at year-end 2020, and they accounted for \$7 million in unrealized losses.

10 of these holdings were fair valued between 70% and 90% of cost or amortized cost. The fair value of these holdings was \$19 million, and they accounted for \$3 million in unrealized losses.

No fixed-maturity securities had a fair value below 70% of cost or amortized cost.

The following table summarizes the length of time securities in the investment portfolio have been in a continuous unrealized loss position.

(Dollars in millions)	Less than 12 months		12 months or more		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
At December 31, 2020						
Fixed-maturity securities:						
Corporate	\$ 330	\$ 5	\$ 46	\$ 2	\$ 376	\$ 7
States, municipalities and political subdivisions	31	2	2	—	33	2
Commercial mortgage-backed	23	1	6	—	29	1
United States government	12	—	—	—	12	—
Foreign government	10	—	—	—	10	—
Total	<u>\$ 406</u>	<u>\$ 8</u>	<u>\$ 54</u>	<u>\$ 2</u>	<u>\$ 460</u>	<u>\$ 10</u>
At December 31, 2019						
Fixed-maturity securities:						
Corporate	\$ 199	\$ 2	\$ 118	\$ 3	\$ 317	\$ 5
States, municipalities and political subdivisions	98	1	10	—	108	1
Commercial mortgage-backed	6	—	—	—	6	—
United States government	—	—	4	—	4	—
Foreign government	11	—	—	—	11	—
Government-sponsored enterprises	26	1	51	—	77	1
Total	<u>\$ 340</u>	<u>\$ 4</u>	<u>\$ 183</u>	<u>\$ 3</u>	<u>\$ 523</u>	<u>\$ 7</u>

The following table summarizes and classifies securities based on fair values relative to amortized cost:

(Dollars in millions)

	Number of issues	Amortized cost	Fair value	Gross unrealized gain (loss)	Gross investment income
At December 31, 2020					
Taxable fixed maturities:					
Fair valued below 70% of amortized cost	—	\$ —	\$ —	\$ —	\$ —
Fair valued at 70% to less than 100% of amortized cost	104	445	436	(9)	17
Fair valued at 100% and above of amortized cost	1,745	6,918	7,617	699	293
Investment income on securities sold in current year	—	—	—	—	21
Total	1,849	7,363	8,053	690	331
Tax-exempt fixed maturities:					
Fair valued below 70% of amortized cost	—	—	—	—	—
Fair valued at 70% to less than 100% of amortized cost	24	25	24	(1)	1
Fair valued at 100% and above of amortized cost	2,255	3,924	4,261	337	121
Investment income on securities sold in current year	—	—	—	—	2
Total	2,279	3,949	4,285	336	124
Fixed-maturities summary:					
Fair valued below 70% of amortized cost	—	—	—	—	—
Fair valued at 70% to less than 100% of amortized cost	128	470	460	(10)	18
Fair valued at 100% and above of amortized cost	4,000	10,842	11,878	1,036	414
Investment income on securities sold in current year	—	—	—	—	23
Total	4,128	\$ 11,312	\$ 12,338	\$ 1,026	\$ 455
At December 31, 2019					
Fixed-maturities summary:					
Fair valued below 70% of amortized cost	—	\$ —	\$ —	\$ —	\$ —
Fair valued at 70% to less than 100% of amortized cost	157	530	523	(7)	12
Fair valued at 100% and above of amortized cost	3,754	10,578	11,175	597	401
Investment income on securities sold in current year	—	—	—	—	33
Total	3,911	\$ 11,108	\$ 11,698	\$ 590	\$ 446

ITEM 8. Financial Statements and Supplementary Data

Responsibility for Financial Statements

We have prepared the consolidated financial statements of Cincinnati Financial Corporation and our subsidiaries for the year ended December 31, 2020, in accordance with accounting principles generally accepted in the United States of America (GAAP).

We are responsible for the integrity and objectivity of these financial statements. The amounts, presented on an accrual basis, reflect our best estimates and judgment. These statements are consistent in all material aspects with other financial information in the Annual Report on Form 10-K. Our accounting system and related internal controls are designed to assure that our books and records accurately reflect the company's transactions in accordance with established policies and procedures as implemented by qualified personnel.

Our board of directors has established an audit committee of independent outside directors. We believe these directors are free from any relationships that could interfere with their independent judgment as audit committee members.

The audit committee meets periodically with management, our independent registered public accounting firm and our internal auditors to discuss how each is handling its respective responsibilities. The audit committee reports its findings to the board of directors. The audit committee recommends to the board the annual appointment of the independent registered public accounting firm. The audit committee reviews with this firm the scope of the audit assignment and the adequacy of internal controls and procedures.

Deloitte & Touche LLP, our independent registered public accounting firm, audited the consolidated financial statements of Cincinnati Financial Corporation and subsidiaries for the year ended December 31, 2020. Deloitte & Touche LLP met with our audit committee to discuss the results of its audit. They have the opportunity to discuss the adequacy of internal controls and the quality of financial reporting without management present.

Management's Annual Report on Internal Control Over Financial Reporting

The management of Cincinnati Financial Corporation and its subsidiaries is responsible for establishing and maintaining adequate internal controls, designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America (GAAP). The company's internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company;
- 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 the directors of the company; and
- 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.

All internal control systems, no matter how well designed, have inherent limitations, including the possibility of human error and the circumvention of overriding controls. Accordingly, even effective internal control can provide only reasonable assurance with respect to financial statement preparation and presentation. Further, because of changes in conditions, the effectiveness of internal control may vary over time.

The company's management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2020, as required by Section 404 of the Sarbanes Oxley Act of 2002. Management's assessment was based on the criteria established in the Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and was designed to provide reasonable assurance that the company maintained effective internal control over financial reporting as of December 31, 2020. The assessment led management to conclude that, as of December 31, 2020, the company's internal control over financial reporting was effective based on those criteria.

The company's independent registered public accounting firm has issued an audit report on our internal control over financial reporting as of December 31, 2020.

/s/ Steven J. Johnston
Steven J. Johnston, FCAS, MAAA, CFA, CERA
Chairman, President and Chief Executive Officer

/s/ Michael J. Sewell
Michael J. Sewell, CPA
Chief Financial Officer, Senior Vice President and Treasurer
(Principal Accounting Officer)

February 25, 2021

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Cincinnati Financial Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Cincinnati Financial Corporation and subsidiaries (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and the schedules listed in the Index at Item 15(c) (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (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.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the 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.

Property and Casualty Insurance Loss and Loss Expense Reserves - Refer to Note 4 to the financial statements.

Critical Audit Matter Description

The Company's property and casualty insurance loss and loss expense reserves for long-tailed lines of business, such as workers' compensation, commercial casualty and certain other liability lines (referred to as "loss and loss expense reserves"), are determined by the Company using actuarial methods, models, assumptions, and judgment to estimate the reserves ("actuarial estimates") required to pay for and settle all outstanding insured claims, including incurred but not reported (IBNR) claims, as of the financial statement date. The actuarial estimates of loss and loss expense reserves are subject to review and adjustment by Company management.

Loss and loss expense reserves are inherently uncertain as to timing and amount and the recorded loss and loss expense reserves may vary materially from the actual ultimate cost of claims. Given the subjectivity in estimating ultimate loss and loss expense reserves, due to uncertainties concerning the future emergence of loss and loss expenses, inflation trends, and the judicial environment, among other factors, auditing loss and loss expense reserves involved an especially high degree of auditor judgment, including the need to involve our actuarial specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to loss and loss expense reserves included the following, among others:

- We tested the effectiveness of controls related to loss and loss expense reserves, including those over the review of methods, models, assumptions and judgments used, and management's review of the estimate.
- We tested the underlying data that served as the basis for the actuarial analysis, including historical claims data, to test the reasonableness of key inputs to the actuarial estimate.
- With the assistance of our actuarial specialists, we used the Company's claims data and other inputs, to develop a range of independent estimates for the loss and loss expense reserves. We used these independent estimates to assess the reasonableness of the Company's reserves by comparing our estimates to the Company's recorded loss and loss expense reserves.
- We compared the Company's prior year estimates of expected incurred losses to actual experience during the current year to identify potential bias in the determination of loss and loss expense reserves.

/S/ DELOITTE & TOUCHE LLP
Cincinnati, Ohio
February 25, 2021

We have served as the Company's auditor since 1980.

Cincinnati Financial Corporation and Subsidiaries

Consolidated Balance Sheets

(Dollars in millions, except per share data)

	December 31, 2020	December 31, 2019
Assets		
Investments		
Fixed maturities, at fair value (amortized cost: 2020—\$11,312; 2019—\$11,108)	\$ 12,338	\$ 11,698
Equity securities, at fair value (cost: 2020—\$3,927; 2019—\$3,581)	8,856	7,752
Other invested assets	348	296
Total investments	21,542	19,746
Cash and cash equivalents	900	767
Investment income receivable	136	133
Finance receivable	95	77
Premiums receivable	1,879	1,777
Reinsurance recoverable	517	610
Prepaid reinsurance premiums	65	54
Deferred policy acquisition costs	805	774
Land, building and equipment, net, for company use (accumulated depreciation: 2020—\$285; 2019—\$276)	213	207
Other assets	438	381
Separate accounts	952	882
Total assets	\$ 27,542	\$ 25,408
Liabilities		
Insurance reserves		
Loss and loss expense reserves	\$ 6,746	\$ 6,147
Life policy and investment contract reserves	2,915	2,835
Unearned premiums	2,960	2,788
Other liabilities	982	928
Deferred income tax	1,299	1,079
Note payable	54	39
Long-term debt and lease obligations	845	846
Separate accounts	952	882
Total liabilities	16,753	15,544
Commitments and contingent liabilities (Note 16)	—	—
Shareholders' Equity		
Common stock, par value—\$2 per share; (authorized: 2020 and 2019—500 million shares; issued: 2020 and 2019—198.3 million shares)	397	397
Paid-in capital	1,328	1,306
Retained earnings	10,085	9,257
Accumulated other comprehensive income	769	448
Treasury stock, at cost (2020—37.4 million shares and 2019—35.4 million shares)	(1,790)	(1,544)
Total shareholders' equity	10,789	9,864
Total liabilities and shareholders' equity	\$ 27,542	\$ 25,408

Accompanying Notes are an integral part of these Consolidated Financial Statements.

Cincinnati Financial Corporation and Subsidiaries

Consolidated Statements of Income

(Dollars in millions, except per share data)

	Years ended December 31,		
	2020	2019	2018
Revenues			
Earned premiums	\$ 5,980	\$ 5,604	\$ 5,170
Investment income, net of expenses	670	646	619
Investment gains and losses, net	865	1,650	(402)
Fee revenues	11	15	15
Other revenues	10	9	5
Total revenues	7,536	7,924	5,407
Benefits and Expenses			
Insurance losses and contract holders' benefits	4,134	3,638	3,490
Underwriting, acquisition and insurance expenses	1,829	1,738	1,597
Interest expense	54	53	53
Other operating expenses	20	23	16
Total benefits and expenses	6,037	5,452	5,156
Income Before Income Taxes	1,499	2,472	251
Provision (Benefit) for Income Taxes			
Current	147	132	11
Deferred	136	343	(47)
Total provision (benefit) for income taxes	283	475	(36)
Net Income	\$ 1,216	\$ 1,997	\$ 287
Per Common Share			
Net income—basic	\$ 7.55	\$ 12.24	\$ 1.76
Net income—diluted	7.49	12.10	1.75

Accompanying Notes are an integral part of these Consolidated Financial Statements.

Cincinnati Financial Corporation and Subsidiaries
Consolidated Statements of Comprehensive Income

(Dollars in millions)

	Years ended December 31,		
	2020	2019	2018
Net Income	\$ 1,216	\$ 1,997	\$ 287
Other Comprehensive Income (Loss)			
Change in unrealized gains and losses on investments, net of tax (benefit) of \$92, \$114 and \$(72), respectively	344	430	(267)
Amortization of pension actuarial gains and losses and prior service cost, net of tax (benefit) of \$(7), \$2 and \$(1), respectively	(25)	5	(3)
Change in life deferred acquisition costs, life policy reserves and other, net of tax (benefit) of \$1, \$(3) and \$2, respectively	2	(9)	7
Other comprehensive income (loss)	321	426	(263)
Comprehensive Income	\$ 1,537	\$ 2,423	\$ 24

Accompanying Notes are an integral part of these Consolidated Financial Statements.

Cincinnati Financial Corporation and Subsidiaries

Consolidated Statements of Shareholders' Equity

(Dollars in millions)

	Years ended December 31,		
	2020	2019	2018
Common Stock			
Beginning of year	\$ 397	\$ 397	\$ 397
Share-based awards	—	—	—
End of year	397	397	397
Paid-In Capital			
Beginning of year	1,306	1,281	1,265
Share-based awards	(15)	(12)	(17)
Share-based compensation	31	30	28
Other	6	7	5
End of year	1,328	1,306	1,281
Retained Earnings			
Beginning of year	9,257	7,625	5,180
Cumulative effect of change in accounting for credit losses as of January 1, 2020	(2)	—	—
Cumulative effect of change in accounting for equity securities as of January 1, 2018	—	—	2,503
Adjusted beginning of year	9,255	7,625	7,683
Net income	1,216	1,997	287
Dividends declared	(386)	(365)	(345)
End of year	10,085	9,257	7,625
Accumulated Other Comprehensive Income			
Beginning of year	448	22	2,788
Cumulative effect of change in accounting for equity securities as of January 1, 2018	—	—	(2,503)
Adjusted beginning of year	448	22	285
Other comprehensive income (loss)	321	426	(263)
End of year	769	448	22
Treasury Stock			
Beginning of year	(1,544)	(1,492)	(1,387)
Share-based awards	15	21	21
Shares acquired - share repurchase authorization	(261)	(67)	(125)
Shares acquired - share-based compensation plans	(5)	(9)	(5)
Other	5	3	4
End of year	(1,790)	(1,544)	(1,492)
Total Shareholders' Equity	\$ 10,789	\$ 9,864	\$ 7,833

(In millions)

Common Stock - Shares Outstanding			
Beginning of year	162.9	162.8	163.9
Share-based awards	0.5	0.7	0.7
Shares acquired - share repurchase authorization	(2.5)	(0.6)	(1.8)
Shares acquired - share-based compensation plans	(0.1)	(0.1)	—
Other	0.1	0.1	—
End of year	160.9	162.9	162.8

Accompanying Notes are an integral part of these Consolidated Financial Statements.

Cincinnati Financial Corporation and Subsidiaries

Consolidated Statements of Cash Flows

(Dollars in millions)

	Years ended December 31,		
	2020	2019	2018
Cash Flows From Operating Activities			
Net income	\$ 1,216	\$ 1,997	\$ 287
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	81	72	63
Investment gains and losses, net	(851)	(1,640)	408
Share-based compensation	31	30	28
Interest credited to contract holders	43	44	47
Deferred income tax expense	136	343	(47)
Changes in:			
Investment income receivable	(3)	(1)	2
Premiums and reinsurance receivable	(23)	(174)	(109)
Deferred policy acquisition costs	(39)	(61)	(48)
Other assets	(26)	(22)	(1)
Loss and loss expense reserves	599	163	434
Life policy and investment contract reserves	116	107	96
Unearned premiums	172	184	112
Other liabilities	(5)	74	—
Current income tax receivable/payable	44	92	(91)
Net cash provided by operating activities	1,491	1,208	1,181
Cash Flows From Investing Activities			
Sale of fixed maturities	179	102	36
Call or maturity of fixed maturities	912	1,241	1,127
Sale of equity securities	515	203	403
Purchase of fixed maturities	(1,382)	(1,742)	(1,510)
Purchase of equity securities	(699)	(382)	(441)
Investment in finance receivables	(50)	(34)	(33)
Collection of finance receivables	35	29	25
Investment in buildings and equipment	(20)	(24)	(20)
Change in other invested assets, net	(50)	(72)	(38)
Net cash used in investing activities	(560)	(679)	(451)
Cash Flows From Financing Activities			
Payment of cash dividends to shareholders	(375)	(355)	(336)
Shares acquired - share repurchase authorization	(261)	(67)	(125)
Changes in note payable	15	7	8
Proceeds from stock options exercised	7	11	9
Contract holders' funds deposited	85	86	84
Contract holders' funds withdrawn	(159)	(174)	(183)
Other	(110)	(54)	(60)
Net cash used in financing activities	(798)	(546)	(603)
Net change in cash and cash equivalents	133	(17)	127
Cash and cash equivalents at beginning of year	767	784	657
Cash and cash equivalents at end of year	\$ 900	\$ 767	\$ 784
Supplemental Disclosures of Cash Flow Information			
Interest paid	\$ 53	\$ 53	\$ 53
Income taxes paid	84	34	98
Noncash Activities			
Equipment acquired under finance lease obligations	\$ 19	\$ 14	\$ 21
Share-based compensation	19	9	5
Other assets and other liabilities	57	29	48

Accompanying Notes are an integral part of these Consolidated Financial Statements.

Notes to Consolidated Financial Statements

NOTE 1 – Summary of Significant Accounting Policies

Nature of Operations

Cincinnati Financial Corporation (CFC) operates through The Cincinnati Insurance Company and Cincinnati Global Underwriting Ltd.SM (Cincinnati Global) insurance subsidiaries and two complementary subsidiary companies. Cincinnati Global, our London-based global specialty underwriter, was acquired effective February 28, 2019.

The Cincinnati Insurance Company leads our insurance group that also includes two subsidiaries: The Cincinnati Casualty Company and The Cincinnati Indemnity Company. This group markets a broad range of standard market commercial and personal policies. The group focuses on delivery of quality customer service to our select group of 1,848 independent insurance agencies with 2,578 reporting locations across 45 states. Other subsidiaries of The Cincinnati Insurance Company include: The Cincinnati Life Insurance Company, which markets life insurance and fixed annuities; and The Cincinnati Specialty Underwriters Insurance Company, which offers excess and surplus lines property casualty insurance products. The Cincinnati Insurance Company also conducts the business of our reinsurance assumed operations, Cincinnati Re®.

The two CFC complementary subsidiaries are CSU Producer Resources Inc., which provides insurance brokerage services to our independent agencies so their clients can access our excess and surplus lines insurance products, and CFC Investment Company, which offers commercial leasing and financing services to our agents, their clients and other customers.

The World Health Organization declared the 2019 novel coronavirus (SARS-CoV-2 or COVID-19) outbreak a Public Health Emergency of International Concern on January 30, 2020, and a pandemic on March 11, 2020. The pandemic outbreak has caused an economic downturn on a global scale and although many businesses have resumed operations at some capacity, there is still uncertainty surrounding future government and private company restrictions. The pandemic, and unprecedented actions taken to contain the virus, has also continued to cause market disruption and volatility. For 2020, the company estimated that pandemic-related incurred losses and expenses totaled \$85 million. The company continues to monitor the impact of the pandemic as it unfolds. The company cannot predict the impact the pandemic will have on its future consolidated financial condition, results of operations and cash flows, however the impact could be material.

Basis of Presentation

Our consolidated financial statements include the accounts of the parent and its wholly owned subsidiaries and are presented in conformity with accounting principles generally accepted in the United States of America (GAAP). The 2019 consolidated financial statements include Cincinnati Global's results for the period from February 28, 2019, through December 31, 2019. Foreign exchange rates related to Cincinnati Global's operations did not have a material impact to our consolidated financial statements. All intercompany balances and transactions have been eliminated in consolidation.

The preparation of the consolidated financial statements in conformity with GAAP requires us to make estimates and assumptions that affect amounts reported in the consolidated financial statements and accompanying notes. Our actual results could differ from those estimates.

Investments

Our portfolio investments are primarily in publicly traded fixed-maturity and equity security investments. Fixed-maturity investments (taxable bonds, tax-exempt bonds, redeemable preferred equities and commercial mortgage-backed securities) classified as available for sale and equity investments (common and nonredeemable preferred equities) are recorded at fair value in the consolidated financial statements. Changes in fair value of fixed-maturity securities are reported in other comprehensive income while equity securities are reported in net income. The number of fixed-maturity securities with fair values below 100% of amortized cost can be expected to fluctuate as interest rates rise or fall. Because of our strong capital and long-term investment horizon, our general intent is to hold fixed-maturity investments until maturity, regardless of short-term fluctuations in fair values.

An available for sale fixed maturity is impaired if the fair value of the security is below amortized cost. The impaired loss is charged to net income when we have the intent to sell the security or it is more likely than not we will be

required to sell the security before recovery of the amortized cost. For impaired securities we intend to hold, an allowance for credit related losses is recorded in investment losses when the company determines a credit loss has been incurred based on certain factors such as adverse conditions, credit rating downgrades or failure of the issuer to make scheduled principal or interest payments. A credit loss is determined using a discounted cash flow analysis by comparing the present value of expected cash flows with the amortized cost basis, limited to the difference between fair value and amortized cost. Noncredit losses are recognized in other comprehensive income as a change in unrealized gains and losses on investments. As securities are sold, we recognize the gain or loss in income based on the trade date.

Included within our other invested assets were \$162 million and \$164 million held on deposit at Lloyd's, \$128 million and \$71 million of private equity investments, \$33 million and \$32 million of life policy loans and \$25 million and \$29 million of real estate through direct property ownership and development projects in the United States at December 31, 2020 and 2019, respectively. Lloyd's deposits primarily consist of highly liquid short-term investment instruments. The private equity investments provide their financial statements to us and generally report investments on their balance sheets at fair value. We use the equity method of accounting for private equity and real estate development investments. Life policy loans are carried at the receivable value.

Investment income, net of expenses, consists mainly of interest and dividends. We record interest on an accrual basis and record dividends at the ex-dividend date. We amortize premiums and discounts on fixed-maturity securities using the effective interest method over the expected life of the security.

Fair Value Disclosures

Fair value is defined as the exit price or the amount that would be (1) received to sell an asset or (2) paid to transfer a liability in an orderly transaction between marketplace participants at the measurement date. When determining an exit price, we rely upon observable market data whenever possible. We primarily base fair value for investments in equity and fixed-maturity securities (including redeemable preferred stock and assets held in separate accounts) on quoted market prices or on prices from the company's nationally recognized pricing vendors, outside resources that supply global securities pricing, dividend, corporate action and descriptive information to support fund pricing, securities operations, research and portfolio management. The company obtains and reviews the pricing services' valuation methodologies and related inputs and validates these prices by replicating a sample across each asset class using a discounted cash flow model. When a price is not available from these sources, as in the case of securities that are not publicly traded, we determine the fair value using various inputs including quotes from independent brokers. The fair value of investments not priced by the company's nationally recognized pricing vendors is immaterial.

For the purpose of Accounting Standards Codification (ASC) 825, *Financial Instruments* disclosure, we estimate the fair value of our long-term senior notes on market pricing of similar debt instruments that are actively trading. We estimate the fair value of our note payable on the year-end outstanding balance because it is short term and tied to a variable interest rate. We estimate the fair value of liabilities for investment contracts and annuities using discounted cash flow calculations across a wide range of economic interest rate scenarios with a provision for our nonperformance risk. We estimate the fair value for policyholder loans on insurance contracts using a discounted cash flow model. Determination of fair value for structured settlements assumes the discount rates used to calculate the present value of expected payments are the risk-free spot rates plus an A3 rated bond spread for financial issuers at December 31, 2020, to account for nonperformance risk. See Note 3, Fair Value Measurements, for further details.

Cash and Cash Equivalents

Cash and cash equivalents are highly liquid instruments that include liquid debt instruments with original maturities of less than three months. These are carried at cost, which approximates fair value.

Property Casualty Insurance

The consolidated property casualty companies actively write property casualty insurance through independent agencies in 45 states. Our 10 largest states generated 53.3% and 54.8% of total earned premiums in 2020 and 2019, respectively. Ohio, our largest state, accounted for 14.8% and 15.1% of total earned premiums in 2020 and 2019, respectively. Illinois, Georgia, North Carolina, Pennsylvania and Indiana each accounted for between 4% and 6% of total earned premiums in 2020. Our largest single agency relationship accounted for approximately 1.3% of our total property casualty earned premiums in 2020. No aggregate agency relationship locations under a single

ownership structure accounted for more than 4% of our total property casualty earned premiums in 2020. We record revenues for installment charges as fee revenues in the consolidated statements of income.

Property casualty written premiums are deferred and recorded as earned premiums primarily on a pro rata basis over the terms of the policies. We record as unearned premiums the portion of written premiums that applies to unexpired policy terms. Expenses associated with successfully acquiring insurance policies – commissions, premium taxes and underwriting costs – are deferred and amortized over the terms of the policies. We assess recoverability of deferred acquisition costs at a level consistent with the way we acquire, service and manage insurance policies and measure profitability. We analyze our acquisition cost assumptions to reflect actual experience, and we evaluate potential premium deficiencies.

Certain property casualty policies are not entered into policy underwriting systems as of the effective date of coverage. An estimate is recorded for these unprocessed written premiums. A large majority of the estimate is unearned and has no material impact on earned premiums.

An allowance for credit losses on uncollectible property casualty premiums is updated and reviewed on a quarterly basis. At January 1, 2020, the allowance was \$9 million. At December 31, 2020, the allowance increased to \$19 million, of which a significant portion was due to consideration of pandemic-related factors. Other changes in the amount during 2020 were immaterial.

We establish reserves to cover the expected cost of claims, losses and expenses related to investigating, processing and resolving claims. Although the appropriate amount of reserves is inherently uncertain, we base our decisions on past experience and current facts. Reserves are based on claims reported prior to the end of the year and estimates of incurred but not reported (IBNR) claims. We regularly review and update reserves using the most current information available. Any resulting adjustments are reflected in current calendar year insurance losses and policyholder benefits. We estimate that we may recover some of our costs through salvage and subrogation.

Policyholder Dividends

Certain workers' compensation policies include the possibility of a policyholder earning a return of a portion of premium in the form of a policyholder dividend. The dividend generally is calculated by determining the profitability of a policy year along with the associated premium. We reserve for all probable future policyholder dividend payments. We record policyholder dividends as other underwriting expenses.

Life Insurance

We offer several types of life insurance and we account for each according to the duration of the contract. Short-duration life and health contracts are written to cover claims that arise during a short, fixed term of coverage. We generally have the right to change the amount of premium charged or cancel the coverage at the end of each contract term. We record premiums for short-duration life and health contracts similarly to property casualty contracts.

Long-duration contracts are written to provide coverage for an extended period of time. Traditional long-duration contracts require policyholders to pay scheduled gross premiums, generally not less frequently than annually, over the term of the coverage. Premiums for these contracts, such as whole life insurance are recognized as revenue when due. Some traditional long-duration contracts, such as ten-pay whole life insurance, have premium payment periods shorter than the period over which coverage is provided. For these contracts, the excess of premium over the amount required to pay expenses and benefits is recognized over the term of the coverage rather than over the premium payment period.

We establish a liability for traditional long-duration contracts as we receive premiums. The amount of this liability is the present value of future expenses and benefits less the present value of future net premiums. Net premium is the portion of gross premium required to provide for all expenses and benefits. We estimate future expenses and benefits and net premium using assumptions for expected expenses, mortality, morbidity, withdrawal rates and investment income. We include a provision for deviation, meaning we allow for some uncertainty in making our assumptions. We establish our assumptions when the contract is issued, and we generally maintain those assumptions for the life of the contract. We use both our own experience and industry experience, adjusted for historical trends, in arriving at our assumptions for expected mortality, morbidity and withdrawal rates. We use our own experience and historical trends for setting our assumption for expected expenses. We base our assumption for expected investment income on our own experience, adjusted for current and future economic conditions.

We capitalize acquisition costs for traditional long-duration contracts. We charge these capitalized costs associated with successfully acquiring traditional long-duration contract insurance policies in proportion to premium revenue recognized. We use the same assumptions used in establishing the liability for the contract. We update our acquisition cost assumptions periodically to reflect actual experience, and we evaluate our deferred acquisition costs for recoverability.

Universal life contracts are long-duration contracts for which contractual provisions are not fixed, unlike whole life insurance. Universal life contracts allow policyholders to vary the amount of premium, within limits, without our consent. However, we may vary the mortality, expense charges and the interest crediting rate, within limits, used to accumulate policy values. We do not record universal life premiums as revenue. Instead we recognize as revenue the mortality charges, administration charges and surrender charges when received. Some of our universal life contracts assess administration charges in the early years of the contract that are compensation for services we will provide in the later years of the contract. These administration charges are deferred and are recognized over the period when we provide those future services. We maintain a policy reserve liability equal to the policyholder account value. There is no provision for adverse deviation. Some of our universal life policies contain no-lapse guarantee provisions. For these policies, we establish a reserve in addition to the account balance, based on expected no-lapse guarantee benefits and expected policy assessments.

We capitalize acquisition costs associated with successfully acquiring universal life long-duration contracts. We charge these capitalized costs to expenses over the term of coverage of the contract in accordance with the recognition of gross profit from the contract or notional benefit base. When we charge deferred policy acquisition costs to expenses, we use assumptions based on our best estimates of long-term experience. We review and modify these assumptions on a regular basis.

An allowance for credit losses on uncollectible life insurance premiums is updated and reviewed on a quarterly basis. The allowance, including changes in the amount during 2020, was immaterial to our consolidated financial condition, results of operations and cash flows.

Separate Accounts

We have issued universal life contracts with guaranteed minimum returns, referred to as bank-owned life insurance contracts (BOLIs). A BOLI is designed so the bank is the policy owner and the policy beneficiary. We legally segregate and record as separate accounts the assets and liabilities for some of our BOLIs, based on the specific contract provisions. We guarantee minimum investment returns, account values and death benefits for our separate account BOLIs. Our other BOLIs are general account products.

We carry the assets of separate account BOLIs at fair value. The liabilities on separate account BOLIs primarily are the contract holders' claims to the related assets and are carried at an amount equal to the contract holders' account value. At December 31, 2020 and 2019, the current fair value of the BOLI invested assets and cash exceeded the current fair value of the contract holders' account value by approximately \$99 million and \$52 million, respectively. If the BOLI projected fair value were to fall below the value we guaranteed, a liability would be established with a corresponding charge to the company's earnings.

Generally, investment income and investment gains and losses of the separate accounts accrue directly to the contract holder, and we do not include them in the consolidated statements of income. Revenues and expenses related to separate accounts consist of contractual fees and mortality, surrender and expense risk charges. Also, each separate account BOLI includes a negotiated capital gain and loss sharing arrangement between the company and the bank. A percentage of each separate account's investment gains and losses representing contract fees and assessments accrues to us and is transferred from the separate account to our general account and is recognized as revenue or expense. We record as revenues separate account investment management fees in fee revenues of the consolidated statements of income.

Reinsurance

The Cincinnati Insurance Company offers reinsurance assumed for casualty (predominantly domestic exposure), specialty and property (worldwide exposure). Treaties are written on a pro rata and excess of loss basis. We also continue to assume risk with limited exposure as a reinsurer for involuntary state pools.

Written premium is recorded, net of contract specific retrocessions, on an ultimate estimate basis and primarily earned on a pro rata basis over the coverage period of the treaty. Expenses are recorded as per contract terms and deferred over the earning period of the premium.

We establish known loss reserves when reported. We establish reserves for losses in excess of reported activity in the form of IBNR. Reserves are established using actuarial analysis, which includes models and methods traditionally used for the types of exposures written. We establish reserves for event specific occurrences using modeling data and company specific data when available.

We enter into other reinsurance transactions to reduce risk and uncertainty by buying property casualty reinsurance and retrocessional reinsurance as well as life reinsurance. Reinsurance and retrocessional reinsurance contracts do not relieve us from our obligation to policyholders, but rather help protect our financial strength to perform that duty. All of these ceded reinsurance contracts transfer the economic risk of loss.

Premiums that we cede are deferred and recorded as earned premiums on a pro rata basis over the terms of the contracts. We estimate loss amounts recoverable from our reinsurers based on the reinsurance policy terms. Historically, our claims with reinsurers have been paid.

An allowance for credit losses on uncollectible reinsurance premiums and recoverable assets is updated and reviewed on a quarterly basis. The allowances, including changes in the amounts during 2020, were immaterial to our consolidated financial condition, results of operations and cash flows.

Income Taxes

We calculate deferred income tax liabilities and assets using tax rates in effect when temporary differences in the consolidated financial statement income and taxable income are expected to reverse. We recognize deferred income taxes for numerous temporary differences between our taxable income and consolidated financial statement income and other changes in shareholders' equity. Such temporary differences relate primarily to unrealized gains and losses on investments and differences in the recognition of deferred acquisition costs, unearned premiums, insurance reserves and basis differences in the carrying value of investments held. We charge deferred income taxes associated with balances that impact other comprehensive income, such as unrealized gains and losses of fixed-maturity investments, to shareholders' equity in accumulated other comprehensive income (AOCI). We charge deferred taxes associated with other differences to income.

See Note 11, Income Taxes, for further detail on our uncertain tax positions and other income tax items. Although no Internal Revenue Service (IRS) penalties currently are accrued, if incurred, they would be recognized as a component of income tax expense.

Earnings per Share

Net income per common share is based on the weighted average number of common shares outstanding during each of the respective years. We calculate net income per common share (diluted) assuming the exercise or conversion of share-based awards using the treasury stock method.

Land, Building and Equipment

We record land at cost, and record building and equipment at cost less accumulated depreciation. Equipment held under finance leases also is classified as property and equipment with the related lease obligations recorded as liabilities. We capitalize and amortize costs for internally developed computer software during the application development stage. These costs generally consist of external consulting, internal payroll and payroll-related costs. Our depreciation is based on estimated useful lives (ranging from three to 39.5 years) using straight-line and accelerated methods. Depreciation expense was \$33 million for 2020, \$25 million for 2019 and \$31 million for 2018. We review our accumulated depreciation for our building, equipment and software assets and write off fully depreciated assets for obsolescence and nonuse. We monitor land, building and equipment and software assets for potential impairments. Indicators of potential impairments may include a significant decrease in the fair values of the assets, considerable cost overruns on projects, a change in legal factors or business climate or other factors that indicate that the carrying amount may not be recoverable or useful. There were no recorded land, building and equipment impairments for 2020, 2019 or 2018.

Finance Receivables

Our leasing subsidiary provides auto and equipment direct financing (leases and loans) to commercial and individual clients. We generally transfer ownership of the property to the client as the terms of the leases expire. Our lease contracts contain bargain purchase options. We account for these leases and loans as sales-type leases. We capitalize and amortize lease or loan origination costs over the life of the financing, using the effective interest method. These costs may include, but are not limited to finder fees, broker fees, filing fees and the cost of credit reports. We record income as other revenues over the financing term using the effective interest method in the consolidated statements of income. An allowance for credit losses on finance receivables is updated and reviewed on a quarterly basis. The allowance, including changes in the amount during 2020, was immaterial to our consolidated financial condition, results of operations and cash flows.

Employee Benefit Pension Plan

We sponsor a qualified defined benefit pension plan that was modified during 2008. We closed entry into the pension plan, and only participants 40 years of age or older could elect to remain in the plan. Our pension expenses are based on certain actuarial assumptions and also are composed of several components that are determined using the projected unit credit actuarial cost method. Refer to Note 13, Employee Retirement Benefits, for more information about our defined benefit pension plan.

Share-Based Compensation

We grant qualified and nonqualified share-based compensation under authorized plans. The stock options generally vest on a graded scale over three years following the date of grant and are exercisable over 10-year periods. We grant service-based restricted stock units that cliff vest three years after the date of grant as well as service-based restricted stock units that vest ratably over the three-year vesting term. We also grant performance-based restricted stock units that vest if certain market conditions are attained. In 2020, the CFC compensation committee approved share-based awards including incentive stock options, nonqualified stock options, service-based restricted and performance-based restricted stock units. See Note 17, Share-Based Associate Compensation Plans, for further details.

Goodwill and Intangible Assets

We recognize goodwill and intangible assets generated through acquisitions within other assets in the consolidated balance sheets. Goodwill arises when the fair value of consideration transferred exceeds the fair value of the net identifiable assets acquired at the acquisition date. Goodwill and intangible assets with an indefinite life are not amortized. Intangible assets with a definite life are amortized on a straight-line basis over the estimated useful lives as follows: broker relationships, 15 years; internally developed technology, five years; value of business acquired, over the remaining coverage period of the underlying insurance contracts, which expired during 2020. We test for impairments on an annual basis or more frequently if events or circumstances indicate that the asset might be impaired. The company performed its annual impairment test on goodwill and intangibles on September 30, which did not result in the recognition of an impairment loss. The company held goodwill of \$30 million and intangible assets with an indefinite life of \$31 million at December 31, 2020 and 2019, respectively.

Subsequent Events

There were no subsequent events requiring adjustment to the consolidated financial statements or disclosure.

Adopted Accounting Updates

ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments

In June 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, as well as additional implementation related ASU's in 2018, 2019 and 2020. These ASU's amend previous guidance on the impairment of financial instruments by adding an impairment model that allows an entity to recognize expected credit losses as an allowance rather than impairing as they are incurred. The new guidance is intended to reduce the complexity of credit impairment models and result in a more timely recognition of expected credit losses. The standards require the company to consider all relevant information at the time of estimating the expected credit loss, including past events, the current environment, and reasonable and supportable forecasts over the life of the asset.

These ASU's also eliminated the other-than-temporary impairment model for available for sale fixed-maturity securities by requiring that credit-related impairments be recognized through an allowance account. Changes in the allowance account are recorded in the period of change as a credit loss expense or reversal of credit loss expense. The measurement of credit losses is not impacted, except that credit losses recognized are limited to the amount by which fair value is below amortized cost and that the length of time that a security has been below amortized cost cannot be considered. These ASU's retain the guidance requiring that impaired securities intended to be sold have their amortized cost basis written down to fair value through net income.

The company adopted these ASU's on January 1, 2020, and applied them on a modified retrospective basis. As a result of this adoption, an after-tax cumulative effect decrease of \$2 million was made to retained earnings representing an increase to the overall valuation allowances for financial instruments measured at amortized cost. These ASU's were applied to available for sale fixed-maturity securities prospectively with no adjustments to the amortized cost basis of securities for which an other-than-temporary impairment had been previously recognized. The company has elected not to measure expected credit losses for accrued interest receivables related to its finance receivables and fixed-maturity securities.

Pending Accounting Updates

ASU 2018-12, Financial Services - Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts

In August 2018, the FASB issued ASU 2018-12, *Financial Services - Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts*. ASU 2018-12 is intended to improve the timeliness of recognizing changes in the liability for future policy benefits and modify the rate used to discount future cash flows. The ASU will simplify and improve the accounting for certain market-based options or guarantees associated with deposit or account balance contracts and simplify amortization of deferred acquisition costs while improving and expanding required disclosures. In November 2020, the FASB issued an ASU that delayed the effective date of ASU 2018-12 to interim and annual reporting periods beginning after December 15, 2022. These ASU's have not yet been adopted. Management is currently evaluating the impact on our company's consolidated financial condition, results of operations and cash flows.

NOTE 2 – Investments

The following table provides amortized cost, gross unrealized gains, gross unrealized losses and fair value for our fixed-maturity securities:

(Dollars in millions)

	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
At December 31, 2020				
Fixed-maturity securities:				
Corporate	\$ 6,281	\$ 621	\$ 7	\$ 6,895
States, municipalities and political subdivisions	4,604	395	2	4,997
Commercial mortgage-backed	271	15	1	285
United States government	115	5	—	120
Foreign government	29	—	—	29
Government-sponsored enterprises	12	—	—	12
Total	<u>\$ 11,312</u>	<u>\$ 1,036</u>	<u>\$ 10</u>	<u>\$ 12,338</u>
At December 31, 2019				
Fixed-maturity securities:				
Corporate	\$ 6,074	\$ 332	\$ 5	\$ 6,401
States, municipalities and political subdivisions	4,477	252	1	4,728
Commercial mortgage-backed	290	11	—	301
United States government	102	2	—	104
Foreign government	28	—	—	28
Government-sponsored enterprises	137	—	1	136
Total	<u>\$ 11,108</u>	<u>\$ 597</u>	<u>\$ 7</u>	<u>\$ 11,698</u>

The net unrealized investment gains in our fixed-maturity portfolio at December 31, 2020, are primarily the result of the continued low interest rate environment that increased the fair value of our fixed-maturity portfolio. Our commercial mortgage-backed securities had an average rating of Aa1/AA at December 31, 2020 and 2019.

The table below provides fair values and unrealized losses by investment category and by the duration of the securities' continuous unrealized loss positions:

(Dollars in millions)

	Less than 12 months		12 months or more		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
At December 31, 2020						
Fixed-maturity securities:						
Corporate	\$ 330	\$ 5	\$ 46	\$ 2	\$ 376	\$ 7
States, municipalities and political subdivisions	31	2	2	—	33	2
Commercial mortgage-backed	23	1	6	—	29	1
United States government	12	—	—	—	12	—
Foreign government	10	—	—	—	10	—
Total	<u>\$ 406</u>	<u>\$ 8</u>	<u>\$ 54</u>	<u>\$ 2</u>	<u>\$ 460</u>	<u>\$ 10</u>
At December 31, 2019						
Fixed-maturity securities:						
Corporate	\$ 199	\$ 2	\$ 118	\$ 3	\$ 317	\$ 5
States, municipalities and political subdivisions	98	1	10	—	108	1
Commercial mortgage-backed	6	—	—	—	6	—
United States government	—	—	4	—	4	—
Foreign government	11	—	—	—	11	—
Government-sponsored enterprises	26	1	51	—	77	1
Total	<u>\$ 340</u>	<u>\$ 4</u>	<u>\$ 183</u>	<u>\$ 3</u>	<u>\$ 523</u>	<u>\$ 7</u>

Contractual maturity dates for fixed-maturity investments were:

(Dollars in millions)

At December 31, 2020	Amortized cost	Fair value	% of fair value
Maturity dates:			
Due in one year or less	\$ 581	\$ 589	4.8 %
Due after one year through five years	3,450	3,697	30.0
Due after five years through ten years	3,789	4,178	33.9
Due after ten years	3,492	3,874	31.3
Total	<u>\$ 11,312</u>	<u>\$ 12,338</u>	<u>100.0 %</u>

Actual maturities may differ from contractual maturities when there is a right to call or prepay obligations with or without call or prepayment penalties.

At December 31, 2020 and 2019, the company had fixed-maturity investments with a fair value of \$121 million and \$117 million, respectively, on deposit with various states in compliance with regulatory requirements. In addition, cash and fixed-maturity investments deposited with third parties used as collateral to secure liabilities on behalf of insureds, cedants and other creditors had a fair value of \$98 million and \$95 million at December 31, 2020 and 2019, respectively.

In the normal course of investing activities, the company enters into investments in limited partnerships, including private equity, real estate investments and asset-backed securities issued by third-parties. The company's maximum exposure to loss with respect to these investments is limited to the investment carrying values included in the company's consolidated balance sheets and any unfunded commitments.

The following table provides investment income and investment gains and losses:

(Dollars in millions)

	Years ended December 31,		
	2020	2019	2018
Investment income:			
Interest	\$ 455	\$ 446	\$ 445
Dividends	220	201	181
Other	8	12	5
Total	<u>683</u>	<u>659</u>	<u>631</u>
Less investment expenses	13	13	12
Total	<u>\$ 670</u>	<u>\$ 646</u>	<u>\$ 619</u>
Investment gains and losses, net:			
Equity securities:			
Investment gains and losses on securities sold, net	\$ 79	\$ 26	\$ 9
Unrealized gains and losses on securities still held, net	841	1,626	(404)
Subtotal	<u>920</u>	<u>1,652</u>	<u>(395)</u>
Fixed-maturity securities:			
Gross realized gains	16	13	12
Gross realized losses	(3)	(3)	(2)
Write-down of impaired securities	(78)	(9)	(5)
Subtotal	<u>(65)</u>	<u>1</u>	<u>5</u>
Other	10	(3)	(12)
Total	<u>\$ 865</u>	<u>\$ 1,650</u>	<u>\$ (402)</u>

The fair value of our equity portfolio was \$8.856 billion and \$7.752 billion at December 31, 2020 and 2019, respectively. At December 31, 2020 and 2019, Apple, Inc. (Nasdaq:AAPL), an equity holding, was our largest single investment holding with a fair value of \$644 million and \$414 million, which was 7.5% and 5.5% of our publicly traded common equities portfolio and 3.0% and 2.1% of the total investment portfolio, respectively.

During 2020, there were no fixed-maturity securities with an allowance for credit losses. There were 14 fixed-maturity securities that were written down to fair value, due to an intention to be sold, for holdings in the energy, real estate, consumer goods, municipal and technology & electronics sectors. At December 31, 2020, 128 fixed-maturity investments with a total unrealized loss of \$10 million were in an unrealized loss position. Of that total, no fixed-maturity investments had fair values below 70% of amortized cost.

During 2019, we other-than-temporarily impaired three securities. At December 31, 2019, 38 fixed-maturity investments with a total unrealized loss of \$3 million had been in an unrealized loss position for 12 months or more. Of that total, no fixed-maturity investments had fair values below 70% of amortized cost.

During 2018, we other-than-temporarily impaired one security. At December 31, 2018, 400 fixed-maturity investments with a total unrealized loss of \$58 million had been in an unrealized loss position for 12 months or more. Of that total, no fixed-maturity investments had fair values below 70% of amortized cost.

NOTE 3 – Fair Value Measurements

Fair Value Hierarchy

The fair value hierarchy gives the highest priority to quoted prices with readily available independent data in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable market inputs (Level 3). When various inputs for measurement fall within different levels of the fair value hierarchy, the lowest observable input that has a significant impact on fair value measurement is used. Our valuation techniques have not changed from those used at December 31, 2019, and ultimately management determines fair value. Financial instruments reported at fair value in our consolidated financial statements are categorized based upon the following characteristics or inputs to the valuation techniques:

Level 1 – Financial assets and liabilities for which inputs are observable and are obtained from reliable quoted prices for identical assets or liabilities in active markets. This is the most reliable fair value measurement and includes, for example, active exchange-traded equity securities.

Level 2 – Financial assets and liabilities for which values are based on quoted prices in markets that are not active or for which values are based on similar assets and liabilities that are actively traded. This also includes pricing models for which the inputs are corroborated by market data.

The technique used for the Level 2 fixed-maturity securities is the application of market based modeling. The inputs used for all classes of fixed-maturity securities listed in the table below include relevant market information by asset class, trade activity of like securities, marketplace quotes, benchmark yields, spreads off benchmark yields, interest rates, U.S. Treasury or swap curves, yield to maturity and economic events. Specific to commercial mortgage-backed securities, key inputs also include prepayment and default projections based on past performance of the underlying collateral and current market data. Level 2 fixed-maturity securities are priced by a nationally recognized pricing vendor.

The Level 2 nonredeemable preferred equities technique used is the application of market based modeling. The inputs used, similar to those used by the pricing vendor for our fixed-maturity securities, include relevant market information, trade activity of like securities, yield to maturity, corporate action notices and economic events. Level 2 nonredeemable preferred equities are priced by a nationally recognized pricing vendor.

Level 3 – Financial assets and liabilities for which values are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. Level 3 inputs include the following:

- Quotes from brokers or other external sources that are not considered binding;
- Quotes from brokers or other external sources where it cannot be determined that market participants would in fact transact for the asset or liability at the quoted price; or
- Quotes from brokers or other external sources where the inputs are not deemed observable.

The following tables illustrate the fair value hierarchy for those assets measured at fair value on a recurring basis at December 31, 2020 and 2019. We do not have any liabilities carried at fair value. There were no transfers between Level 1 and Level 2.

(Dollars in millions)

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
At December 31, 2020				
Fixed maturities, available for sale:				
Corporate	\$ —	\$ 6,895	\$ —	\$ 6,895
States, municipalities and political subdivisions	—	4,997	—	4,997
Commercial mortgage-backed	—	285	—	285
United States Government	120	—	—	120
Foreign government	—	29	—	29
Government-sponsored enterprises	—	12	—	12
Subtotal	120	12,218	—	12,338
Common equities	8,541	—	—	8,541
Nonredeemable preferred equities	—	315	—	315
Separate accounts taxable fixed maturities	—	903	—	903
Top Hat savings plan mutual funds and common equity (included in Other assets)	51	—	—	51
Total	\$ 8,712	\$ 13,436	\$ —	\$ 22,148
At December 31, 2019				
Fixed maturities, available for sale:				
Corporate	\$ —	\$ 6,401	\$ —	\$ 6,401
States, municipalities and political subdivisions	—	4,728	—	4,728
Commercial mortgage-backed	—	301	—	301
United States Government	104	—	—	104
Foreign government	—	28	—	28
Government-sponsored enterprises	—	136	—	136
Subtotal	104	11,594	—	11,698
Common equities	7,518	—	—	7,518
Nonredeemable preferred equities	—	234	—	234
Separate accounts taxable fixed maturities	—	855	—	855
Top Hat savings plan mutual funds and common equity (included in Other assets)	45	—	—	45
Total	\$ 7,667	\$ 12,683	\$ —	\$ 20,350

We also held Level 1 cash and cash equivalents of \$900 million and \$767 million at December 31, 2020 and 2019, respectively. Level 3 assets reported at fair value in our consolidated financial statements are not material, and therefore no further disclosures are provided.

Fair Value Disclosure for Assets and Liabilities Not Carried at Fair Value

The disclosures below are presented to provide information about the effects of current market conditions on financial instruments that are not reported at fair value in our consolidated financial statements.

The following table shows fair values of our note payable and long-term debt:

(Dollars in millions)								
	Quoted prices in active markets for identical assets (Level 1)		Significant other observable inputs (Level 2)		Significant unobservable inputs (Level 3)	Total		
At December 31, 2020								
Note payable	\$	—	\$	54	\$	—	\$	54
6.900% senior debentures, due 2028		—		35		—		35
6.920% senior debentures, due 2028		—		515		—		515
6.125% senior notes, due 2034		—		522		—		522
Total	\$	—	\$	1,126	\$	—	\$	1,126
At December 31, 2019								
Note payable	\$	—	\$	39	\$	—	\$	39
6.900% senior debentures, due 2028		—		34		—		34
6.920% senior debentures, due 2028		—		506		—		506
6.125% senior notes, due 2034		—		512		—		512
Total	\$	—	\$	1,091	\$	—	\$	1,091

Fair value of the note payable was determined based upon the outstanding balance at December 31, 2020 and 2019, because it is short term and tied to a variable interest rate. Fair value of the long-term debt was determined under the fair value measurements and disclosure accounting rules based on market pricing of similar debt instruments that are actively trading. We determine fair value for our debt the same way that we value corporate fixed maturities in our investment portfolio. Fair value can vary with macroeconomic conditions. Regardless of the fluctuations in fair value, the outstanding principal amount of our long-term debt is \$793 million at both December 31, 2020 and 2019. None of the long-term debt is encumbered by rating triggers. The note payable and long-term debt were classified as Level 2 as an active market does not exist, but fair value is determined based on observable inputs.

The following table shows the fair value of our life policy loans, included in other invested assets:

(Dollars in millions)				
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
At December 31, 2020				
Life policy loans	\$ —	\$ —	\$ 49	\$ 49
At December 31, 2019				
Life policy loans	\$ —	\$ —	\$ 44	\$ 44

Outstanding principal and interest for these life policy loans totaled \$33 million and \$32 million at December 31, 2020 and 2019, respectively. To determine the fair value, we make the following significant assumptions: (1) the discount rates used to calculate the present value of expected payments are the risk-free spot rates, as nonperformance risk is minimal; and (2) the loan repayment rate by which policyholders pay off their loan balances is in line with past experience.

The following table shows fair value of our deferred annuities and structured settlements included in life policy and investment contract reserves:

(Dollars in millions)

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
At December 31, 2020				
Deferred annuities	\$ —	\$ —	\$ 836	\$ 836
Structured settlements	—	227	—	227
Total	\$ —	\$ 227	\$ 836	\$ 1,063
At December 31, 2019				
Deferred annuities	\$ —	\$ —	\$ 770	\$ 770
Structured settlements	—	212	—	212
Total	\$ —	\$ 212	\$ 770	\$ 982

Recorded reserves for the deferred annuities were \$761 million and \$760 million at December 31, 2020 and 2019, respectively. Recorded reserves for the structured settlements were \$145 million and \$151 million at December 31, 2020 and 2019, respectively.

Fair values for deferred annuities were calculated based upon internally developed models because active markets and observable inputs do not exist. To determine the fair value, we made the following significant assumptions: (1) the discount rates used to calculate the present value of expected payments are the risk-free spot rates plus an A3 rated bond spread for financial issuers at December 31, 2020 and 2019, to account for nonperformance risk; (2) the rate of interest credited to policyholders is the portfolio net earned interest rate less a spread for expenses and profit; and (3) additional lapses occur when the credited interest rate is exceeded by an assumed competitor credited rate, which is a function of the risk-free rate of the economic scenario being modeled.

Fair values for structured settlements were calculated based on internally developed models which assume the discount rates used to calculate the present value of expected payments are the risk-free spot rates plus an A3 rated bond spread for financial issuers at December 31, 2020 and 2019, to account for nonperformance risk. The structured settlements were classified as Level 2 as an active market does not exist, but fair value is based on observable inputs.

NOTE 4 – Property Casualty Loss and Loss Expenses

We use actuarial methods, models, assumptions and judgment to estimate, as of a financial statement date, the property casualty loss and loss expense reserves required to pay for and settle all outstanding insured claims, including IBNR claims, as of that date. The actuarial estimate is subject to review and adjustment by an inter-departmental committee that includes actuarial, claims, underwriting, loss prevention and finance management. This committee is familiar with relevant company and industry business, claims and underwriting trends, as well as general economic and legal trends that could affect future loss and loss expense payments. The amount we will actually have to pay for claims can be highly uncertain. This uncertainty, together with the size of our reserves, makes the loss and loss expense reserves our most significant estimate.

Our reserving process takes into account known facts and interpretations of circumstances and factors including the type of claim, policy provisions pertaining to each claim, potential subrogation or salvage recoverable, large loss activity and trends, new business activity, judicial decisions, economic conditions, changes in law and regulation and product and underwriting changes. There have been no significant changes in methodologies and assumptions used in calculating loss and loss expense reserves for all years presented. There were no material additional premiums or return premiums accrued for as a result of prior-year effects. Our claims representatives establish case reserves when claims are reported to provide for our unpaid loss and loss expense obligation associated with individual claims.

For events designated as natural catastrophes resulting in losses incurred related to direct premiums, we calculate IBNR reserves directly as a result of an estimated claim counts and estimated average dollar amount per claim for each event. Once individual case reserves are established for a catastrophe event, we reduce the IBNR reserves.

Our actuarial staff uses generally accepted actuarial methods and models to derive ultimate loss and IBNR reserve estimates. The time interval between a claims occurrence and its settlement is one of the crucial attributes when estimating ultimate losses and IBNR reserves.

Due to the uncertainties inherent with loss reserves, our ultimate loss experience could prove better or worse than what our carried reserves reflect. To the extent that reserves are inadequate and are required to be increased, the amount of the increase is a charge in that period, raising our loss and loss expense ratio and reducing earnings. To the extent that reserves are redundant and are required to be released, the amount of the release is a credit in that period, reducing our loss and loss expense ratio and increasing earnings.

This table summarizes activity for our consolidated property casualty loss and loss expense reserves:

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Gross loss and loss expense reserves, January 1	\$ 6,088	\$ 5,646	\$ 5,219
Less reinsurance recoverable	342	238	187
Net loss and loss expense reserves, January 1	5,746	5,408	5,032
Net loss and loss expense reserves related to acquisition of Cincinnati Global at February 28, 2019	—	246	—
Net incurred loss and loss expenses related to:			
Current accident year	3,968	3,600	3,390
Prior accident years	(131)	(248)	(167)
Total incurred	3,837	3,352	3,223
Net paid loss and loss expenses related to:			
Current accident year	1,493	1,462	1,391
Prior accident years	1,690	1,798	1,456
Total paid	3,183	3,260	2,847
Net loss and loss expense reserves, December 31	6,400	5,746	5,408
Plus reinsurance recoverable	277	342	238
Gross loss and loss expense reserves, December 31	\$ 6,677	\$ 6,088	\$ 5,646

In 2020, 2019 and 2018, the reserve for loss and loss expense in the consolidated balance sheets also included \$69 million, \$59 million and \$61 million, respectively, for certain life and health loss and loss expense reserves. Additional disclosures for reserves related to these health claims are not material and therefore not provided.

During 2020, we experienced \$131 million of favorable development on prior accident years including \$95 million of favorable development in commercial lines, \$18 million of favorable development in personal lines and \$7 million of unfavorable development in excess and surplus lines. Within commercial lines, we recognized favorable development of \$54 million for the commercial casualty line, \$39 million for the workers' compensation line and \$16 million for the commercial property line due to reduced uncertainty of prior accident year loss and loss expense for these lines. This was partially offset by unfavorable development of \$17 million for the commercial auto line. Within personal lines, we recognized favorable reserve development of \$15 million in personal auto and \$5 million for the homeowner line of business.

During 2019, we experienced \$248 million of favorable development on prior accident years including \$192 million of favorable development in commercial lines, \$27 million of favorable development in personal lines and \$11 million of favorable development in excess and surplus lines. Within commercial lines, we recognized favorable development of \$78 million for the commercial casualty line, \$77 million for the workers' compensation line, \$25 million for the commercial property line and \$6 million for the commercial auto line due to reduced uncertainty of prior accident year loss and loss expense for these lines. Within personal lines, we recognized favorable reserve development of \$26 million in personal auto. We recognized unfavorable reserve development of \$11 million for the homeowner line of business due primarily to higher-than-anticipated loss development on known claims.

During 2018, we experienced \$167 million of favorable development on prior accident years including \$157 million of favorable development in commercial lines, \$13 million of unfavorable development in personal lines, \$24 million of favorable development in excess and surplus lines and \$1 million of unfavorable development in our reinsurance assumed operations. We recognized favorable development of \$58 million for the workers' compensation line and \$47 million for both the commercial property line and commercial casualty line due to reduced uncertainty of prior accident year loss and loss expense for these lines.

Included in our lines of business are asbestos and environmental claims. We carried \$85 million of net loss and loss expense reserves for asbestos and environmental claims at December 31, 2020 and 2019. The asbestos and environmental claims amounts for each respective year constituted less than 2.0% of total net loss and loss expense reserves at these year-end dates. We believe our exposure to asbestos and environmental claims is limited, largely because our reinsurance retention was \$500,000 or below prior to 1987. We also were predominantly a personal lines company in the 1960s and 1970s. During the 1980s and early 1990s, commercial lines grew as a percentage of our overall business and our exposure to asbestos and environmental claims grew accordingly. Over that period, we included an asbestos and environmental exclusion in almost all policies or endorsed the exclusion to the policies. We have no exposure to asbestos and environmental claims related to our acquisition of Cincinnati Global. We continue to monitor our claims for evidence of material exposure to other mass tort classes but have found no such credible evidence to date.

The following table provides a reconciliation of the property casualty incurred losses and allocated loss adjustment expenses (ALAE) development and paid losses and ALAE development information at December 31, 2020.

(Dollars in millions)

	Cumulative incurred losses and ALAE as reported within the triangles, net of reinsurance	Cumulative paid losses and ALAE as reported within the triangles, net of reinsurance	Liabilities for loss and ALAE for accident years not presented in the triangles, net of reinsurance	Total liabilities for loss and ALAE, net of reinsurance	Reinsurance recoverable on unpaid losses	Total liabilities for gross loss and loss expense reserves
Commercial casualty	\$ 5,179	\$ 3,012	\$ 91	\$ 2,258	\$ 24	\$ 2,282
Workers' compensation	1,990	1,357	308	941	61	1,002
Commercial auto	2,235	1,581	26	680	5	685
Commercial property	3,158	2,725	15	448	66	514
Personal auto	1,860	1,610	10	260	32	292
Homeowner	1,996	1,781	4	219	18	237
Excess and surplus	836	430	1	407	16	423
Other lines						959
Total liabilities for loss and ALAE reserves						6,394
Unallocated loss adjustment expense reserves						283
Gross loss and loss expense reserves						\$ 6,677

For all lines of business, the claim counts reported are primarily measured by insurance coverages that are triggered when a loss occurs and a reserve is established. For this purpose, coverages are defined as unique combinations of certain attributes such as line of business and cause of loss. Claims that are opened and closed without payment are included in the reported claim counts. Claim counts are presented on a direct basis only and do not reflect any assumed or ceded reinsurance.

In the following tables, commercial casualty, workers' compensation and excess and surplus lines each disclose 10 accident years of loss and ALAE reserves and the cumulative number of reported claims. Commercial auto, commercial property, personal auto and homeowner each disclose five accident years of loss and ALAE reserves and the cumulative number of reported claims as each of these lines have five year cumulative average annual percentage payouts of approximately 95% or higher.

Commercial Casualty

The following table shows the commercial casualty incurred and paid losses and ALAE development by accident year. The table also shows the IBNR reserves plus expected development on reported losses and claim frequency:

(Dollars in millions, reported claims in thousands)											As of December 31, 2020	
Incurred losses and ALAE, net of reinsurance for the years ended December 31,											Total of incurred but not reported liabilities plus expected development on reported losses	Cumulative number of reported claims
Accident Year	Unaudited											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
2011	\$ 466	\$ 404	\$ 377	\$ 377	\$ 375	\$ 380	\$ 366	\$ 365	\$ 368	\$ 361	\$ —	19
2012		466	414	417	394	394	404	399	397	397	11	18
2013			448	443	431	416	413	407	391	386	22	20
2014				503	496	479	476	479	465	469	27	21
2015					533	526	529	516	508	502	54	21
2016						563	574	557	555	554	89	21
2017							610	597	577	571	124	21
2018								650	641	622	181	22
2019									672	643	293	19
2020										674	472	11
Total										\$ 5,179		
Cumulative paid losses and ALAE, net of reinsurance												
2011	\$ 27	\$ 93	\$ 149	\$ 227	\$ 266	\$ 298	\$ 315	\$ 325	\$ 337	\$ 342		
2012		27	88	170	232	288	330	346	364	374		
2013			35	90	159	232	286	312	337	348		
2014				34	97	172	287	338	390	409		
2015					38	108	200	287	362	404		
2016						46	126	228	331	395		
2017							48	122	234	320		
2018								44	148	253		
2019									39	134		
2020										33		
Total										3,012		
All outstanding liabilities before 2011, net of reinsurance											91	
Liabilities for loss and ALAE, net of reinsurance											\$ 2,258	

The following table shows the average annual percentage payout of incurred losses for the commercial casualty line of business:

Average annual percentage payout of incurred losses by age, net of reinsurance (unaudited)											
Years	1	2	3	4	5	6	7	8	9	10	
Average annual percentage payout	7.3%	14.9%	17.9%	18.8%	12.7%	9.1%	4.8%	3.5%	3.0%	1.7%	

Workers' Compensation

The following table shows the workers' compensation incurred and paid losses and ALAE development by accident year. The table also shows the IBNR reserves plus expected development on reported losses and claim frequency:

(Dollars in millions, reported claims in thousands)											As of December 31, 2020	
Incurred losses and ALAE, net of reinsurance for the years ended December 31,											Total of incurred but not reported liabilities plus expected development on reported losses	Cumulative number of reported claims
Accident Year	Unaudited											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
2011	\$ 284	\$ 251	\$ 246	\$ 242	\$ 239	\$ 236	\$ 231	\$ 229	\$ 228	\$ 228	\$ 17	24
2012		265	245	234	220	213	211	209	208	207	19	21
2013			264	246	221	212	208	205	202	201	12	20
2014				261	233	214	203	201	198	197	13	19
2015					246	220	208	195	179	173	26	17
2016						230	218	206	188	183	27	16
2017							218	208	190	183	46	15
2018								222	207	199	52	15
2019									224	215	65	14
2020										204	100	10
Total										\$ 1,990		
Cumulative paid losses and ALAE, net of reinsurance												
2011	\$ 65	\$ 131	\$ 161	\$ 177	\$ 186	\$ 190	\$ 192	\$ 195	\$ 197	\$ 198		
2012		62	121	147	162	171	175	178	180	182		
2013			61	119	144	157	164	168	170	174		
2014				56	110	134	148	157	162	165		
2015					47	93	115	129	134	137		
2016						46	97	119	131	141		
2017							45	88	106	114		
2018								48	95	115		
2019									49	94		
2020										37		
Total										1,357		
All outstanding liabilities before 2011, net of reinsurance											308	
Liabilities for loss and ALAE, net of reinsurance											\$ 941	

The following table shows the average annual percentage payout of incurred losses for the workers' compensation line of business:

Average annual percentage payout of incurred losses by age, net of reinsurance (unaudited)										
Years	1	2	3	4	5	6	7	8	9	10
Average annual percentage payout	25.9%	26.3%	11.9%	6.7%	4.1%	2.0%	1.4%	1.2%	1.1%	0.5%

Commercial Auto

The following table shows the commercial auto incurred and paid losses and ALAE development by accident year. The table also shows the IBNR reserves plus expected development on reported losses and claim frequency:

(Dollars in millions, reported claims in thousands)								As of December 31, 2020					
Incurred losses and ALAE, net of reinsurance for the years ended December 31,								Total of incurred but not reported liabilities plus expected development on reported losses	Cumulative number of reported claims				
Accident	Unaudited												
Year	2016		2017		2018		2019			2020			
2016	\$	417	\$	430	\$	450	\$	463	\$	474	\$	5	53
2017				451		441		443		444		13	51
2018						453		442		442		36	49
2019								452		451		73	46
2020										424		164	33
Total									\$	2,235			
Cumulative paid losses and ALAE, net of reinsurance													
2016	\$	184	\$	273	\$	350	\$	408	\$	441			
2017				187		266		334		381			
2018						184		266		337			
2019								183		268			
2020										154			
Total										1,581			
All outstanding liabilities before 2016, net of reinsurance										26			
Liabilities for loss and ALAE, net of reinsurance										\$	680		

The following table shows the average annual percentage payout of incurred losses for the commercial auto line of business. Commercial auto includes both physical damage and liability losses. A majority of the incurred losses paid after year 2 are the result of liability losses.

Average annual percentage payout of incurred losses by age, net of reinsurance (unaudited)					
Years	1	2	3	4	5
Average annual percentage payout	39.9%	18.6%	15.8%	11.5%	7.0%

Commercial Property

The following table shows the commercial property incurred and paid losses and ALAE development by accident year. The table also shows the IBNR reserves plus expected development on reported losses and claim frequency:

(Dollars in millions, reported claims in thousands)									As of December 31, 2020				
Incurred losses and ALAE, net of reinsurance for the years ended December 31,									Total of incurred but not reported liabilities plus expected development on reported losses	Cumulative number of reported claims			
Accident	Unaudited												
Year	2016		2017		2018		2019				2020		
2016	\$	590	\$	551	\$	541	\$	545	\$	542	\$	2	17
2017				587		560		556		565		3	18
2018						630		603		590		7	18
2019								621		606		6	17
2020										855		141	22
Total									\$	3,158			
Cumulative paid losses and ALAE, net of reinsurance													
2016	\$	358	\$	504	\$	528	\$	539	\$	539			
2017				395		522		547		560			
2018						386		559		576			
2019								413		561			
2020										489			
Total										2,725			
All outstanding liabilities before 2016, net of reinsurance										15			
Liabilities for loss and ALAE, net of reinsurance									\$	448			

The following table shows the average annual percentage payout of incurred losses for the commercial property line of business:

Average annual percentage payout of incurred losses by age, net of reinsurance (unaudited)					
Years	1	2	3	4	5
Average annual percentage payout	65.3%	25.8%	3.9%	2.1%	0.1%

Personal Auto

The following table shows the personal auto incurred and paid losses and ALAE development by accident year. The table also shows the IBNR reserves plus expected development on reported losses and claim frequency:

(Dollars in millions, reported claims in thousands)						As of December 31, 2020	
Incurred losses and ALAE, net of reinsurance for the years ended December 31,						Total of incurred but not reported liabilities plus expected development on reported losses	Cumulative number of reported claims
Accident Year	Unaudited						
	2016	2017	2018	2019	2020		
2016	\$ 383	\$ 384	\$ 386	\$ 384	\$ 384	\$ 1	110
2017		412	394	391	393	1	109
2018			424	398	395	1	111
2019				399	383	14	102
2020					305	62	67
Total					\$ 1,860		
Cumulative paid losses and ALAE, net of reinsurance							
2016	\$ 243	\$ 316	\$ 351	\$ 370	\$ 378		
2017		256	324	358	374		
2018			262	327	358		
2019				250	314		
2020					186		
Total					1,610		
All outstanding liabilities before 2016, net of reinsurance					10		
Liabilities for loss and ALAE, net of reinsurance					\$ 260		

The following table shows the average annual percentage payout of incurred losses for the personal auto line of business. Personal auto includes both physical damage and liability losses. A majority of the incurred losses paid after year 2 are the result of liability losses.

Average annual percentage payout of incurred losses by age, net of reinsurance (unaudited)					
Years	1	2	3	4	5
Average annual percentage payout	64.2%	17.3%	8.6%	4.6%	2.0%

Homeowner

The following table shows the homeowner incurred and paid losses and ALAE development by accident year. The table also shows the IBNR reserves plus expected development on reported losses and claim frequency:

(Dollars in millions, reported claims in thousands)										As of December 31, 2020			
Incurred losses and ALAE, net of reinsurance for the years ended December 31,										Total of incurred but not reported liabilities plus expected development on reported losses	Cumulative number of reported claims		
Accident	Unaudited												
Year	2016		2017		2018		2019		2020				
2016	\$	315	\$	304	\$	303	\$	302	\$	304	\$	—	23
2017				356		383		385		387		—	26
2018						370		386		387		5	24
2019								432		421		10	22
2020										497		54	21
Total									\$	1,996			
Cumulative paid losses and ALAE, net of reinsurance													
2016	\$	208	\$	283	\$	295	\$	299	\$	302			
2017				277		356		378		384			
2018						268		368		378			
2019								303		391			
2020										326			
Total										1,781			
All outstanding liabilities before 2016, net of reinsurance										4			
Liabilities for loss and ALAE, net of reinsurance										\$	219		

The following table shows the average annual percentage payout of incurred losses for the homeowner line of business:

Average annual percentage payout of incurred losses by age, net of reinsurance (unaudited)					
Years	1	2	3	4	5
Average annual percentage payout	69.3%	23.0%	4.1%	1.4%	0.8%

Excess and Surplus Lines

The following table shows the excess and surplus lines incurred and paid losses and ALAE development by accident year. The table also shows the IBNR reserves plus expected development on reported losses and claim frequency:

(Dollars in millions, reported claims in thousands)												As of December 31, 2020	
Incurred losses and ALAE, net of reinsurance for the years ended December 31,												Total of incurred but not reported liabilities plus expected development on reported losses	Cumulative number of reported claims
Accident Year	Unaudited										2020		
	2011	2012	2013	2014	2015	2016	2017	2018	2019				
2011	\$ 48	\$ 47	\$ 44	\$ 38	\$ 36	\$ 35	\$ 35	\$ 34	\$ 34	\$ 34	\$ 34	\$ —	1
2012		67	56	49	40	37	36	35	36		35	—	1
2013			74	64	54	45	42	41	41		41	2	2
2014				95	82	75	64	60	59		59	5	2
2015					96	81	73	67	65		66	6	2
2016						93	87	84	82		90	13	3
2017							104	95	95		94	15	3
2018								116	109		110	29	3
2019									137		135	50	3
2020											172	105	2
Total											\$ 836		
Cumulative paid losses and ALAE, net of reinsurance													
2011	\$ 8	\$ 14	\$ 23	\$ 27	\$ 30	\$ 32	\$ 34	\$ 33	\$ 33	\$ 33	\$ 33		
2012		9	15	19	25	29	31	32	33		34		
2013			7	12	20	27	32	34	37		39		
2014				9	17	27	37	43	48		51		
2015					8	19	29	41	51		54		
2016						10	21	39	51		62		
2017							11	23	41		57		
2018								11	26		50		
2019									13		34		
2020											16		
Total											430		
All outstanding liabilities before 2011, net of reinsurance											1		
Liabilities for loss and ALAE, net of reinsurance											\$ 407		

The following table shows the average annual percentage payout of incurred losses for the excess and surplus lines insurance segment. Excess and surplus lines consist mostly of commercial casualty and commercial property coverages. A majority of the incurred losses paid after year 2 are the result of commercial casualty losses.

Average annual percentage payout of incurred losses by age, net of reinsurance (unaudited)											
Years	1	2	3	4	5	6	7	8	9	10	
Average annual percentage payout	14.6%	14.4%	19.2%	15.4%	11.7%	6.9%	3.9%	2.2%	1.0%	0.2%	

NOTE 5 – Life Policy and Investment Contract Reserves

We establish the reserves for traditional life insurance policies based on expected expenses, mortality, morbidity, withdrawal rates, timing of claim presentation and investment yields, including a provision for uncertainty. Once these assumptions are established, they generally are maintained throughout the lives of the contracts. We use both our own experience and industry experience, adjusted for historical trends, in arriving at our assumptions for expected mortality, morbidity and withdrawal rates as well as for expected expenses. We base our assumptions for expected investment income on our own experience adjusted for current and future economic conditions.

We establish reserves for the company's universal life, deferred annuity and structured settlement policies equal to the cumulative account balances, which include premium deposits plus credited interest less charges and withdrawals. Some of our universal life policies contain no-lapse guarantee provisions. For these policies, we establish a reserve in addition to the account balance, based on expected no-lapse guarantee benefits and expected policy assessments.

This table summarizes our life policy and investment contract reserves:

(Dollars in millions)	At December 31,	
	2020	2019
Life policy reserves:		
Ordinary/traditional life	\$ 1,301	\$ 1,226
Other	52	50
Subtotal	1,353	1,276
Investment contract reserves:		
Deferred annuities	761	760
Universal life	647	640
Structured settlements	145	151
Other	9	8
Subtotal	1,562	1,559
Total life policy and investment contract reserves	\$ 2,915	\$ 2,835

NOTE 6 – Deferred Policy Acquisition Costs

Expenses directly related to successfully acquired insurance policies – primarily commissions, premium taxes and underwriting costs – are deferred and amortized over the terms of the policies. We update our acquisition cost assumptions periodically to reflect actual experience, and we evaluate the costs for recoverability. The table below shows the deferred policy acquisition costs and asset reconciliation:

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Property casualty:			
Deferred policy acquisition costs asset, January 1	\$ 512	\$ 464	\$ 438
Capitalized deferred policy acquisition costs	1,087	1,034	933
Amortized deferred policy acquisition costs	(1,057)	(986)	(907)
Deferred policy acquisition costs asset, December 31	<u>\$ 542</u>	<u>\$ 512</u>	<u>\$ 464</u>
Life:			
Deferred policy acquisition costs asset, January 1	\$ 262	\$ 274	\$ 232
Capitalized deferred policy acquisition costs	58	61	60
Amortized deferred policy acquisition costs	(49)	(48)	(39)
Shadow deferred policy acquisition costs	(8)	(25)	21
Deferred policy acquisition costs asset, December 31	<u>\$ 263</u>	<u>\$ 262</u>	<u>\$ 274</u>
Consolidated:			
Deferred policy acquisition costs asset, January 1	\$ 774	\$ 738	\$ 670
Capitalized deferred policy acquisition costs	1,145	1,095	993
Amortized deferred policy acquisition costs	(1,106)	(1,034)	(946)
Shadow deferred policy acquisition costs	(8)	(25)	21
Deferred policy acquisition costs asset, December 31	<u>\$ 805</u>	<u>\$ 774</u>	<u>\$ 738</u>

No premium deficiencies were recorded in the consolidated statements of income in 2020, 2019 and 2018, as the sum of the anticipated loss and loss expenses, policyholder dividends and unamortized deferred acquisition expenses did not exceed the related unearned premiums and anticipated investment income.

NOTE 7 – Note Payable

We have one unsecured revolving credit facility through multiple commercial banks which was due to expire on February 4, 2025, with the option of a one-year extension remaining from the 2019 amendment. The borrowing capacity is \$300 million with an additional \$300 million accordion feature. Terms and conditions of the agreement include a debt-to-total capital maximum of 35%. On December 11, 2020, we exercised our option to extend the term of the line of credit one year to February 4, 2026. We had no compensating balance requirements on short-term debt for either 2020 or 2019. At December 31, 2020 and 2019, \$54 million and \$39 million was drawn on the line of credit, respectively. The interest rate charged on our borrowings on this credit agreement ranged from 1.03% to 4.25% during 2020 and ranged from 2.59% to 3.41% during 2019. In addition, we have letters of credit related to our Cincinnati Re and Cincinnati Global operations with no amounts drawn at December 31, 2020 and 2019.

NOTE 8 – Long-Term Debt and Lease Obligations

This table summarizes the principal amounts of our long-term debt excluding unamortized discounts, none of which are encumbered by rating triggers:

(Dollars in millions)			Book value		Principal amount	
Interest rate	Year of issue		At December 31,		At December 31,	
			2020	2019	2020	2019
6.900%	1998	Senior debentures, due 2028	\$ 27	\$ 27	\$ 28	\$ 28
6.920%	2005	Senior debentures, due 2028	391	391	391	391
6.125%	2004	Senior notes, due 2034	370	370	374	374
		Total	<u>\$ 788</u>	<u>\$ 788</u>	<u>\$ 793</u>	<u>\$ 793</u>

The finance lease term for equipment and autos is three to six years while the operating lease term for real estate properties is typically five years. Lease obligations totaled \$57 million in both 2020 and 2019, respectively. Below are the lease obligations we expect to pay through years 2026 and thereafter including \$3 million of interest for finance and operating leases:

(Dollars in millions)		Years ended December 31,					
		2021	2022	2023	2024	2025	2026 and thereafter
Finance lease obligations	\$	15	\$ 12	\$ 10	\$ 6	\$ 4	\$ 2
Operating lease obligations		2	2	2	2	1	2
Total lease obligations	<u>\$</u>	<u>17</u>	<u>\$ 14</u>	<u>\$ 12</u>	<u>\$ 8</u>	<u>\$ 5</u>	<u>\$ 4</u>

The following table provides lease cost and other information for the year ended December 31, 2020 and 2019:

(Dollars in millions)		2020	2019
Lease cost:			
Finance lease cost	\$	15	\$ 9
Operating lease cost		4	4
Total lease cost	<u>\$</u>	<u>19</u>	<u>\$ 13</u>
Other information finance leases:			
Finance cash outflows	\$	15	\$ 15
Weighted average discount rate		2.62 %	2.96 %
Weighted average remaining lease term in years		3.67	3.65
Other information operating leases:			
Operating cash outflows	\$	8	\$ 8
Weighted average discount rate		3.65 %	3.69 %
Weighted average remaining lease term in years		4.84	4.71

NOTE 9 – Shareholders’ Equity and Dividend Restrictions

Declared cash dividends per share were \$2.40, \$2.24 and \$2.12 for the years ended December 31, 2020, 2019 and 2018, respectively.

Our lead insurance subsidiary, The Cincinnati Insurance Company, paid dividends to the parent company of \$550 million in 2020, \$625 million in 2019 and \$500 million in 2018. State regulatory requirements restrict the dividends insurance subsidiaries can pay. Generally, the most our lead insurance subsidiary can pay without prior regulatory approval is the greater of 10% of statutory capital and surplus or 100% of statutory net income for the prior calendar year. Dividends exceeding these limitations may be paid only with approval of the insurance department of the domiciliary state. During 2021, the total that our lead insurance subsidiary may pay in dividends is approximately \$583 million.

Dividend payments from Cincinnati Global to the parent company are subject to regulation by U.K. law. Cincinnati Global paid no dividends to the parent company in either 2020 or 2019.

Accumulated Other Comprehensive Income

The table below shows beginning and end of year accumulated other comprehensive income (AOCI) for investments, pension obligations, life deferred acquisition costs, life policy reserves and other. The changes from the beginning of year to the end of year are the result of changes to other comprehensive income or loss (OCI).

(Dollars in millions)									
	2020			2019			2018		
	Before tax	Income tax	Net	Before tax	Income tax	Net	Before tax	Income tax	Net
Investments:									
AOCI, January 1	\$ 590	\$ 123	\$ 467	\$ 46	\$ 9	\$ 37	\$ 3,540	\$ 733	\$ 2,807
Cumulative effect of change in accounting for equity securities as of January 1, 2018	—	—	—	—	—	—	(3,155)	(652)	(2,503)
Adjusted AOCI, beginning of period	590	123	467	46	9	37	385	81	304
OCI before investment gains and losses, net, recognized in net income	371	78	293	545	115	430	(334)	(71)	(263)
Investment gains and losses, net, recognized in net income	65	14	51	(1)	(1)	—	(5)	(1)	(4)
OCI	436	92	344	544	114	430	(339)	(72)	(267)
AOCI, December 31	\$ 1,026	\$ 215	\$ 811	\$ 590	\$ 123	\$ 467	\$ 46	\$ 9	\$ 37
Pension obligations:									
AOCI, January 1	\$ (9)	\$ —	\$ (9)	\$ (16)	\$ (2)	\$ (14)	\$ (12)	\$ (1)	\$ (11)
OCI excluding amortization recognized in net income	(35)	(7)	(28)	6	2	4	(5)	(1)	(4)
Amortization recognized in net income	3	—	3	1	—	1	1	—	1
OCI	(32)	(7)	(25)	7	2	5	(4)	(1)	(3)
AOCI, December 31	\$ (41)	\$ (7)	\$ (34)	\$ (9)	\$ —	\$ (9)	\$ (16)	\$ (2)	\$ (14)
Life deferred acquisition costs, life policy reserves and other:									
AOCI, January 1	\$ (13)	\$ (3)	\$ (10)	\$ (1)	\$ —	\$ (1)	\$ (10)	\$ (2)	\$ (8)
OCI before investment gains and losses, net, recognized in net income	3	1	2	(15)	(3)	(12)	(3)	(1)	(2)
Investment gains and losses, net, recognized in net income	—	—	—	3	—	3	12	3	9
OCI	3	1	2	(12)	(3)	(9)	9	2	7
AOCI, December 31	\$ (10)	\$ (2)	\$ (8)	\$ (13)	\$ (3)	\$ (10)	\$ (1)	\$ —	\$ (1)
Summary of AOCI:									
AOCI, January 1	\$ 568	\$ 120	\$ 448	\$ 29	\$ 7	\$ 22	\$ 3,518	\$ 730	\$ 2,788
Cumulative effect of change in accounting for equity securities as of January 1, 2018	—	—	—	—	—	—	(3,155)	(652)	(2,503)
Adjusted AOCI, beginning of period	568	120	448	29	7	22	363	78	285
Investments OCI	436	92	344	544	114	430	(339)	(72)	(267)
Pension obligations OCI	(32)	(7)	(25)	7	2	5	(4)	(1)	(3)
Life deferred acquisition costs, life policy reserves and other OCI	3	1	2	(12)	(3)	(9)	9	2	7
Total OCI	407	86	321	539	113	426	(334)	(71)	(263)
AOCI, December 31	\$ 975	\$ 206	\$ 769	\$ 568	\$ 120	\$ 448	\$ 29	\$ 7	\$ 22

Investments gains and losses, net, and life deferred acquisition costs, life policy reserves and other investment gains and losses, net, are recorded in the investment gains and losses, net, line item in the consolidated statements of income. Amortization on pension obligations is recorded in the insurance losses and contract holders' benefits and underwriting, acquisition and insurance expenses line items in the consolidated statements of income.

NOTE 10 – Reinsurance

Primary components of our property casualty reinsurance assumed operations include involuntary and voluntary assumed as well as contracts from our reinsurance assumed operations, known as Cincinnati Re. Primary components of our ceded reinsurance include a property per risk treaty, property excess treaty, casualty per occurrence treaty, casualty excess treaty, property catastrophe treaty and catastrophe bonds and retrocessions on our reinsurance assumed operations. Management's decisions about the appropriate level of risk retention are affected by various factors, including changes in our underwriting practices, capacity to retain risks and reinsurance market conditions.

The table below summarizes our consolidated property casualty insurance net written premiums, earned premiums and incurred loss and loss expenses:

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Direct written premiums	\$ 5,756	\$ 5,477	\$ 5,018
Assumed written premiums	335	244	173
Ceded written premiums	(227)	(205)	(161)
Net written premiums	<u>\$ 5,864</u>	<u>\$ 5,516</u>	<u>\$ 5,030</u>
Direct earned premiums	\$ 5,623	\$ 5,340	\$ 4,931
Assumed earned premiums	285	199	149
Ceded earned premiums	(217)	(205)	(160)
Earned premiums	<u>\$ 5,691</u>	<u>\$ 5,334</u>	<u>\$ 4,920</u>
Direct incurred loss and loss expenses	\$ 3,699	\$ 3,402	\$ 3,188
Assumed incurred loss and loss expenses	184	117	125
Ceded incurred loss and loss expenses	(46)	(167)	(90)
Incurred loss and loss expenses	<u>\$ 3,837</u>	<u>\$ 3,352</u>	<u>\$ 3,223</u>

Our life insurance company purchases reinsurance for protection of a portion of risks that are written. Primary components of our life reinsurance program include individual mortality coverage, aggregate catastrophe and accidental death coverage in excess of certain deductibles.

The table below summarizes our consolidated life insurance earned premiums and contract holders' benefits incurred:

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Direct earned premiums	\$ 362	\$ 341	\$ 320
Ceded earned premiums	(73)	(71)	(70)
Earned premiums	<u>\$ 289</u>	<u>\$ 270</u>	<u>\$ 250</u>
Direct contract holders' benefits incurred	\$ 359	\$ 359	\$ 328
Ceded contract holders' benefits incurred	(62)	(73)	(61)
Contract holders' benefits incurred	<u>\$ 297</u>	<u>\$ 286</u>	<u>\$ 267</u>

The ceded benefits incurred can vary depending on the type of life insurance policy held and the year the policy was issued.

NOTE 11 – Income Taxes

The significant components of deferred tax assets and liabilities included in the consolidated balance sheets at December 31 were as follows:

(Dollars in millions)	At December 31,	
	2020	2019
Deferred tax assets:		
Unearned premiums	\$ 119	\$ 113
Loss and loss expense reserves	81	66
Deferred international earnings	45	51
Net operating loss on international earnings	26	4
Other	41	39
Deferred tax assets before valuation allowance	312	273
Valuation allowance for international operations	56	41
Deferred tax assets net of valuation allowance	256	232
Deferred tax liabilities:		
Investment gains and other, net	1,240	995
Deferred acquisition costs	143	139
Life policy reserves	121	120
Investments	13	23
Other	38	34
Total gross deferred tax liabilities	1,555	1,311
Net deferred income tax liability	\$ 1,299	\$ 1,079

Deferred tax assets and liabilities reflect temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amount recognized for tax purposes.

Deferred tax assets are reduced by a valuation allowance when management believes it is more likely than not that some, or all, of the deferred tax assets will not be realized. After considering all positive and negative evidence of taxable income in the carryback and carryforward periods as permitted by law, we believe it is more likely than not that all of the deferred tax assets on our U.S. domestic operations will be realized. As a result, we have no valuation allowance as of December 31, 2020 and 2019 for our U.S. domestic operations. As more fully discussed below, we do carry a valuation allowance on the deferred tax assets related to Cincinnati Global.

For financial reporting purposes, income (loss) before income taxes includes the following components:

(Dollars in millions)	For the years ended December 31,		
	2020	2019	2018
United States	\$ 1,521	\$ 2,440	\$ 251
International	(22)	32	—
Total income before income taxes	\$ 1,499	\$ 2,472	\$ 251

The provision (benefit) for income taxes consists of:

(Dollars in millions)	For the years ended December 31,		
	2020	2019	2018
Provision (benefit) for income taxes:			
Current – United States federal	\$ 147	\$ 137	\$ 11
International	—	(5)	—
Total current	147	132	11
Deferred – United States federal	136	338	(47)
International	—	5	—
Total deferred	136	343	(47)
Total provision (benefit) for income taxes	\$ 283	\$ 475	\$ (36)

The differences between the 21% statutory federal income tax rate and our effective income tax rate were as follows:

(Dollars in millions)	Years ended December 31,					
	2020		2019		2018	
Tax at statutory rate:	\$ 315	21.0 %	\$ 519	21.0 %	\$ 53	21.0 %
Increase (decrease) resulting from:						
Tax-exempt income from municipal bonds	(20)	(1.3)	(19)	(0.8)	(20)	(8.0)
Dividend received exclusion	(17)	(1.1)	(16)	(0.6)	(15)	(6.0)
Tax accounting method changes	—	—	—	—	(50)	(19.9)
Other	5	0.3	(9)	(0.4)	(4)	(1.4)
Provision (benefit) for income taxes	\$ 283	18.9 %	\$ 475	19.2 %	\$ (36)	(14.3)%

In 2018, we received approval from the IRS to change our method of tax accounting for certain items applicable for the 2017 tax year and tax return, primarily related to the valuation of our tax basis unpaid losses. Accounting guidance does not allow recognition of the impact of certain tax accounting method changes until approved by the IRS. As a result, we recognized a \$50 million income tax benefit in 2018 for the difference between the current 21% tax rate and the 2017 tax rate of 35% for the related items. This reduced our effective tax rate by 19.9% for the year ended December 31, 2018.

The provision for federal income taxes is based upon the filing of a consolidated income tax return for the company and its domestic subsidiaries within the United States. As of December 31, 2020, 2019 and 2018, we have no operating loss carryforwards in the United States. For the years ended December 31, 2020, 2019 and 2018, we have no capital loss carryforwards in the United States. As more fully discussed below, Cincinnati Global, has operating loss carryforwards in the United Kingdom.

As more fully discussed in Note 1, Summary of Significant Accounting Policies, COVID-19 was declared a pandemic on March 11, 2020. In response to the pandemic, various stimulus legislation was enacted in 2020 including the Coronavirus Aid, Relief and Economic Security Act (CARES Act), signed into law on March 27, 2020 and the Consolidated Appropriations Act, 2021 (CAA Act), signed into law on December 27, 2020. We have evaluated both Acts as well as other pandemic-related legislation enacted in 2020 and believe any impact to our financial statements, as a result of such legislation, will be immaterial.

Unrecognized Tax Benefits

As of December 31, 2020, 2019 and 2018, we had a gross unrecognized tax benefit of \$34 million. The following is a tabular reconciliation of the total amounts of unrecognized tax benefits.

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Gross unrecognized tax benefits, January 1	\$ 34	\$ 34	\$ —
Gross increase in prior year positions	—	—	—
Gross decrease in prior year positions	—	—	—
Gross increase in current year positions	—	—	34
Settlements with tax authorities	—	—	—
Lapse of statute of limitations	—	—	—
Gross unrecognized tax benefits, December 31	<u>\$ 34</u>	<u>\$ 34</u>	<u>\$ 34</u>

The unrecognized tax benefit liability is carried in other liabilities in the consolidated balance sheets. Included in the unrecognized tax benefit liability as of December 31, 2020 is \$34 million that, if recognized, would affect the effective tax rate in the period of the release. Although no interest and penalties currently are accrued, if incurred, they would be recognized as a component of income tax expense. We do not expect any changes to our unrecognized tax benefit liability in the next twelve months.

The statute of limitations for federal tax purposes has generally closed for tax years ended December 31, 2016 and earlier, however, as a result of certain net operating loss carryback claims we have filed, the IRS maintains a limited ability to assess tax for the 2015 tax year. In 2019, the IRS began its examination of the tax year ended December 31, 2017 and they have expanded their scope to include tax year ended December 31, 2018. At this time, no adjustments have been proposed. In addition to our IRS filings, we file income tax returns with immaterial amounts in various state jurisdictions and record these amounts in our provision for income taxes for both current and deferred taxes. The statute of limitations for state income tax purposes has closed for tax years ended December 31, 2016 and earlier.

Cincinnati Global operates in the United Kingdom and as such, is subject to tax in that jurisdiction. The statute of limitation for tax return review by Her Majesty's Revenue and Customs (HMRC) has closed for tax years ended December 31, 2018 and earlier. There are currently no tax returns under review by HMRC.

Income taxes paid in our consolidated statements of cash flows are shown net of refunds received. We received no refunds in 2020, \$94 million in 2019 and none in 2018.

Cincinnati Global

Cincinnati Global's operating results for the year ended December 31, 2020, increased their net deferred assets by \$15 million with an offsetting increase of \$15 million to their valuation allowance. As of December 31, 2020, Cincinnati Global had a net deferred tax asset of \$56 million and an offsetting valuation allowance of \$56 million.

Deferred tax assets are reduced by a valuation allowance when management believes it is more likely than not that some, or all, of the deferred tax assets will not be realized. After considering all positive and negative evidence, including cumulative losses related to the operations of Cincinnati Global, we believe it was appropriate to set up a valuation allowance for purposes of our opening Cincinnati Global balance sheet and is appropriate to carry a valuation allowance as of December 31, 2020 and 2019.

The following is a tabular reconciliation of the total amounts of our Cincinnati Global valuation allowance.

(Dollars in millions)	Years ended December 31,	
	2020	2019
Valuation allowance, January 1	\$ 41	\$ —
Acquisition accounting amount	—	55
Current year operations	15	(14)
Valuation allowance, December 31	<u>\$ 56</u>	<u>\$ 41</u>

As of December 31, 2020, and 2019, Cincinnati Global had operating loss carryforwards in the United States of \$26 million and \$20 million and in the United Kingdom of \$108 million and \$127 million, respectively. These Cincinnati Global losses can only be utilized within the Cincinnati Global group in both the United States and in the United Kingdom and cannot offset the income of our CFC group domestic operations in the United States.

NOTE 12 – Net Income Per Common Share

Basic earnings per share are computed based on the weighted average number of common shares outstanding. Diluted earnings per share are computed based on the weighted average number of common and dilutive potential common shares outstanding using the treasury stock method. The table shows calculations for basic and diluted earnings per share:

(In millions, except per share data)

	Years ended December 31,		
	2020	2019	2018
Numerator:			
Net income—basic and diluted	<u>\$ 1,216</u>	<u>\$ 1,997</u>	<u>\$ 287</u>
Denominator:			
Basic weighted-average common shares outstanding	161.2	163.2	163.2
Effect of share-based awards:			
Stock options	0.7	1.2	0.8
Nonvested shares	<u>0.5</u>	<u>0.7</u>	<u>0.5</u>
Diluted weighted-average shares	<u>162.4</u>	<u>165.1</u>	<u>164.5</u>
Earnings per share:			
Basic	\$ 7.55	\$ 12.24	\$ 1.76
Diluted	7.49	12.10	1.75
Number of anti-dilutive share-based awards	1.4	—	1.3

The sources of dilution of our common shares are certain equity-based awards as discussed in Note 17, Share-Based Associate Compensation Plans. The above table includes the number of anti-dilutive share-based awards at year-end 2020, 2019 and 2018. We did not include these share-based awards in the computation of net income per common share (diluted) because their exercise would have anti-dilutive effects.

NOTE 13 – Employee Retirement Benefits

We sponsor a qualified defined benefit pension plan that we closed entry into for new associates as of June 30, 2008, and only participants 40 years of age or older as of August 31, 2008, could elect to continue to participate. During 2008, we changed the form of retirement benefit we offer some associates to a company match on contributions to a 401(k) plan as further explained below. For participants remaining in the pension plan, we continue to fund future benefit obligations. Benefits for the defined benefit pension plan are based on years of credited service and compensation level. Contributions are based on the prescribed method defined in the Pension Protection Act. Our net periodic benefit cost is based on certain actuarial assumptions and also is composed of several components that are determined using the projected unit credit actuarial cost method. The qualified plan has been amended to allow for distribution of vested balances to terminated participants.

We sponsor a defined contribution plan (401(k) plan) for eligible associates with matching company contributions totaling \$22 million, \$19 million and \$18 million during the years 2020, 2019 and 2018, respectively. Associates who are not accruing benefits under the pension plan are eligible to receive the company match of up to 6% of cash compensation. Participants vest in the company match for the 401(k) plan after three years of eligible service.

We maintain a supplemental executive retirement plan (SERP) with a benefit obligation of \$10 million at year-end 2020 and \$11 million at year-end 2019, which is included in the projected benefit obligation. The company also makes available to a select group of associates the CFC Top Hat Savings Plan, a nonqualified deferred compensation plan, which had a fair value of \$51 million and \$45 million at December 31, 2020 and 2019, respectively. Company matching contributions to the CFC Top Hat Savings Plan totaled approximately \$1 million for the years 2020, 2019 and 2018, respectively.

Defined Benefit Pension Plan Assumptions

We evaluate our pension plan assumptions annually and update them as necessary. This is a summary of the weighted-average assumptions used to determine our benefit obligations at December 31 for the plans:

	Qualified Pension Plan		SERP	
	2020	2019	2020	2019
Discount rate	2.68 %	3.40 %	2.52 %	3.33 %
Rate of compensation increase	2.25-3.25	2.25-3.25	2.25-3.25	2.25-3.25

To determine the discount rate for each plan, a theoretical settlement portfolio of high-quality rated corporate bonds was chosen to provide payments approximately matching the plan's projected benefit payments. A single interest rate for each plan was determined resulting in a discounted value of the plan's benefit payments that equates to the market value of the selected bonds. The discount rate is reflective of current market interest rate conditions and our plan's liability characteristics. Based on this analysis, we decreased the rate from the prior year by 0.72 percentage points for the qualified pension plan and by 0.81 percentage points for the SERP. Compensation increase assumptions reflect anticipated rates of inflation, real return on wage growth and merit and promotional increases. The mortality assumption is updated annually to reflect the updated scale. The Pri-2012 tables with Scale MP-2020 and Scale MP-2019 were used for the years 2020 and 2019, respectively. The RP-2014 table projected generationally with Scale MP-2018 was used for the year 2018. The updated mortality table did not have a significant impact on our consolidated financial statements as our qualified plan assumes the majority of benefits will be paid in the form of lump sums.

This is a summary of the weighted-average assumptions used to determine our net periodic benefit cost for the plans:

	Qualified Pension Plan			SERP		
	2020	2019	2018	2020	2019	2018
Discount rate	3.40 %	4.34 %	3.73 %	3.33 %	4.25 %	3.61 %
Expected return on plan assets	7.00	7.00	7.25	n/a	n/a	n/a
Rate of compensation increase	2.25-3.25	2.25-3.25	2.75-3.25	2.25-3.25	2.25-3.25	2.75-3.25

The discount rate was decreased by 0.94 percentage points for the qualified pension plan and 0.92 percentage points for the SERP due to market interest rate conditions at the beginning of 2020. The discount rate assumptions

for our benefit obligation generally track with high-quality rated corporate bond yields chosen in our theoretical settlement portfolio, and yearly adjustments reflect any changes to those bond yields. We believe the expected return on plan assets is representative of the expected long-term rate of return on these assets, which is consistent with 2020 expectations of interest rates and based partially on the fact that the plan's common stock holdings pay dividends. We review historical actual return on plan assets when determining our expected long-term rate of return. Total portfolio return for 2020 was 11.4% and for 2019 was 24.5%. Our compensation increase assumptions in 2020 reflect anticipated rates of inflation, real return on wage growth and merit and promotional increases.

Benefit obligation activity using an actuarial measurement date for our qualified pension plan and SERP at December 31 follows:

(Dollars in millions)	At December 31,	
	2020	2019
Change in projected benefit obligation:		
Benefit obligation, January 1	\$ 350	\$ 318
Service cost	9	8
Interest cost	12	13
Actuarial loss	51	45
Benefits paid	(35)	(34)
Projected benefit obligation, December 31	<u>\$ 387</u>	<u>\$ 350</u>
Change in plan assets:		
Fair value of plan assets, January 1	\$ 354	\$ 318
Actual return on plan assets	34	70
Employer contribution	4	—
Benefits paid	(35)	(34)
Fair value of plan assets, December 31	<u>\$ 357</u>	<u>\$ 354</u>
Funded status, December 31	<u>\$ (30)</u>	<u>\$ 4</u>
Accumulated benefit obligation	<u>\$ 360</u>	<u>\$ 327</u>

Our plan was in an unfunded status for 2020 compared to 2019 primarily due to lower year over year return on plan assets, increases in actuarial losses from decreases in discount rates and changes to assumed lump sum basis. The lump sum basis was changed from a Pension Benefit Guaranty Corporation (PBGC) rate, which is no longer being published by the PBGC after December 31, 2020, and mortality rates based on GAM83 tables with minor adjustments, to Internal Revenue Code (IRC) Section 417(e) interest rates and IRC Section 417(e) mortality rates, updated annually and projected into the future. The lump sum basis change resulted in an increase to our actuarial loss at December 31, 2020.

A reconciliation follows of the funded status for our qualified plan and SERP at the end of the measurement period to the amounts recognized in the consolidated balance sheets at December 31:

(Dollars in millions)	At December 31,	
	2020	2019
Pension amounts recognized in the consolidated balance sheets:		
Other (liability) assets	\$ (30)	\$ 4
Total	\$ (30)	\$ 4
Pension amounts recognized in accumulated other comprehensive income:		
Net actuarial loss	\$ 41	\$ 9
Total	\$ 41	\$ 9

Below are the components of our net periodic benefit cost, as well as other changes in plan assets and benefit obligations recognized in other comprehensive income for our qualified plan and SERP at December 31:

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Net periodic benefit cost:			
Service cost	\$ 9	\$ 8	\$ 11
Non-service costs (benefit):			
Interest cost	12	13	13
Expected return on plan assets	(21)	(20)	(22)
Amortization of actuarial loss and prior service cost	3	1	1
Other	3	1	2
Net periodic benefit cost	\$ 6	\$ 3	\$ 5
Other changes in plan assets and benefit obligations recognized in other comprehensive income:			
Current year actuarial (gain) loss	\$ 38	\$ (5)	\$ 7
Amortization of actuarial loss	(6)	(2)	(3)
Total recognized in other comprehensive (income) loss	\$ 32	\$ (7)	\$ 4
Total recognized in net periodic benefit cost and other comprehensive (income) loss	\$ 38	\$ (4)	\$ 9

The 2020 change in the amount recognized in other comprehensive income from 2019 is largely due to changes in the actuarial loss resulting from decreases in discount rates and changes to assumed lump sum basis as discussed above.

Service costs and non-service costs (benefit) are allocated in the same proportion primarily to underwriting, acquisition and insurance expenses line item with the remainder allocated to the insurance losses and contract holders' benefits line item on the consolidated statements of income for 2020, 2019 and 2018.

Defined Benefit Pension Plan Assets

The pension plan assets are managed to maximize total return over the long term while providing sufficient liquidity and current return to satisfy the cash flow requirements of the plan. The plan's day-to-day investment decisions are managed by our internal investment department; however, overall investment strategies are discussed with our employee benefits committee. Our investment strategy is to weight our portfolio towards large-cap, high-quality, dividend-growing equities that we have historically favored. As our plan matures and interest rates normalize, we expect a greater allocation to fixed-income securities to better align asset and liability market risks. Our fixed-maturity bond portfolio is investment grade. The plan does not engage in derivative transactions.

Excluding cash, during 2020 we held approximately 82% of our pension portfolio in domestic common equity investments. The remainder of the portfolio consisted of 9% in United States government fixed-maturity

investments, 6% in domestic corporate fixed-maturity investments and 3% in states, municipalities and taxable political subdivisions fixed-maturity investments. Our common equity portfolio consisted of 26% in the information technology sector, 20% in the financial sector, 13% in the industrial sector, and 12% in the healthcare sector at year-end 2020. No additional sectors accounted for 10% or more of our common equity portfolio balance at year-end 2020.

Investments in securities are valued based on the fair value hierarchy outlined in Note 3, Fair Value Measurements. The pension plan did not have any liabilities carried at fair value during the years ended December 31, 2020 and 2019. There have been no transfers between Level 1 and Level 2 for the years ended December 31, 2020 and 2019. The following table shows the fair value hierarchy for those assets measured at fair value on a recurring basis at December 31, 2020 and 2019. Excluded from the table below is cash on hand of \$31 million and \$17 million at December 31, 2020 and 2019, respectively.

(Dollars in millions)

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
At December 31, 2020				
Fixed maturities, available for sale:				
United States Government	\$ 31	\$ —	\$ —	\$ 31
Corporate	—	20	—	20
States, municipalities and political subdivisions	—	9	—	9
Total fixed maturities, available for sale	31	29	—	60
Common equities	266	—	—	266
Total	\$ 297	\$ 29	\$ —	\$ 326
At December 31, 2019				
Fixed maturities, available for sale:				
United States Government	\$ 25	\$ —	\$ —	\$ 25
Corporate	—	27	—	27
States, municipalities and political subdivisions	—	25	—	25
Total fixed maturities, available for sale	25	52	—	77
Common equities	260	—	—	260
Total	\$ 285	\$ 52	\$ —	\$ 337

Our pension plan assets included 202,337 and 232,113 shares of the company's common stock at December 31, 2020 and 2019, which had a fair value of \$18 million and \$24 million at December 31, 2020 and 2019, respectively. The defined benefit pension plan did not purchase any of our common stock during 2020 or 2019. The defined benefit pension plan sold 29,776 shares of our common stock during 2020 and did not sell any shares during 2019. The company paid less than \$1 million in 2020 and 2019 in cash dividends on our common stock to the pension plan.

We estimate \$8 million of benefit payments from the SERP during 2021. We expect to make the following benefit payments for our qualified plan and SERP, reflecting expected future service:

(Dollars in millions)

	Years ended December 31,					
	2021	2022	2023	2024	2025	2026 - 2030
Expected future benefit payments	\$ 49	\$ 22	\$ 25	\$ 27	\$ 29	\$ 163

NOTE 14 – Statutory Accounting Information

Insurance companies' statutory financial statements are presented on the basis of accounting practices prescribed or permitted by applicable state insurance departments of domicile. Insurance companies use statutory accounting practices (SAP) as recognized by various states. We have adopted the National Association of Insurance Commissioners' (NAIC) *Accounting Practices and Procedures* manual, version effective January 1, 2001, and updates through the current year as a component of prescribed or permitted practices by laws of the state of domicile. The primary differences between SAP and GAAP include the valuation of investment gains and losses, expensing of policy acquisition costs, actuarial assumptions for life insurance reserves and deferred income taxes based on differences in statutory and taxable income.

Statutory net income and capital and surplus are determined in accordance with SAP prescribed or permitted by insurance regulatory authorities for five legal entities, our lead insurance subsidiary and its four insurance subsidiaries. Statutory capital and surplus for our insurance subsidiary, The Cincinnati Insurance Company, includes capital and surplus of its four insurance subsidiaries. All capital and surplus amounts exceed statutory risk-based capital requirements. The statutory net income and statutory capital and surplus are presented below:

(Dollars in millions)	Net income			Capital and surplus	
	Years ended December 31,			At December 31,	
	2020	2019	2018	2020	2019
The Cincinnati Insurance Company	\$ 466	\$ 558	\$ 626	\$ 5,838	\$ 5,620
The Cincinnati Casualty Company	14	13	16	456	437
The Cincinnati Indemnity Company	3	3	5	115	111
The Cincinnati Specialty Underwriters Insurance Company	42	62	69	528	526
The Cincinnati Life Insurance Company	27	19	—	241	204

NOTE 15 – Transactions With Affiliated Parties

We paid certain officers and directors, or insurance agencies of which they are shareholders, commissions of \$7 million in 2020, \$8 million in 2019 and \$7 million in 2018, on premium volume of \$45 million, \$48 million and \$45 million for 2020, 2019 and 2018, respectively.

NOTE 16 – Commitments and Contingent Liabilities

In the ordinary course of conducting business, the company and its subsidiaries are named as defendants in various legal proceedings. Most of these proceedings are claims litigation involving the company's insurance subsidiaries in which the company is either defending or providing indemnity for third-party claims brought against insureds or litigating first-party coverage claims. The company accounts for such activity through the establishment of unpaid loss and loss expense reserves. We believe that the ultimate liability, if any, with respect to such ordinary-course claims litigation, after consideration of provisions made for potential losses and costs of defense, is immaterial to our consolidated financial condition, results of operations and cash flows.

Beginning in April 2020, like many companies in the property casualty insurance industry, the company's property casualty subsidiaries, were named as defendants in lawsuits seeking insurance coverage under commercial property insurance policies issued by the company for alleged losses resulting from the shutdown or suspension of their businesses due to the COVID-19 pandemic. Although the allegations vary, the plaintiffs generally seek a declaration of insurance coverage, damages for breach of contract in unspecified amounts for claim denials, interest and attorney fees. Some of the lawsuits also allege that the insurance claims were denied in bad faith or otherwise in violation of state laws and seek extra-contractual or punitive damages.

The company denies the allegations in these lawsuits and intends to continue to vigorously defend the lawsuits. The company maintains that it has no coverage obligations with respect to these lawsuits for business income allegedly lost by the plaintiffs due to the COVID-19 pandemic based on the terms of the applicable insurance policies. Although the policy terms vary in general, the claims at issue in these lawsuits were denied because the policyholder identified no direct physical loss or damage to property at the insured premises, and the governmental orders that led to the complete or partial shutdown of the business were not due to the existence of any direct physical loss or damage to property in the immediate vicinity of the insured premises and did not prohibit access to the insured premises, as required by the terms of the insurance policies. Depending on the individual policy, additional policy terms and conditions may also prohibit coverage, such as exclusions for pollutants, ordinance or law, loss of use, and acts or decisions. The company's standard commercial property insurance policies generally did not contain a specific virus exclusion.

In addition to the inherent difficulty in predicting litigation outcomes, the COVID-19 pandemic business income coverage lawsuits present a number of uncertainties and contingencies that are not yet known, including how many policyholders will ultimately file claims, the number of lawsuits that will be filed, the extent to which any class may be certified, and the size and scope of any such classes. The legal theories advanced by plaintiffs vary by case as do the state laws that govern the policy interpretation. These lawsuits are in the early stages of litigation; many complaints continue to be amended; several have been dismissed voluntarily and may be refiled; and others have been dismissed by trial courts. Some early decisions on motion filings have been appealed. Accordingly, little discovery has occurred on pending cases and few substantive legal rulings have been made. In addition, business income calculations depend upon a wide range of factors that are particular to the circumstances of each individual policyholder and, here, virtually none of the plaintiffs have submitted proofs of loss or otherwise quantified or factually supported any allegedly covered loss. Moreover, the company's experience shows that demands for damages often bear little relation to a reasonable estimate of potential loss. Accordingly, management cannot now reasonably estimate the possible loss or range of loss, if any. Nonetheless, given the number of claims and potential claims, the indeterminate amounts sought, and the inherent unpredictability of litigation, it is possible that adverse outcomes, if any, in the aggregate could have a material adverse effect on the company's consolidated financial condition, results of operations and cash flows.

The company and its subsidiaries also are occasionally involved in other legal and regulatory proceedings, some of which assert claims for substantial amounts. These actions include, among others, putative class actions seeking certification of a national class. Such proceedings have alleged, for example, breach of an alleged duty to search national databases to ascertain unreported deaths of insureds under life insurance policies. The company's insurance subsidiaries also are occasionally parties to individual actions in which extra-contractual damages, punitive damages or penalties are sought, such as claims alleging bad faith handling of insurance claims or writing unauthorized coverage or claims alleging discrimination by former or current associates.

On a quarterly basis, we review these outstanding matters. Under current accounting guidance, we establish accruals when it is probable that a loss has been incurred and we can reasonably estimate its potential exposure. The company accounts for such probable and estimable losses, if any, through the establishment of legal expense reserves. Based on our quarterly review, we believe that our accruals for probable and estimable losses are reasonable and that the amounts accrued do not have a material effect on our consolidated financial condition, results of operations and cash flows. However, if any one or more of these matters results in a judgment against us or settlement for an amount that is significantly greater than the amount accrued, the resulting liability could have a material effect on the company's consolidated financial condition, results of operations and cash flows. Based on our most recent review, our estimate for any other matters for which the risk of loss is not probable, but more than remote, is immaterial.

NOTE 17 – Share-Based Associate Compensation Plans

Four equity compensation plans currently permit us to grant various types of equity awards. We currently grant incentive stock options, nonqualified stock options, service-based restricted stock units and performance-based restricted stock units to associates, including some with market-based performance objectives under our shareholder-approved plans. We also have a Holiday Stock Plan that permits annual awards of one share of common stock to each full-time associate for each full calendar year of service up to a maximum of 10 shares. One of our equity compensation plans permits us to grant stock to our outside directors as a component of their annual compensation. We used treasury shares for share-based compensation award issues or exercises during 2020 and 2019.

Share-based compensation cost after tax was \$25 million, \$24 million and \$23 million for the years ended December 31, 2020, 2019 and 2018, respectively. The related income tax benefit recognized was \$6 million, \$6 million, and \$5 million for the years ended December 31, 2020, 2019 and 2018, respectively. Options exercised during the years ended December 31, 2020, 2019 and 2018, had intrinsic value of \$15 million, \$26 million and \$15 million, respectively. Intrinsic value is the market price less the exercise price. Options vested during the years ended December 31, 2020, 2019 and 2018, had total intrinsic value of \$7 million, \$23 million and \$6 million, respectively.

As of December 31, 2020, we had \$34 million of unrecognized total compensation cost related to nonvested stock options and restricted stock unit awards. That cost will be recognized over a weighted-average period of 1.7 years.

Stock Options

Stock options are granted to associates at an exercise price equal to the fair value as determined by the average high and low sales price reported on the Nasdaq Global Select Market for the grant date and are exercisable over 10-year periods. The stock options generally vest ratably over a three-year period. In determining the share-based compensation amounts, we estimate the fair value of each option granted on the date of grant using the Black Scholes pricing model. We make the following assumptions to develop the Black Scholes pricing model as follows:

Weighted-average expected term is based on historical experience of similar awards with consideration for current exercise trends.

Expected volatility is based on our stock price over a historical period that approximates the expected term.

Dividend yield is determined by dividing the annualized per share dividend by the stock price on the date of grant.

Risk-free rates are the implied yield currently available on zero-coupon U.S. Treasury issues with a remaining term approximating the expected term.

The following weighted average assumptions were used in determining fair value for option grants issued:

	2020	2019	2018
Weighted-average expected term	7-8 years	7-8 years	7-8 years
Expected volatility	16.89-17.13%	14.49-15.39%	15.04-15.10%
Dividend yield	2.15%	2.61%	2.98%
Risk-free rates	1.40-1.41%	2.62-2.64%	2.77-2.83%
Weighted-average fair value of options granted during the period	\$15.45	\$11.73	\$9.87

Below is a summary of option information for the year 2020:

(Dollars in millions, except exercise price. Shares in thousands)

	Shares	Weighted-average exercise price	Aggregate intrinsic value	Weighted-average remaining contractual life
Outstanding option shares at January 1, 2020	3,437	\$ 63.99		
Granted	508	111.53		
Exercised	(274)	41.86		
Forfeited or expired	(70)	55.60		
Outstanding option shares at December 31, 2020	<u>3,601</u>	72.55	\$ 66	6.01 years
Options exercisable at end of period	2,509	\$ 63.11	\$ 61	4.97 years

Cash received from the exercise of options was \$7 million, \$11 million and \$9 million for the years ended December 31, 2020, 2019 and 2018, respectively. We acquired 50,751, 103,237 and 69,649 shares totaling \$5 million, \$9 million and \$5 million, respectively, from associates in consideration for option exercises during 2020, 2019 and 2018. The weighted-average remaining contractual life for options expected to vest as of December 31, 2020, was 8.38 years.

Under all active shareholder approved plans, a total of 17.3 million shares were authorized to be granted. At December 31, 2020, 7.1 million shares remained available for future issuance under the plans. During 2020, we granted 12,928 shares of common stock to our directors for 2019 board service fees.

Restricted Stock Units

Service-based restricted stock units granted to associates are valued at fair value of the shares on the date of grant less the present value of the dividends that holders of restricted stock units do not receive on the shares underlying the restricted stock units during the vesting period. Service-based restricted stock units generally cliff vest three years after the date of grant. We also grant restricted stock units which vest on a three year ratable vesting schedule. Service-based restricted stock units vested during the year had an intrinsic value of \$30 million, \$25 million and \$24 million for the years ended December 31, 2020, 2019 and 2018, respectively.

We have performance-based awards that vest on the first day of March after a three-calendar-year performance period. These awards vest according to the level of three-year total shareholder return achieved compared with a peer group over a three-year performance period with payouts ranging from 0% to 200% for awards granted in 2020, 2019 and 2018. Three-year total shareholder return is calculated by using annualized total return of a stock to an investor due to capital gain appreciation plus reinvestment of all dividends.

For the three-year performance period ended December 31, 2020, our total shareholder return exceeded eight of our nine peers. We expect payout of these shares at the maximum level to occur in March of 2021. During 2020, we issued 56,722 shares of performance-based restricted stock units at the target-level performance hurdle for the three-year performance period ended December 31, 2019, as our total shareholder return exceeded five of nine peers in our 2017 peer group. We issued 20,549 shares of performance-based restricted stock units during 2019 at the threshold-level performance hurdle for the three-year performance period ended December 31, 2018, as our total shareholder return exceeded four of nine peers in our 2016 peer group. Performance-based awards vested during the year had an intrinsic value of \$5 million, \$2 million and \$6 million for the years ended December 31, 2020, 2019 and 2018, respectively.

These performance-based awards are valued using a Monte-Carlo valuation on the date of grant, which uses a risk-neutral framework to model future stock price movements based upon the risk-free rate of return, the volatility of each peer and the pairwise correlations of each peer being modeled. Compensation cost is recognized regardless of whether the market-based performance objective has been satisfied. We make assumptions to develop the Monte-Carlo model as follows:

Correlation coefficients are based upon the stock price data used to calculate the historical volatilities. The correlation coefficients are used to model the way the price of each entity's stock tends to move in relation to each other.

Expected volatility is based on each company's historical volatility using daily stock price observations with the period commensurate with the performance measurement period.

Dividend yield has been modeled assuming dividends are reinvested in additional shares of the issuing entity on the ex-dividend date during the performance period.

Risk-free rates are equal to the yield, as of the measurement date, of the zero-coupon U.S. Treasury bill that is commensurate with the performance measurement period.

The following assumptions were used in determining fair value for performance-based grants issued:

	2020	2019	2018
Expected term	2.86 years	2.86 years	2.89 years
Expected volatility	15.88-25.13%	15.10-25.00%	16.01-26.32%
Dividend yield	2.15%	2.61%	2.81%
Risk-free rates	1.30%	2.48%	2.22%

Below is a summary of service-based and performance-based share information, assuming a target payout for performance-based shares, for the year 2020:

(Shares in thousands)	Service-based shares	Weighted- average grant date fair value	Performance-based shares	Weighted- average grant date fair value
Nonvested at January 1, 2020	783	\$ 70.27	165	\$ 64.23
Granted	204	104.81	38	111.77
Vested	(269)	66.53	(56)	43.26
Forfeited or canceled	(22)	78.96	—	—
Nonvested at December 31, 2020	<u>696</u>	<u>81.56</u>	<u>147</u>	<u>84.64</u>

NOTE 18 – Segment Information

We operate primarily in two industries, property casualty insurance and life insurance. Our chief operating decision maker regularly reviews our reporting segments to make decisions about allocating resources and assessing performance. Our reporting segments are:

- Commercial lines insurance
- Personal lines insurance
- Excess and surplus lines insurance
- Life insurance
- Investments

We report as Other the noninvestment operations of the parent company and its noninsurer subsidiary, CFC Investment Company. We also report as Other the underwriting results of Cincinnati Re and Cincinnati Global.

Revenues come primarily from unaffiliated customers:

- All four insurance segments record revenues from insurance premiums earned.
- Fee revenues for the commercial, personal and excess and surplus insurance segments primarily represent installment fees. Fee revenues for the life insurance segment represent separate account investment management fees.
- Our investments' revenues consist of pretax net investment income and investment gains and losses.
- Other revenues are primarily finance income and earned premiums of Cincinnati Re and Cincinnati Global.

Income or loss before income taxes for each segment is reported based on the nature of that business area's operations:

- Income before income taxes for the insurance segments is defined as underwriting profit or loss.
 - For commercial lines, personal lines and excess and surplus lines insurance segments, we calculate underwriting profit or loss as premiums earned and fee revenue minus loss and loss expenses and underwriting expenses incurred.
 - For the life insurance segment, we calculate underwriting profit or loss as premiums earned and fee revenue, minus contract holders' benefits and expenses incurred, plus investment interest credited to contract holders.
- Income before income taxes for the investments segment is net investment income plus investment gains and losses for investments of the entire company, minus investment interest credited to contract holders of the life insurance segment.
- Loss before income taxes for the Other category is primarily due to interest expense from debt of the parent company, operating expenses of our headquarters and premiums earned minus loss and loss expenses and underwriting expenses of Cincinnati Re and Cincinnati Global.

We do not separately report the identifiable assets of property casualty insurance for the commercial, personal and excess and surplus lines segments or for Cincinnati Re because we do not use that measure to analyze performance. We include all investment assets, regardless of ownership, in the investments segment.

Segment information is summarized in the following table:

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Revenues:			
Commercial lines insurance			
Commercial casualty	\$ 1,165	\$ 1,102	\$ 1,075
Commercial property	1,010	958	920
Commercial auto	755	707	664
Workers' compensation	271	300	324
Other commercial	275	252	235
Commercial lines insurance premiums	3,476	3,319	3,218
Fee revenues	3	5	5
Total commercial lines insurance	3,479	3,324	3,223
Personal lines insurance			
Personal auto	615	621	614
Homeowner	658	607	563
Other personal	190	176	159
Personal lines insurance premiums	1,463	1,404	1,336
Fee revenues	4	4	5
Total personal lines insurance	1,467	1,408	1,341
Excess and surplus lines insurance			
Fee revenues	2	2	1
Total excess and surplus lines insurance	327	280	235
Life insurance premiums			
Fee revenues	289	270	250
Fee revenues	2	4	4
Total life insurance	291	274	254
Investments			
Investment income, net of expenses	670	646	619
Investment gains and losses, net	865	1,650	(402)
Total investment revenue	1,535	2,296	217
Other			
Premiums	427	333	132
Other	10	9	5
Total other revenue	437	342	137
Total revenues	\$ 7,536	\$ 7,924	\$ 5,407
Income (loss) before income taxes:			
Insurance underwriting results			
Commercial lines insurance	\$ 64	\$ 241	\$ 151
Personal lines insurance	47	8	(20)
Excess and surplus lines insurance	34	53	63
Life insurance	11	1	8
Investments	1,433	2,197	121
Other	(90)	(28)	(72)
Total income before income taxes	\$ 1,499	\$ 2,472	\$ 251
Identifiable assets:			
December 31,			
	2020	2019	
Property casualty insurance	\$ 3,838	\$ 3,437	
Life insurance	1,661	1,516	
Investments	21,332	19,583	
Other	711	872	
Total	\$ 27,542	\$ 25,408	

NOTE 19 – Quarterly Supplementary Data

This table includes unaudited quarterly financial information for the years ended December 31, 2020 and 2019:

(Dollars in millions, except per share data)

	Quarter				
	1st	2nd	3rd	4th	Full year
2020					
Revenues	\$ (99)	\$ 2,714	\$ 2,227	\$ 2,694	\$ 7,536
Income (loss) before income taxes	(1,576)	1,145	614	1,316	1,499
Net income (loss)	(1,226)	909	484	1,049	1,216
Net income (loss) per common share—basic	(7.56)	5.65	3.01	6.52	7.55
Net income (loss) per common share—diluted	(7.56)	5.63	2.99	6.47	7.49
2019					
Revenues	\$ 2,159	\$ 1,913	\$ 1,700	\$ 2,152	\$ 7,924
Income before income taxes	867	530	294	781	2,472
Net income	695	428	248	626	1,997
Net income per common share—basic	4.27	2.62	1.51	3.84	12.24
Net income per common share—diluted	4.22	2.59	1.49	3.79	12.10

The sum of the quarterly reported per share amounts may not equal the full year as each is computed independently. Revenues including investment gains and losses, which are integral to our financial results over the long term, may cause this value to fluctuate substantially because we have substantial discretion in the timing of investment sales. Also, applicable accounting standards require us to recognize gains and losses from certain changes in fair values of securities without actual realization of those gains and losses.

ITEM 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

We had no disagreements with the independent registered public accounting firm on accounting and financial disclosure during the last two fiscal years.

ITEM 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures – The company maintains disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act)).

Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. The company's management, with the participation of the company's chief executive officer and chief financial officer, has evaluated the effectiveness of the design and operation of the company's disclosure controls and procedures as of December 31, 2020.

Based upon that evaluation, the company's chief executive officer and chief financial officer concluded that the design and operation of the company's disclosure controls and procedures provided reasonable assurance that the disclosure controls and procedures are effective to ensure that:

- information required to be disclosed in the company's reports under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and

- such information is accumulated and communicated to the company's management, including its chief executive officer and chief financial officer, as appropriate, to allow for timely decisions regarding required disclosures.

Changes in Internal Control over Financial Reporting – During the three months ended December 31, 2020, there were no changes in our internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. There was no significant impact to our internal controls over financial reporting while the majority of our associates are working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing any potential impact on the design and operating effectiveness of our internal controls over financial reporting, caused by or related to the pandemic. Management's Annual Report on Internal Control Over Financial Reporting and the Report of the Independent Registered Public Accounting Firm are set forth in Item 8.

ITEM 9B. Other Information

None

Part III

Our Proxy Statement will be filed with the SEC no later than April 30, 2021, in preparation for the 2021 Annual Meeting of Shareholders scheduled for May 8, 2021. As permitted in Paragraph G(3) of the General Instructions for Form 10-K, we are incorporating by reference, to that statement, portions of the information required by Part III as noted in Item 10 through Item 14 below.

ITEM 10. Directors, Executive Officers and Corporate Governance

- a) The following sections of our Proxy Statement for our 2021 Annual Meeting of Shareholders to be held May 8, 2021, are incorporated herein by reference: "Delinquent Section 16(a) Reports," "Information about the Board of Directors," and "Governance of Your Company."
- b) Information about the "Code of Ethics for Senior Financial Officers" appeared in the 2004 Proxy Statement as an appendix and is available at cinfm.com/investors. Our Code of Ethics applies to those who are responsible for preparing and disclosing our financial information. This includes our chief executive officer, chief financial officer and others performing similar functions.
- c) Set forth below is information concerning the company's executive officers who are not also directors of the company, as of February 25, 2021.

Name and Age as of February 25, 2021	Primary Title(s) and Business Responsibilities Since February 2016	Executive Officer Since
Roger A. Brown, FSA, MAAA, CLU (49)	Senior vice president and chief operating officer of The Cincinnati Life Insurance Company. Responsible for life insurance underwriting and operations. Vice president of Cincinnati Life actuarial department until 2016.	2016
Teresa C. Cracas, Esq. (55)	Chief risk officer and senior vice president of The Cincinnati Insurance Company. Responsible for strategic planning and risk management, including oversight of modeling for financial analysis, property casualty reserving and pricing, as well as reinsurance assumed operations and the activities of Cincinnati Global Underwriting Ltd., a London-based, global specialty underwriter for Lloyd's Syndicate 318.	2011
Angela O. Delaney (52)	Senior vice president of The Cincinnati Insurance Company. Responsible for property casualty insurance sales and marketing operations since 2019, including management of field underwriters and independent agency relationships. Field sales supervisor for Idaho, Iowa, Montana, Oregon, South Dakota and Washington from 2017 to 2019. Senior field director for Western Montana until 2017.	2020
Donald J. Doyle, Jr., CPCU, AIM (54)	Senior vice president of The Cincinnati Insurance Company. Responsible for excess and surplus lines underwriting and operations of Cincinnati Specialty Underwriters Insurance and CSU Producer Resources Inc.	2008
Sean M. Givler, CIC, CRM (45)	Senior vice president of The Cincinnati Insurance Company. Responsible for standard market commercial lines underwriting and operations, including management liability and surety insurance, machinery and equipment insurance, loss control and premium audit. Until 2019, responsible for sales and marketing, including management of field underwriters and independent agency relationships. Sales manager for Alabama, Montana, Pennsylvania, Tennessee and Texas from 2011 to 2016.	2017
Theresa A. Hoffer (59)	Senior vice president and treasurer of The Cincinnati Insurance Company since 2016. Responsible for corporate accounting and SEC reporting operations. Vice president and treasurer in corporate accounting until 2016.	2017
Martin F. Hollenbeck, CFA, CPCU (61)	Chief investment officer and senior vice president, assistant secretary and assistant treasurer of Cincinnati Financial Corporation. Chief investment officer and senior vice president of The Cincinnati Insurance Company. Responsible for all investment operations.	2008

Name and Age as of February 25, 2021	Primary Title(s) and Business Responsibilities Since February 2016	Executive Officer Since
John S. Kellington (59)	Chief information officer and senior vice president of The Cincinnati Insurance Company. Responsible for enterprise strategic technology and oversight of all technology activities.	2010
Lisa A. Love, Esq. (61)	Senior vice president, general counsel and corporate secretary of Cincinnati Financial Corporation and The Cincinnati Insurance Company. Responsible for corporate legal, governance and compliance activities, including oversight of regulatory and compliance, shareholder services, corporate communications, government relations, litigation and contract administration.	2011
Michael J. Sewell, CPA (57)	Chief financial officer, principal accounting officer and senior vice president of Cincinnati Financial Corporation and The Cincinnati Insurance Company, and treasurer of Cincinnati Financial Corporation. Chief operating officer of CFC Investment Company, a commercial lease and finance subsidiary. Responsible for oversight of all accounting, finance, financial reporting, purchasing, investor relations, administrative services and facilities maintenance and security.	2011
Stephen M. Spray (54)	Chief insurance officer and senior vice president of The Cincinnati Insurance Company. Responsible for executive oversight of commercial and personal standard market and excess and surplus lines property and casualty insurance sales, marketing, underwriting, related field services, relationships with independent agents and ceded reinsurance programs. Until 2019, responsible for commercial lines underwriting and operations. Responsible for sales and marketing, including management of field underwriters and independent agency relationships until 2016.	2012
William H. Van Den Heuvel (54)	Senior vice president of The Cincinnati Insurance Company. Responsible for all aspects of personal lines operations, including underwriting, insurance regulatory filings, product management and risk management.	2014

ITEM 11. Executive Compensation

The “Compensation of Named Executive Officers and Directors,” section of our Proxy Statement for our Annual Meeting of Shareholders to be held May 8, 2021, is incorporated herein by reference. It includes the “Report of the Compensation Committee,” “Compensation Committee Interlocks and Insider Participation” and the “Compensation Discussion and Analysis.”

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

- a) The “Security Ownership of Principal Shareholders and Management” section of our Proxy Statement for our Annual Meeting of Shareholders to be held May 8, 2021, is incorporated herein by reference.
- b) Information on securities authorized for issuance under equity compensation plans appears in Part II, Item 5, Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities. Additional information on share-based compensation under our equity compensation plans is available in Item 8, Note 17 of the Consolidated Financial Statements.

ITEM 13. Certain Relationships and Related Transactions, and Director Independence

The following sections of our Proxy Statement for our Annual Meeting of Shareholders to be held May 8, 2021, are incorporated herein by reference: “Governance of Your Company – Director Independence” and “Governance of Your Company – Certain Relationships and Transactions.”

ITEM 14. Principal Accounting Fees and Services

The “Audit-Related Matters,” section of our Proxy Statement for our Annual Meeting of Shareholders to be held May 8, 2021, is incorporated herein by reference. It includes the “Proposal 3 – Ratification of Selection of Independent Registered Public Accounting Firm,” “Report of the Audit Committee,” “Fees Billed by the Independent Registered Public Accounting Firm” and “Services Provided by the Independent Registered Public Accounting Firm.”

Part IV

ITEM 15. Exhibit and Financial Statement Schedules

a) Financial Statements – information contained in Part II, Item 8, of this report, Page 124 to Page 181

b) Exhibits – see Index of Exhibits, Page 199

c) Financial Statement Schedules

Schedule I – Summary of Investments – Other Than Investments in Related Parties, Page 188

Schedule II – Condensed Financial Statements of Parent Company, Page 190

Schedule III – Supplementary Insurance Information, Page 193

Schedule IV – Reinsurance, Page 195

Schedule V – Valuation and Qualifying Accounts, Page 196

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Schedule I

Cincinnati Financial Corporation and Subsidiaries Summary of Investments - Other Than Investments in Related Parties

(Dollars in millions)	At December 31, 2020		
Type of investment	Cost or amortized cost	Fair value	Balance sheet
Fixed maturities:			
States, municipalities and political subdivisions:			
The Cincinnati Insurance Company	\$ 3,346	\$ 3,638	\$ 3,638
The Cincinnati Casualty Company	219	238	238
The Cincinnati Indemnity Company	48	52	52
The Cincinnati Life Insurance Company	357	387	387
The Cincinnati Specialty Underwriters Insurance Company	580	629	629
CSU Producer Resources Inc.	1	1	1
Cincinnati Financial Corporation	53	52	52
Total	4,604	4,997	4,997
United States government:			
The Cincinnati Insurance Company	65	70	70
The Cincinnati Casualty Company	1	1	1
The Cincinnati Indemnity Company	1	1	1
Cincinnati Global Underwriting Ltd.	48	48	48
Total	115	120	120
Foreign government:			
The Cincinnati Insurance Company	10	10	10
Cincinnati Global Underwriting Ltd.	19	19	19
Total	29	29	29
Government-sponsored enterprises:			
Cincinnati Global Underwriting Ltd.	1	1	1
Cincinnati Financial Corporation	11	11	11
Total	12	12	12
All other corporate bonds:			
The Cincinnati Insurance Company	2,964	3,211	3,211
The Cincinnati Casualty Company	103	110	110
The Cincinnati Indemnity Company	30	33	33
The Cincinnati Life Insurance Company	3,192	3,540	3,540
The Cincinnati Specialty Underwriters Insurance Company	189	211	211
CSU Producer Resources Inc.	1	1	1
Cincinnati Global Underwriting Ltd.	68	69	69
Cincinnati Financial Corporation	5	5	5
Total	6,552	7,180	7,180
Total fixed maturities	\$ 11,312	\$ 12,338	\$ 12,338

Schedule I (continued)

Cincinnati Financial Corporation and Subsidiaries Summary of Investments - Other Than Investments in Related Parties

(Dollars in millions)	At December 31, 2020		
Type of investment	Cost or amortized cost	Fair value	Balance sheet
Equity securities:			
Common equities:			
The Cincinnati Insurance Company	\$ 1,846	\$ 4,423	\$ 4,423
The Cincinnati Casualty Company	56	146	146
The Cincinnati Indemnity Company	17	36	36
The Cincinnati Specialty Underwriters Insurance Company	96	217	217
CSU Producer Resources Inc.	19	33	33
Cincinnati Financial Corporation	1,606	3,686	3,686
Total	3,640	8,541	8,541
Nonredeemable preferred equities:			
The Cincinnati Insurance Company	274	299	299
The Cincinnati Life Insurance Company	12	15	15
Cincinnati Financial Corporation	1	1	1
Total	287	315	315
Total equity securities	\$ 3,927	\$ 8,856	\$ 8,856
Other invested assets:			
Policy loans:			
The Cincinnati Life Insurance Company	\$ 33	—	\$ 33
Deposits at Lloyd's:			
Cincinnati Global Underwriting Ltd.	53	—	53
Cincinnati Financial Corporation	109	—	109
Private equity:			
The Cincinnati Insurance Company (1)	94	—	94
The Cincinnati Life Insurance Company (1)	3	—	3
Cincinnati Financial Corporation (1)	31	—	31
Real estate:			
The Cincinnati Insurance Company (1)	11	—	11
The Cincinnati Life Insurance Company (1)	9	—	9
Cincinnati Financial Corporation (1)	5	—	5
Total other invested assets	\$ 348	—	\$ 348
Total investments	\$ 15,587	—	\$ 21,542

Notes to Schedule I:

(1) These other invested assets are accounted for under the equity method.

Schedule II

Cincinnati Financial Corporation (parent company only) Condensed Balance Sheets

(Dollars in millions)	At December 31,	
	2020	2019
Assets		
Investments		
Fixed maturities, at fair value (amortized cost: 2020—\$69; 2019—\$49)	\$ 68	\$ 49
Equity securities, at fair value (cost: 2020—\$1,607; 2019—\$1,427)	3,687	3,069
Other invested assets	145	103
Total investments	3,900	3,221
Cash and cash equivalents	16	197
Equity in net assets of subsidiaries	7,982	7,424
Investment income receivable	8	7
Land, building and equipment, net, for company use (accumulated depreciation: 2020—\$138; 2019—\$129)	143	141
Income tax receivable	5	2
Other assets	53	61
Due from subsidiaries	110	107
Total assets	\$ 12,217	\$ 11,160
Liabilities		
Dividends declared but unpaid	\$ 97	\$ 91
Deferred federal income tax	429	345
Long-term debt	788	788
Other liabilities	114	72
Total liabilities	1,428	1,296
Shareholders' Equity		
Common stock	397	397
Paid-in capital	1,328	1,306
Retained earnings	10,085	9,257
Accumulated other comprehensive income	769	448
Treasury stock, at cost	(1,790)	(1,544)
Total shareholders' equity	10,789	9,864
Total liabilities and shareholders' equity	\$ 12,217	\$ 11,160

This condensed financial information should be read in conjunction with the Consolidated Financial Statements and Notes included in Part II, Item 8.

Schedule II (continued)

Cincinnati Financial Corporation (parent company only) Condensed Statements of Income and Comprehensive Income

(Dollars in millions)

	Years ended December 31,		
	2020	2019	2018
Revenues			
Investment income, net of expenses	\$ 81	\$ 75	\$ 65
Investment gains and losses, net	556	728	(108)
Other revenue	15	15	15
Total revenues	652	818	(28)
Expenses			
Interest expense	54	52	52
Other expenses	34	37	31
Total expenses	88	89	83
Income (Loss) Before Income Taxes and Earnings of Subsidiaries	564	729	(111)
Provision (Benefit) for Income Taxes	111	146	(31)
Net Income (Loss) Before Earnings of Subsidiaries	453	583	(80)
Increase in equity of subsidiaries	763	1,414	367
Net Income	\$ 1,216	\$ 1,997	\$ 287
Other Comprehensive Income (Loss), Net of Taxes			
Change in unrealized gain (loss) on securities	—	—	(2)
Amortization of pension actuarial gains (losses) and prior service costs	(25)	5	(3)
Other Comprehensive Income (Loss), Net of Taxes Before Other Comprehensive Income of Subsidiaries	(25)	5	(5)
Other comprehensive income (loss) of subsidiaries	346	421	(258)
Other comprehensive income (loss)	321	426	(263)
Comprehensive Income	\$ 1,537	\$ 2,423	\$ 24

This condensed financial information should be read in conjunction with the Consolidated Financial Statements and Notes included in Part II, Item 8.

Schedule II (continued)

Cincinnati Financial Corporation (parent company only) Condensed Statements of Cash Flows

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Cash Flows From Operating Activities			
Net income	\$ 1,216	\$ 1,997	\$ 287
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	12	10	7
Investment gains and losses, net	(552)	(720)	114
Dividends from subsidiaries	550	625	500
Changes in:			
Increase in equity of subsidiaries	(763)	(1,414)	(367)
Investment income receivable	(1)	(1)	2
Current federal income taxes	(3)	(1)	14
Deferred income tax	91	146	(35)
Other assets	—	4	(17)
Other liabilities	1	4	3
Intercompany receivable for operations	34	20	19
Net cash provided by operating activities	<u>585</u>	<u>670</u>	<u>527</u>
Cash Flows From Investing Activities			
Sale of fixed maturities	—	3	1
Call or maturity of fixed maturities	1	21	19
Sale of equity securities	307	122	131
Purchase of fixed maturities	(23)	(39)	(17)
Purchase of equity securities	(372)	(237)	(177)
Investment in buildings and equipment	(11)	(13)	(12)
Cash paid for acquisition	—	(63)	—
Change in other invested assets, net	(42)	(67)	(11)
Net cash used in investing activities	<u>(140)</u>	<u>(273)</u>	<u>(66)</u>
Cash Flows From Financing Activities			
Payment of cash dividends to shareholders	(375)	(355)	(336)
Shares acquired - share repurchase authorization	(261)	(67)	(125)
Proceeds from stock options exercised	7	11	9
Other	3	2	1
Net cash used in financing activities	<u>(626)</u>	<u>(409)</u>	<u>(451)</u>
Net change in cash and cash equivalents	<u>(181)</u>	<u>(12)</u>	<u>10</u>
Cash and cash equivalents at beginning of year	<u>197</u>	<u>209</u>	<u>199</u>
Cash and cash equivalents at end of year	<u>\$ 16</u>	<u>\$ 197</u>	<u>\$ 209</u>

This condensed financial information should be read in conjunction with the Consolidated Financial Statements and Notes included in Part II, Item 8.

Schedule III

Cincinnati Financial Corporation and Subsidiaries Supplementary Insurance Information

(Dollars in millions)

	Years ended December 31,		
	2020	2019	2018
Deferred policy acquisition costs:			
Commercial lines insurance	\$ 317	\$ 311	\$ 291
Personal lines insurance	136	130	126
Excess and surplus lines insurance	28	25	21
Other	61	46	26
Total property casualty insurance	542	512	464
Life insurance	263	262	274
Total	\$ 805	\$ 774	\$ 738
Gross future policy benefits, losses, claims and expense losses:			
Commercial lines insurance	\$ 4,881	\$ 4,569	\$ 4,466
Personal lines insurance	739	687	679
Excess and surplus lines insurance	446	351	298
Other	611	481	203
Total property casualty insurance	6,677	6,088	5,646
Life insurance	2,938	2,859	2,802
Total (1)	\$ 9,615	\$ 8,947	\$ 8,448
Gross unearned premiums:			
Commercial lines insurance	\$ 1,714	\$ 1,665	\$ 1,576
Personal lines insurance	797	757	725
Excess and surplus lines insurance	175	152	123
Other	273	213	91
Total property casualty insurance	2,959	2,787	2,515
Life insurance	1	1	1
Total (1)	\$ 2,960	\$ 2,788	\$ 2,516
Other policy claims and benefits payable:			
Commercial lines insurance	\$ —	\$ —	\$ —
Personal lines insurance	—	—	—
Excess and surplus lines insurance	—	—	—
Other	—	—	—
Total property casualty insurance	—	—	—
Life insurance	46	35	38
Total (1)	\$ 46	\$ 35	\$ 38
Earned premiums:			
Commercial lines insurance	\$ 3,476	\$ 3,319	\$ 3,218
Personal lines insurance	1,463	1,404	1,336
Excess and surplus lines insurance	325	278	234
Other	427	333	132
Total property casualty insurance	5,691	5,334	4,920
Life insurance	289	270	250
Total	\$ 5,980	\$ 5,604	\$ 5,170

Schedule III (continued)

Cincinnati Financial Corporation and Subsidiaries Supplementary Insurance Information

(Dollars in millions)

	Years ended December 31,		
	2020	2019	2018
Investment income, net of expenses:			
Commercial lines insurance	\$ —	\$ —	\$ —
Personal lines insurance	—	—	—
Excess and surplus lines insurance	—	—	—
Other	—	—	—
Total property casualty insurance (2)	431	419	401
Life insurance	158	152	153
Total	\$ 589	\$ 571	\$ 554
Benefits, claims losses and settlement expenses:			
Commercial lines insurance	\$ 2,336	\$ 2,030	\$ 2,049
Personal lines insurance	977	985	972
Excess and surplus lines insurance	199	142	104
Other	325	195	98
Total property casualty insurance	3,837	3,352	3,223
Life insurance	297	286	267
Total	\$ 4,134	\$ 3,638	\$ 3,490
Amortization of deferred policy acquisition costs:			
Commercial lines insurance	\$ 664	\$ 631	\$ 608
Personal lines insurance	256	251	242
Excess and surplus lines insurance	51	47	39
Other	86	57	18
Total property casualty insurance	1,057	986	907
Life insurance	49	48	39
Total (3)	\$ 1,106	\$ 1,034	\$ 946
Underwriting, acquisition and insurance expenses:			
Commercial lines insurance	\$ 415	\$ 422	\$ 415
Personal lines insurance	187	164	147
Excess and surplus lines insurance	43	38	29
Other	42	42	24
Total property casualty insurance	687	666	615
Life insurance	36	38	36
Total (3)	\$ 723	\$ 704	\$ 651
Net written premiums:			
Commercial lines insurance	\$ 3,534	\$ 3,410	\$ 3,245
Personal lines insurance	1,503	1,435	1,378
Excess and surplus lines insurance	348	303	249
Other	479	368	158
Total property casualty insurance	5,864	5,516	5,030
Accident and health insurance	2	2	3
Total	\$ 5,866	\$ 5,518	\$ 5,033

Notes to Schedule III:

(1) The sum of gross future policy benefits, losses, claims and expense losses, gross unearned premiums and other policy claims and benefits payable is equal to the sum of Loss and loss expense reserves, Life policy reserves and investment contract reserves and Unearned premiums reported in the company's consolidated balance sheets.

(2) This segment information is not regularly allocated to segments and reviewed by company management in making decisions about resources to be allocated to the segments or to assess their performance.

(3) The sum of amortization of deferred policy acquisition costs and other underwriting and insurance expenses is equal to Underwriting, acquisition and insurance expenses in the consolidated statements of income.

Schedule IV

Cincinnati Financial Corporation and Subsidiaries Reinsurance

(Dollars in millions)

	Years ended December 31,		
	2020	2019	2018
Gross amounts:			
Life insurance in force	\$ 111,756	\$ 108,130	\$ 104,726
Earned premiums			
Commercial lines insurance	\$ 3,578	\$ 3,421	\$ 3,314
Personal lines insurance	1,503	1,446	1,372
Excess and surplus lines insurance	341	292	245
Other	201	181	—
Total property casualty insurance	5,623	5,340	4,931
Life insurance	362	341	320
Total	\$ 5,985	\$ 5,681	\$ 5,251
Ceded amounts to other companies:			
Life insurance in force	\$ 38,281	\$ 38,146	\$ 38,584
Earned premiums			
Commercial lines insurance	\$ 109	\$ 109	\$ 104
Personal lines insurance	41	43	37
Excess and surplus lines insurance	16	14	11
Other	51	39	8
Total property casualty insurance	217	205	160
Life insurance	73	71	70
Total	\$ 290	\$ 276	\$ 230
Assumed amounts from other companies:			
Life insurance in force	\$ —	\$ —	\$ —
Earned premiums			
Commercial lines insurance	\$ 7	\$ 7	\$ 8
Personal lines insurance	1	1	1
Excess and surplus lines insurance	—	—	—
Other	277	191	140
Total property casualty insurance	285	199	149
Life insurance	—	—	—
Total	\$ 285	\$ 199	\$ 149
Net amounts:			
Life insurance in force	\$ 73,475	\$ 69,984	\$ 66,142
Earned premiums			
Commercial lines insurance	\$ 3,476	\$ 3,319	\$ 3,218
Personal lines insurance	1,463	1,404	1,336
Excess and surplus lines insurance	325	278	234
Other	427	333	132
Total property casualty insurance	5,691	5,334	4,920
Life insurance	289	270	250
Total	\$ 5,980	\$ 5,604	\$ 5,170
Percentage of amounts assumed to net:			
Life insurance in force	— %	— %	— %
Earned premiums			
Commercial lines insurance	0.2 %	0.2 %	0.3 %
Personal lines insurance	0.1	0.1	0.1
Excess and surplus lines insurance	—	—	—
Other	64.9	57.4	106.1
Total property casualty insurance	5.0	3.7	3.0
Life insurance	—	—	—
Total	4.8	3.6	2.9

Schedule V

Cincinnati Financial Corporation and Subsidiaries
Valuation and Qualifying Accounts

(Dollars in millions)	At December 31,		
	2020	2019	2018
Allowance for credit losses (1):			
Beginning balance, January 1	\$ 8	\$ 6	\$ 6
Cumulative effect of change in accounting for credit losses as of January 1, 2020, pretax	3	—	—
Additions charged to costs and expenses	19	8	6
Deductions	(8)	(6)	(6)
Ending balance, December 31	\$ 22	\$ 8	\$ 6
Deferred tax valuation allowance:			
Beginning balance, January 1	\$ 41	\$ —	\$ —
Additions charged to costs and expenses	15	55	—
Deductions	—	(14)	—
Ending balance, December 31	56	41	—
Total valuation and qualifying accounts	\$ 78	\$ 49	\$ 6

Notes to Schedule V:

(1) Includes allowances for credit losses related to premiums receivable, reinsurance recoverable and finance receivables.

Schedule VI

Cincinnati Financial Corporation and Subsidiaries Supplementary Information Concerning Property Casualty Insurance Operations

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Deferred policy acquisition costs:			
Commercial lines insurance	\$ 317	\$ 311	\$ 291
Personal lines insurance	136	130	126
Excess and surplus lines insurance	28	25	21
Other	61	46	26
Total	<u>\$ 542</u>	<u>\$ 512</u>	<u>\$ 464</u>
Reserves for unpaid claims and claim adjustment expenses:			
Commercial lines insurance	\$ 4,881	\$ 4,569	\$ 4,466
Personal lines insurance	739	687	679
Excess and surplus lines insurance	446	351	298
Other	611	481	203
Total	<u>\$ 6,677</u>	<u>\$ 6,088</u>	<u>\$ 5,646</u>
Reserve discount deducted	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Gross unearned premiums:			
Commercial lines insurance	\$ 1,714	\$ 1,665	\$ 1,576
Personal lines insurance	797	757	725
Excess and surplus lines insurance	175	152	123
Other	273	213	91
Total	<u>\$ 2,959</u>	<u>\$ 2,787</u>	<u>\$ 2,515</u>
Earned premiums:			
Commercial lines insurance	\$ 3,476	\$ 3,319	\$ 3,218
Personal lines insurance	1,463	1,404	1,336
Excess and surplus lines insurance	325	278	234
Other	427	333	132
Total	<u>\$ 5,691</u>	<u>\$ 5,334</u>	<u>\$ 4,920</u>
Investment income, net of expenses:			
Commercial lines insurance	\$ —	\$ —	\$ —
Personal lines insurance	—	—	—
Excess and surplus lines insurance	—	—	—
Other	—	—	—
Total (1)	<u>\$ 431</u>	<u>\$ 419</u>	<u>\$ 401</u>

Note to Schedule VI:

(1) This segment information is not regularly allocated to segments and not reviewed by company management in making decisions about resources to be allocated to the segments or to assess their performance.

Schedule VI (continued)

Cincinnati Financial Corporation and Subsidiaries Supplementary Information Concerning Property Casualty Insurance Operations

(Dollars in millions)	Years ended December 31,		
	2020	2019	2018
Loss and loss expenses incurred related to current accident year:			
Commercial lines insurance	\$ 2,431	\$ 2,222	\$ 2,206
Personal lines insurance	995	1,012	960
Excess and surplus lines insurance	192	153	128
Other	350	213	96
Total	<u>\$ 3,968</u>	<u>\$ 3,600</u>	<u>\$ 3,390</u>
Loss and loss expenses incurred related to prior accident years:			
Commercial lines insurance	\$ (95)	\$ (192)	\$ (157)
Personal lines insurance	(18)	(27)	13
Excess and surplus lines insurance	7	(11)	(24)
Other	(25)	(18)	1
Total	<u>\$ (131)</u>	<u>\$ (248)</u>	<u>\$ (167)</u>
Amortization of deferred policy acquisition costs:			
Commercial lines insurance	\$ 664	\$ 631	\$ 608
Personal lines insurance	256	251	242
Excess and surplus lines insurance	51	47	39
Other	86	57	18
Total	<u>\$ 1,057</u>	<u>\$ 986</u>	<u>\$ 907</u>
Paid loss and loss expenses:			
Commercial lines insurance	\$ 1,969	\$ 2,023	\$ 1,816
Personal lines insurance	921	966	913
Excess and surplus lines insurance	112	90	74
Other	181	181	44
Total	<u>\$ 3,183</u>	<u>\$ 3,260</u>	<u>\$ 2,847</u>
Net written premiums:			
Commercial lines insurance	\$ 3,534	\$ 3,410	\$ 3,245
Personal lines insurance	1,503	1,435	1,378
Excess and surplus lines insurance	348	303	249
Other	479	368	158
Total	<u>\$ 5,864</u>	<u>\$ 5,516</u>	<u>\$ 5,030</u>

Index of Exhibits

Exhibit No.	Exhibit Description
3.1	Amended and Restated Articles of Incorporation of Cincinnati Financial Corporation (incorporated by reference to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, Exhibit 3.1)
3.2	Amended and Restated Code of Regulations of Cincinnati Financial Corporation, as of May 5, 2018 (incorporated by reference to the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, Exhibit 3.2)
4.1	Indenture with The Bank of New York Trust Company (incorporated by reference to the company's Current Report on Form 8-K dated November 2, 2004, filed with respect to the issuance of the company's 6.125% Senior Notes due November 1, 2034)
4.2	Supplemental Indenture with The Bank of New York Trust Company (incorporated by reference to the company's Current Report on Form 8-K dated November 2, 2004, filed with respect to the issuance of the company's 6.125% Senior Notes due November 1, 2034)
4.3	Second Supplemental Indenture with The Bank of New York Trust Company (incorporated by reference to the company's Current Report on Form 8-K dated May 9, 2005, filed with respect to the completion of the company's exchange offer and rescission offer for its 6.90% senior debentures due 2028)
4.4	Form of 6.125% Exchange Note Due 2034 (included in Exhibit 4.2)
4.5	Form of 6.92% Debentures Due 2028 (included in Exhibit 4.3)
4.6	Indenture with the First National Bank of Chicago (subsequently assigned to The Bank of New York Trust Company) (incorporated by reference to the company's registration statement on Form S-3 filed on May 20, 1998 (File No. 333-51677))
4.7	Form of 6.90% Debentures Due 2028 (included in Exhibit 4.6)
4.8	Description of Registered Securities
10.1	Cincinnati Financial Corporation Nonemployee Director Stock Plan of 2018 (incorporated by reference to the company's definitive Proxy Statement dated March 21, 2018)
10.2	First Amendment to Cincinnati Financial Corporation Nonemployee Director Stock Plan of 2018
10.3	Cincinnati Financial Corporation Nonemployee Director Deferred Compensation Plan
10.4	Cincinnati Financial Corporation Stock Option Plan No. VII (incorporated by reference to the company's definitive Proxy Statement dated March 8, 2002) (File No. 000-04604)
10.5	Cincinnati Financial Corporation Annual Incentive Compensation Plan of 2009, as amended January 31, 2014 (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated February 3, 2014)
10.6	Cincinnati Financial Corporation Annual Incentive Compensation Plan of 2009, Amended and Restated on January 29, 2021
10.7	Cincinnati Financial Corporation 2006 Stock Compensation Plan (incorporated by reference to the company's definitive Proxy Statement dated March 30, 2006)
10.8	Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to the company's definitive Proxy Statement dated March 16, 2012)
10.9	Cincinnati Financial Corporation 2016 Stock Compensation Plan (incorporated by reference to the company's Definitive Proxy Statement dated March 16, 2016, Appendix B)
10.10	First Amendment of Cincinnati Financial Corporation 2016 Stock Compensation Plan (incorporated by reference to Exhibit 99.1 filed with the Company's current report on Form 8-K dated April 11, 2016)
10.11	Amended and Restated Cincinnati Financial Corporation Supplemental Retirement Plan dated January 1, 2009 (incorporated by reference to Exhibit 10.7 filed with the company's Annual Report on Form 10-K dated February 27, 2013)
10.12	Form of Incentive Stock Option Agreement for Stock Option Plan VII (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated October 20, 2006)
10.13	Form of Nonqualified Stock Option Agreement for Stock Option Plan VII (incorporated by reference to Exhibit 10.2 filed with the company's Current Report on Form 8-K dated October 20, 2006)
10.14	Form of Incentive Stock Option Agreement for the 2006 Stock Compensation Plan (incorporated by reference to Exhibit 10.3 filed with the company's Current Report on Form 8-K dated October 20, 2006)

Exhibit No.	Exhibit Description
10.15	Form of Nonqualified Stock Option Agreement for the 2006 Stock Compensation Plan (incorporated by reference to Exhibit 10.4 filed with the company's Current Report on Form 8-K dated October 20, 2006)
10.16	Form of Incentive Stock Option Agreement for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated February 21, 2013)
10.17	Form of Nonqualified Stock Option Agreement for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.2 filed with the company's Current Report on Form 8-K dated February 21, 2013)
10.18	Form of Restricted Stock Unit Agreement (service based) for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.3 filed with the company's Current Report on Form 8-K dated February 21, 2013)
10.19	Form of Restricted Stock Unit Agreement (service based/ratable) for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated February 13, 2015)
10.20	Form of Restricted Stock Unit Agreement (performance based) for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.4 filed with the company's Current Report on Form 8-K dated February 21, 2013)
10.21	Form of Incentive Compensation Agreement for the Cincinnati Financial Corporation Incentive Compensation Plan of 2009 (as amended January 31, 2014) (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.22	Form of Incentive Stock Option Agreement for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.2 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.23	Form of Nonqualified Stock Option Agreement for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.3 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.24	Form of Restricted Stock Unit Agreement (service based/cliff) for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.4 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.25	Form of Restricted Stock Unit Agreement (service based/ratable) for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.5 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.26	Form of Restricted Stock Unit Agreement (performance-based) for the Cincinnati Financial Corporation 2012 Stock Compensation Plan (incorporated by reference to Exhibit 10.6 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.27	Form of Incentive Stock Option Agreement for the Cincinnati Financial Corporation 2016 Stock Compensation Plan (incorporated by reference to Exhibit 10.7 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.28	Form of Nonqualified Stock Option Agreement for the Cincinnati Financial Corporation 2016 Stock Compensation Plan (incorporated by reference to Exhibit 10.8 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.29	Form of Restricted Stock Unit Agreement (service based/cliff) for the Cincinnati Financial Corporation 2016 Stock Compensation Plan (incorporated by reference to Exhibit 10.9 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.30	Form of Restricted Stock Unit Agreement (service based/ratable) for the Cincinnati Financial Corporation 2016 Stock Compensation Plan (incorporated by reference to Exhibit 10.10 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.31	Form of Restricted Stock Unit Agreement (performance based) for the Cincinnati Financial Corporation 2016 Stock Compensation Plan (incorporated by reference to Exhibit 10.11 filed with the company's Current Report on Form 8-K dated January 30, 2017)
10.32	Amended and Restated Cincinnati Financial Corporation Top Hat Savings Plan dated January 1, 2018 (incorporated by reference to Exhibit 10.31 filed with the company's Form 10-K dated February 23, 2018)
10.33	Cincinnati Financial Corporation Executive Deferred Compensation Agreement by and between the Cincinnati Financial Corporation and Michael J. Sewell, dated as of October 25, 2011 (incorporated by reference to Exhibit 10.2 filed with the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2011)

Exhibit No.	Exhibit Description
10.34	Amended and Restated Credit Agreement by and among Cincinnati Financial Corporation, CFC Investment Company, PNC Bank, N.A. as Administrative Agent, PNC Capital Markets LLC, as Sole Bookrunner and Joint Lead Arranger, Fifth Third Bank, N.A., as Joint Lead Arranger and Syndication Agent, The Huntington National Bank and U.S. Bank, N.A., as Documentation Agents, dated May 13, 2014 (incorporated by reference to the company's Current Report on Form 8-K dated May 13, 2014, Exhibit 10.1)
10.35	First Amendment of the Amended and Restated Credit Agreement by and among Cincinnati Financial Corporation, CFC Investment Company, PNC Bank, N.A. as Administrative Agent, PNC Capital Markets LLC, as Sole Bookrunner and Joint Lead Arranger, Fifth Third Bank, N.A., as Joint Lead Arranger and Syndication Agent, The Huntington National Bank and U.S. Bank, N.A., as Documentation Agents, dated February 8, 2016 (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated February 8, 2016)
10.36	Second Amendment of the Amended and Restated Credit Agreement by and among Cincinnati Financial Corporation, CFC Investment Company, PNC Bank, N.A., as Administrative Agent, PNC Capital Markets, LLC, as Sole Bookrunner and Joint Lead Arranger, Fifth Third Bank, N.A. as Joint Lead Arranger and Syndication Agent, The Huntington National Bank and U.S. Bank, N.A. as Documentation Agents, dated March 31, 2016 (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated April 4, 2016)
10.37	Third Amendment of the Amended and Restated Credit Agreement by and among Cincinnati Financial Corporation, CFC Investment Company, PNC Bank, N.A., as Administrative Agent, PNC Capital Markets, LLC, as Sole Bookrunner and Joint Lead Arranger, Fifth Third Bank, N.A. as Joint Lead Arranger and Syndication Agent, The Huntington National Bank and U.S. Bank, N.A. as Documentation Agents, dated February 4, 2019 (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated February 6, 2019)
10.38	Fourth Amendment of the Amended and Restated Credit Agreement by and among Cincinnati Financial Corporation, CFC Investment Company, PNC Bank, N.A., as Administrative Agent, PNC Capital Markets, LLC, as Sole Bookrunner and Joint Lead Arranger, Fifth Third Bank, N.A. as Joint Lead Arranger and Syndication Agent, The Huntington National Bank and U.S. Bank, N.A. as Documentation Agents, dated February 26, 2019 (incorporated by reference to Exhibit 10.6 filed with the company's Current Report on Form 8-K dated February 28, 2019)
10.39	Limited Consent to Credit Agreement, dated December 6, 2019, among Cincinnati Financial Corporation, CFC Investment Company, PNC Bank, N.A., Fifth Third Bank, N.A., The Huntington National Bank, U.S. Bank, N.A., and Branch Banking and Trust Company (incorporated by reference to Exhibit 10.6 filed with the company's Current Report on Form 8-K, dated December 6, 2019)
10.40	Limited Consent to Credit Agreement, dated December 11, 2020, among Cincinnati Financial Corporation, CFC Investment Company, PNC Bank, N.A., Fifth Third Bank, N.A., The Huntington National Bank, U.S. Bank, N.A., and Branch Banking and Trust Company (incorporated by reference to Exhibit 10.7 filed with the company's Current Report on Form 8-K, dated December 11, 2020)
10.41	Reimbursement Agreement for Letters of Credit by and between Bank of Nova Scotia and The Cincinnati Insurance Company, dated October 15, 2018 (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated October 17, 2018)
10.42	Letter of Credit Facility Agreement by and between Cincinnati Financial Corporation, as Borrower, and The Bank of Nova Scotia, as Bank, dated February 25, 2019 (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K dated February 28, 2019)
10.43	Amendment Letter No. 1 to the Letter of Credit Facility Agreement, dated November 4, 2019 (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K, dated November 5, 2019)
10.44	Amendment Letter No. 2 to the Letter of Credit Facility Agreement, dated October 30, 2020 (incorporated by reference to Exhibit 10.1 filed with the company's Current Report on Form 8-K, dated November 2, 2020)
11	Statement re: Computation of per share earnings for the years ended December 31, 2020, 2019, and 2018, contained in Part II, Item 8, Note 12, to the Consolidated Financial Statements
14	Cincinnati Financial Corporation Code of Ethics for Senior Financial Officers (incorporated by reference to the company's definitive Proxy Statement dated March 18, 2004 (File No. 000-04604))
21	Cincinnati Financial Corporation subsidiaries contained in Part I, Item 1, of this report
23	Consent of Independent Registered Public Accounting Firm
31A	Certification pursuant to Section 302 of the Sarbanes Oxley Act of 2002 – Chief Executive Officer
31B	Certification pursuant to Section 302 of the Sarbanes Oxley Act of 2002 – Chief Financial Officer
32	Certification pursuant to Section 906 of the Sarbanes Oxley Act of 2002

Exhibit No.	Exhibit Description
101.INS	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

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.

Cincinnati Financial Corporation

/S/ Michael J. Sewell

By: Michael J. Sewell, CPA

Title: Chief Financial Officer, Senior Vice President and Treasurer
(Principal Accounting Officer)

Date: February 25, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been duly signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/S/ Steven J. Johnston	Chairman, President, Chief Executive Officer and Director	February 25, 2021
Steven J. Johnston		
/S/ Michael J. Sewell	Chief Financial Officer, Senior Vice President and Treasurer	February 25, 2021
Michael J. Sewell		
/S/ Thomas J. Aaron	Director	February 25, 2021
Thomas J. Aaron		
/S/ William F. Bahl	Director	February 25, 2021
William F. Bahl		
/S/ Nancy C. Benacci	Director	February 25, 2021
Nancy C. Benacci		
/S/ Dirk J. Debbink	Director	February 25, 2021
Dirk J. Debbink		
/S/ Linda W. Clement-Holmes	Director	February 25, 2021
Linda W. Clement-Holmes		
/S/ Kenneth C. Lichtendahl	Director	February 25, 2021
Kenneth C. Lichtendahl		
/S/ David P. Osborn	Director	February 25, 2021
David P. Osborn		
/S/ Jill P. Meyer Pratt	Director	February 25, 2021
Jill P. Meyer Pratt		
/S/ Gretchen W. Schar	Director	February 25, 2021
Gretchen W. Schar		
/S/ Charles O. Schiff	Director	February 25, 2021
Charles O. Schiff		
/S/ Thomas R. Schiff	Director	February 25, 2021
Thomas R. Schiff		
/S/ Douglas S. Skidmore	Director	February 25, 2021
Douglas S. Skidmore		
/S/ John F. Steele, Jr.	Director	February 25, 2021
John F. Steele, Jr.		
/S/ Larry R. Webb	Director	February 25, 2021
Larry R. Webb		

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

DESCRIPTION OF COMMON STOCK

The following description of our common stock is based upon our Amended and Restated Articles of Incorporation ("Articles"), our Amended and Restated Code of Regulations ("Regulations") and applicable provisions of law. We have summarized certain portions of the Articles and Regulations below. The summary is not complete and is subject to, and is qualified in its entirety by express reference to, the provisions of our Articles and Regulations, each of which is filed as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.8 is a part.

Authorized Capital Stock

Under the Articles, Cincinnati Financial Corporation's authorized capital stock consists of 500,000,000 shares of common stock, \$2.00 par value.

Common Stock

Common Stock Outstanding. The outstanding shares of the Company's common stock are duly authorized, validly issued, fully paid and nonassessable. The Company's common stock is listed and principally traded on the Nasdaq Global Select Market under the ticker symbol "CINF."

Voting Rights. Each holder of shares of the Company's common stock is entitled to one vote for each share held of record on the applicable record date on all matters submitted to a vote of shareholders.

No Action by Shareholder Consent. Shareholders are not permitted under the Company's Articles or Regulations to act by written consent in lieu of a meeting.

Power to Call Special Meeting. The Company's Articles vest the power to call special meetings of shareholders in the Company's Chief Executive Officer, board of directors or shareholders holding shares representing not less than 50% of the outstanding votes entitled to vote at the meeting.

Proxy Access Nominations. Under our Regulations, a shareholder (or a group of up to 20 shareholders) who has held at least 3% of our common stock for three years or more may nominate a director and have that nominee included in our proxy materials, provided that the shareholder and nominee satisfy the requirements specified in our Regulations. Any shareholder who intends to use these procedures to nominate a candidate for election to the board of directors for inclusion in our proxy statement must satisfy the requirements specified in our Regulations.

Dividend Rights. Holders of the Company's common stock are entitled to receive dividends as may be declared from time to time by the Company's board of directors out of funds legally available therefor.

Rights upon Liquidation. Holders of the Company's common stock are entitled to share pro rata, upon any liquidation or dissolution of Cincinnati Financial Corporation, in all remaining assets available for distribution to shareholders after payment or providing for the Company's liabilities.

Preemptive Rights. Holders of the Company's common stock have no preemptive right to purchase, subscribe for or otherwise acquire any unissued or treasury shares or other securities.

Transfer Agent and Registrar. Equiniti Trust Company d/b/a EQ Shareowner Services is the transfer agent and registrar for the Company's common stock.

Certain Anti-Takeover Effects of Ohio Law

Ohio Law. Certain provisions of Ohio law and our Articles may have the effect of discouraging or rendering more difficult an unsolicited acquisition of the company. The summary of these provisions may not contain all the information that is important to you and is subject to, and is qualified in its entirety by reference to, all sections of the Ohio Revised Code and our Articles. See "Where You Can Find More Information."

Section 1701.831 of the Ohio Revised Code requires the prior authorization of the shareholders of certain corporations in order for any person to acquire, either directly or indirectly, shares of that corporation that would entitle the acquiring person to exercise or direct the exercise of 20% or more of the voting power of that corporation in the election of directors or to exceed specified other percentages of voting power. In the event an acquiring person proposes to make such an acquisition, the person is required to deliver to the corporation a statement disclosing, among other things, the number of shares owned, directly or indirectly, by the person, the range of voting power that may result from the proposed acquisition and the identity of the acquiring person. Within ten days after receipt of this statement, the corporation must call a special meeting of shareholders to vote on the proposed acquisition. The acquiring person may complete the proposed acquisition only if the acquisition is approved by the affirmative vote of the holders of at least a majority of the voting power of all shares entitled to vote in the election of directors represented at the meeting excluding the voting power of all "interested shares." Interested shares include any shares held by the acquiring person and those held by officers and directors of the corporation.

Chapter 1704 of the Ohio Revised Code prohibits certain business combinations and transactions between an "issuing public corporation" and an "interested shareholder" for at least three years after the interested shareholder attains 10% ownership, unless the board of directors of the issuing public corporation approves the transaction before the interested shareholder attains 10% ownership. An "issuing public corporation" is an Ohio corporation with 50 or more shareholders that has its principal place of business, principal executive offices, or substantial assets within the State of Ohio, and as to which no close corporation agreement exists. An "interested shareholder" is a beneficial owner of 10% or more of the shares of a corporation. Examples of transactions regulated by Chapter 1704 include the disposition of assets, mergers and consolidations, voluntary dissolutions and the transfer of shares.

Subsequent to the three-year period, a transaction subject to Chapter 1704 may take place provided that certain conditions are satisfied, including:

- (i) before the interested shareholder's share acquisition date, the board of directors approved the purchase of shares by the interested shareholder;
- (ii) the transaction is approved by the holders of shares with at least 66 2/3% of the voting power of the corporation (or a different proportion set forth in the articles of incorporation), including at least a majority of the outstanding shares after excluding shares controlled by the Ohio law interested shareholder; or
- (iii) the business combination results in shareholders, other than the Ohio law interested shareholder, receiving a fair price plus interest for their shares.

Each issuing public corporation has the ability to "opt out" of the application of Chapter 1704.

We have not opted out of the application of either Chapter 1704 or Section 1701.831.

Section 1707.041 of the Ohio Revised Code regulates certain tender offer "control bids" for corporations in Ohio with 50 or more shareholders that have significant Ohio contacts (as defined in that statute) and permits the Ohio Division of Securities to suspend a control bid if certain information is not provided to offerees.

Our Articles. Our Articles contain requirements for approval of certain business combinations involving the company. These provisions require that any business combination transactions involving the company and any holder of 10% or more of our common stock cannot be completed unless the transaction is approved by the affirmative vote of the holders of 75% of our common stock having voting power with respect to any such proposal. Our Articles further provide, however, that this shareholder approval requirement will not apply if the “fair price” requirement has been satisfied. Under the “fair price” provision, the cash, or fair market value of other consideration, to be received per share by holders of common stock of the Company in the business combination is not less than the greater of: (A) the highest per-share price (including brokerage commissions, soliciting dealers’ fees, dealer-management compensation, and other expenses, including, but not limited to, costs of newspaper advertisements, printing expenses, and attorney fees) paid by the other entity in acquiring any of its holdings of the common stock of the Company or, (B) an amount which bears the same or a greater percentage relationship to the market value price of the Company’s common stock immediately prior to the announcement of such business combination as the highest per-share price determined in (A) above bears to the market price of the Company’s common stock immediately prior to the commencement of acquisition of the Company’s common stock by the other entity but in no event in excess of two times the highest per-share price determined in (A) above.

**First Amendment To The
Cincinnati Financial Corporation
Non-Employee Directors' Stock Plan of 2018**

Pursuant to the authority granted under Section 8.a. of the Cincinnati Financial Corporation Non-Employee Directors' Stock Plan of 2018 (the "Plan"), Cincinnati Financial Corporation, acting through the compensation committee of the board of directors of Cincinnati Financial Corporation, hereby amends the Plan, effective as of January 1, 2021.

1. Section 6.a. shall be restated as follows:

Commencing with the year 2019 and each year thereafter, and further subject to deferral under 6.e. below, the Committee may award to each Participant shares of common stock equal to the Maximum Annual Award.

2. Section 6 shall further be amended to add the following, 6.e., to the end thereto:

Share awards may be deferred under the Cincinnati Financial Corporation Nonemployee Director Deferred Compensation Plan.

Executed on behalf of the Committee on the 28th day January, 2021.

By: /S/ David P. Osborn
David P. Osborn
Director
Cincinnati Financial Corporation
Compensation Committee Chairman

CINCINNATI FINANCIAL CORPORATION
NONEMPLOYEE DIRECTOR DEFERRED COMPENSATION PLAN

Effective January 1, 2021

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PREAMBLE

Cincinnati Financial Corporation adopted the Cincinnati Financial Corporation Nonemployee Director Deferred Compensation Plan (the "Plan") effective January 1, 2021. The Plan is an unfunded deferred compensation arrangement for the deferral of director Compensation for services rendered after December 31, 2020. The Plan is also intended to comply with Section 409A of the Internal Revenue Code of 1986, as amended (the "Code") and the regulations thereunder and shall be interpreted accordingly.

Article I

DEFINITIONS

1.1 “Account” means the bookkeeping account maintained for purposes of determining a Participant’s interest in the Plan. A Participant’s Account may include the following subaccounts.

(a) Deferred Compensation Account.

(b) Deferred Stock Awards Account.

Any adjustments made to a Participant’s Account under Article III shall be recorded by Class Year.

1.2 “Beneficiary” means the person or persons entitled to receive Plan benefits (if any) payable after a Participant’s death (includes contingent Beneficiaries, if applicable). A Beneficiary (or contingent Beneficiary) designation must be made in accordance with the Committee’s procedures during a Participant’s lifetime. A Participant may only change a beneficiary designation in accordance with the Committee’s procedures. If a Participant does not designate a Beneficiary, the Beneficiary will be the Participant’s surviving spouse. If there is no spouse, the Beneficiary will be the estate of the last to die of the Participant or the Participant’s designated Beneficiary.

1.3 “Board” means the board of directors of the Company.

1.4 “Class Year” means each year commencing on January 1 and ending on December 31.

1.5 “Code” means the Internal Revenue Code of 1986, as amended.

1.6 “Committee” means the compensation committee of the Board or a subcommittee thereof, any successor thereto or such other committee or subcommittee as may be designated by the Board to administer the Plan, which shall at all times consist of two or more nonemployee directors as defined under Rule 16b-3 under the Securities and Exchange Act of 1934, as amended, or any successor rule or definition adopted by the Securities and Exchange Commission. The Committee is responsible for the Plan’s administration.

1.7 “Company” means the Cincinnati Financial Corporation, a corporation organized under the laws of the State of Ohio, or any successor thereto, and any of its subsidiaries or affiliates.

1.8 “Compensation” means cash and stock payments and all other compensation payable to a Participant for his or her service to the Board and its committees which would otherwise be paid but for a Deferral Election hereunder.

1.9 “Deferred Compensation Account” means the subaccount established as a bookkeeping account to reflect cash compensation deferred by a Participant under Section 2.2, as adjusted in accordance with Article III, and reduced by distributions under Article IV.

1.10 “Deferred Stock Awards Account” means the subaccount established as a bookkeeping account to reflect the Stock Awards deferred by a Participant under Section 2.2, as adjusted in accordance with Article III, and reduced by distributions under Article IV.

1.11 “Deferral Election” means an election made by a Participant to defer his or her Compensation.

1.12 “Director Stock Plan” means the Nonemployee Director Stock Plan, and any successor plan thereto.

1.13 “Open Enrollment Period” means the period prescribed by the Committee (or its delegates), ending no later than the last day of the Plan Year immediately preceding the Plan Year for which elections to defer Compensation under Article II are permitted.

1.14 “Outside Director” means a director of the Company who is not an officer or employee of the Company and who has never been an officer or an employee of the Company.

1.15 “Participant” means an Outside Director of the Company who has a right to Plan benefits.

1.16 “Plan” means the Cincinnati Financial Corporation Nonemployee Director Deferred Compensation Plan as set forth in this document, as may be amended from time to time.

1.17 “Plan Year” means the 12-consecutive month period beginning on January 1st.

1.18 “Separation From Service” means a Participant’s “separation from service” (as defined by Code §409A and the regulations thereunder) with the Company and all related employers under Code §414.

1.19 “Stock Award” means an award granted under the Director Stock Plan.

1.20 “Unforeseeable Emergency” means a severe financial hardship to a Participant resulting from: (a) an illness or accident of the Participant or his or her spouse, Beneficiary or dependent (as defined by Code §152 without regard to Code §152(b)(1), (b)(2) and (d)(1)(B)); (b) loss of the Participant’s property due to casualty or other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the Participant’s control; or (c) other circumstances or events within the meaning of “unforeseeable emergency” under Code §409A and the regulations thereunder.

Article II

DEFERRALS, MATCHING ALLOCATIONS AND SUPPLEMENTAL BENEFIT ALLOCATIONS

2.1 Deferral Amounts. An Outside Director may elect to defer whole percentages of cash Compensation for a Plan Year and all, or a portion of, Stock Award Compensation for a Plan Year.

2.2 Deferral Elections.

- (a) First Year of Eligibility. If an Outside Director first becomes eligible to participate in the Plan during the Plan Year, the Outside Director may make a Deferral Election to defer Compensation by filing a properly completed deferral Election with the Committee in the form and manner required by the Committee. Such Deferral Election form must be properly filed with the Committee no later than thirty (30) days after the date the Outside Director first becomes eligible to participate in the Plan, or such earlier date specified by the Committee. The Outside Director's Deferral Election shall be effective only with respect to Compensation paid for services performed during the Plan Year in which the Outside Director first becomes eligible. Notwithstanding the foregoing, the Outside Director's Deferral Election shall apply only to Compensation paid for services performed after the election in accordance with Code §409A and the regulations thereunder.
- (b) Open Enrollment. An Outside Director may make a Deferral Election to defer Compensation that relates to services performed during a subsequent Plan Year during the applicable Open Enrollment Period by filing a properly completed Deferral Election with the Committee in the form and manner required by the Committee. Such Deferral Election form must be filed with the Committee no later than the end of the Open Enrollment Period, or such later date permitted by the Committee, but in no event later than the last day of the Plan Year immediately preceding the Plan Year to which the Deferral Election relates. The Outside Director's Deferral Election shall be effective only with respect to Compensation paid for services performed with respect to the applicable Plan Year.
- (c) Irrevocability Of Deferral Elections. An Outside Director's Deferral Election generally will become irrevocable upon the expiration of the deadlines specified in Sections 2.2(a) and 2.2(b). However, the Deferral Election may be cancelled upon the occurrence of an Unforeseeable Emergency.

2.3 Deferral Of Compensation.

- (a) Cash Compensation. An Outside Director is permitted to defer Compensation otherwise payable to an Outside Director during a Plan Year by the amount provided in his or her Deferral Election under Section 2.1. The deferred amounts

will be credited to the Outside Director's Deferred Compensation Account at the time determined by the Committee.

- (b) Stock Awards. An Outside Director is permitted to defer the receipt of Stock Awards earned in 2021 and after. The Stock Awards shall be subject to the terms and conditions under the Director Stock Plan, except with respect to the terms specifically provided under this Plan. The deferred amounts will be credited to the Outside Director's Deferred Stock Awards Account at the time determined by the Committee and consistent with the terms provided under the Director Stock Plan.

Article III

INVESTMENTS

3.1 Initial Investment Elections. At the time an Outside Director first becomes eligible to participate in the Plan, he or she may elect how his or her Deferred Compensation Account is invested among hypothetical investment alternatives determined by the Committee. The election must be made in the manner required by the Committee. If a Participant fails to make an initial investment election, his or her Account will be invested in the manner determined by the Committee until the Participant makes a proper investment election.

3.2 Changing Investment Elections. A Participant may elect to change investment elections with respect to the Participant's Deferred Compensation Account in the manner, and at the times, determined by the Committee. A Participant's investment elections will become effective within a reasonable time pursuant to rules established by the Committee.

3.3 Earnings Index And Account Adjustments. A Participant's investment elections will only be used as an index to determine earnings or losses credited or debited to his or her Deferred Compensation Account. A Participant's Deferred Compensation Account will be increased or decreased as if the Participant had accrued earnings or losses at the rate corresponding to the Participant's hypothetical investment elections. The Committee will determine the time and method of Deferred Compensation Account adjustments and the recordkeeping methodologies that will be used.

3.4 Hypothetical Investment Alternatives. The Committee may select (or change) the Plan's hypothetical investment alternatives at any time. A Participant's election of a hypothetical investment alternative will not be considered as an investment of assets on behalf of the Participant. If the Committee decides to invest assets in any of the Plan's hypothetical investment alternatives, no Participant or Beneficiary will have rights to those invested amounts.

Article IV

PLAN BENEFITS

4.1 Vesting.

- (a) Deferred Compensation Account. A Participant's right to amounts in his or her Deferred Compensation Account will be fully vested at all times.
- (b) Deferred Stock Awards Account. A Participant's right to amounts in his or her Deferred Stock Awards Account will be fully vested at all times. However, the Deferred Stock Awards are subject to the restrictions on the sale or other transfer as provided under the terms of the Director Stock Plan.

4.2 Form Of Benefit Payments. When an Outside Director makes his or her first Deferral Election under Article II, the Outside Director also will elect how his or her Account will be paid in accordance with (a) through (d) below. For each Class Year, a Participant will elect how his or her Account will be paid in accordance with (a) through (d) below.

- (a) Affirmative Benefit Payment Elections. A Participant may elect to have the amounts in his or her Deferred Compensation Account paid, in cash (unless otherwise provided in (d) below) and in forms described in (1) and (2) below. A Participant's Deferred Stock Awards Account shall be paid in the form of the shares of the Company's common stock as provided under the Director Stock Plan and in forms described in (1) and (2) below. An election must be in writing and made in the manner required by the Committee.
 - (1) A single lump sum payment.
 - (2) Equal monthly installment payments which last no less than 12 months or more than 120 months. A Participant will continue to have the same investment election rights as Participants who are not receiving installment payments, and his or her Account will continue to be adjusted in accordance with Article III until the final installment payment is made. For purposes of Code §409A, installment payments are treated as a single payment.
- (b) Changes In Benefit Payment Elections. A Participant may change his or her affirmative payment election described in (a) above at any time prior to Separation From Service. The election must be made in the manner required by the Committee and the Participant must satisfy (1) through (3) below.
 - (1) The new payment election must be filed with the Committee at least 12 months prior to the date the Participant's benefits would have otherwise been paid (or commenced) under the previous election.
 - (2) The Participant's new payment election must defer the payment (or commencement) of his or her benefits at least 5 years from the date his or her benefits would have otherwise been paid (or commenced) under the previous election.

- (3) The Participant may not make a new election which accelerates the time benefits will be paid (or commence) unless permitted by Code §409A (and the regulations thereunder) and the Plan.
- (c) Default Benefit Payment Elections. If a Participant had not made an affirmative payment election under (a) above at the time of his or her Separation From Service, payment of the Participant's Account without an affirmative election will automatically be made in a single lump sum payment.
- (d) Payment Of Benefits In CFC Stock.
 - (1) Deferred Compensation Account. If a Participant elected to invest all or a portion of his or her Deferred Compensation Account in the Cincinnati Financial Corporation stock fund (if that's an available hypothetical investment alternative under the Plan), the Committee may allow the Participant to elect to receive the amount in his or her Deferred Compensation Account in the form of whole shares of Cincinnati Financial Corporation stock. Fractional shares will be paid in cash and expenses attributable to the election may be deducted from the Participant's Deferred Compensation Account.
 - (2) Deferred Stock Awards Account. A Participant will receive his or her Deferred Stock Awards Account in the form of Cincinnati Financial Corporation shares of common stock in accordance with the terms of the Director Stock Plan.

4.3 Commencement Of Benefits.

- (a) General. Subject to (b) through (c) below, the distribution of the Participant's Account will commence in the form provided in Section 4.2 as soon as administratively practicable following the Participant's Separation From Service, but in no event later than 90 days following that date.
- (b) Acceleration Of Benefit Payments In Certain Situations. Notwithstanding (a) above, a Participant's Account may be paid upon the occurrence of any of the events described in (1) through (3) below.
 - (1) Unforeseeable Emergencies. A Participant may withdraw all or a portion of his or her Account upon the occurrence of an Unforeseeable Emergency. A request for a distribution must be made in writing and in the manner required by the Committee. Distributions due to an Unforeseeable Emergency will be limited to the amount reasonably necessary to satisfy the need (which includes amounts necessary to pay federal, state, local, or foreign income taxes or penalties reasonably anticipated to result from the distribution), after taking into account the extent to which the emergency is or may be relieved through reimbursement, insurance or otherwise, by liquidation of the Participant's assets (to the extent liquidation would not cause severe financial hardship), or by cessation of deferrals under the Plan.

- (2) Plan Does Not Satisfy Code §409A. Payment of a Participant's Account may be made if the Plan fails to satisfy Code §409A. Payments may not exceed the amount required to be included in a Participant's or Beneficiary's income as a result of the Plan's failure to comply with Code §409A. A Participant or Beneficiary will be solely responsible for all taxes, penalties and/or interest with respect to his or her Plan benefits if the Plan does not satisfy Code §409A.
 - (3) Domestic Relations Orders. Notwithstanding (a) above, payment of a Participant's Account may be made to an individual other than the Participant to the extent necessary to comply with a domestic relations order (as defined in Code §414(p)(1)(B)).
- (c) Discretionary Delays In Benefit Payments. Notwithstanding (a) above, the Committee may decide to delay paying Plan benefits because of any events permitted under Code §409A (and the regulations thereunder) as interpreted by the Committee, including but not limited, to the situations described in (1) below and (d) below.
 - (1) Tax Deduction Not Permitted Under Code §162(m). If the Company's tax deduction for a Plan benefit payment would not be permitted under Code §162(m), the benefit payment will be at the later of the time described in (A) or (B) below.
 - (A) During the 1st taxable year of a Participant for which the Committee reasonably believes the benefit payment would be deductible under Code §162(m).
 - (B) During the period beginning on the date of a Participant's Separation From Service and ending on the later of: (i) the last day of the taxable year of the Participant during which his or her Separation From Service occurs; or (ii) the 15th day of the 3rd calendar month following the Participant's Separation From Service.
 - (C) Treated As Subsequent Deferral Elections. If benefit payments are delayed under this paragraph, the delay will be treated as a subsequent Deferral Election under Code §409A unless all benefit payments to the Participant that could be delayed under this paragraph are delayed.
- (d) Violation Of Securities Laws. Making a benefit payment would violate federal securities laws or other applicable laws. The benefit payment will be made on the earliest date the Committee reasonably believes that making the payment will not cause a violation of federal securities laws or other applicable laws.
- (e) Deemed Designated Date. A payment shall be treated as made upon the date specified if the payment is made at such date or a later date within the same taxable year of the Participant or, if later, by the 15th day of the third calendar

month following the date specified. Under no circumstances may a Participant choose the taxable year in which a payment is made.

4.4 Death.

- (a) Death Prior To The Commencement Of Benefits. If a Participant dies prior to the commencement of Plan benefits, the Participant's Account will be paid to the Participant's Beneficiary in a single lump sum. The payment will be made as soon as administratively practicable following the date of the Participant's death, but not more than 90 days following that date.
- (b) Death After Commencement Of Benefits. If a Participant had already commenced receiving his or her Plan benefits in installment payments at the time of his or her death, the installment payments will continue to be paid to his or her Beneficiary in the same manner as they were being paid to the Participant.

4.5 Tax Withholding. As a condition of receiving Plan benefits, the Company may deduct (or cause to be deducted) from any amounts payable to an individual (from the Plan or otherwise), or, in the Company's discretion, to otherwise to collect from the individual any withholding for federal, state or other taxes with respect to Plan benefits as determined by the Company.

4.6 Non-Assignability Of Benefits. Except as required by Section 4.3(b)(3) or law, the right of a Participant or Beneficiary to receive Plan benefits may not be made subject to anticipation, commutation, alienation, sale, assignment, encumbrance, charge, pledge, hypothecation, execution, attachment, levy or similar process or assignment. Any attempt (voluntary or involuntary) to take such action will have no effect.

Article V

PLAN ADMINISTRATION

5.1 Plan Administration. The Committee, in addition to the powers which are expressly provided in the Plan, has the power and authority, in its sole and absolute discretion, to control and manage the operation and administration of the Plan and has all powers necessary to accomplish these purposes including, but not limited to the following.

- (a) The power to determine who is an Outside Director, Participant or Beneficiary.
- (b) The power to determine whether Plan benefits are payable. Plan benefits will be paid only if the Committee decides that an individual is entitled to benefits.
- (c) The power to determine when, to whom, in what amount, and in what form Plan benefits may be paid.
- (d) The power to delegate its duties and responsibilities.
- (e) All other powers which it considers necessary, appropriate or desirable to enable it to perform its responsibilities under the Plan.

5.2 Rules And Procedures. The Committee has the discretionary authority to adopt Plan administrative rules and procedures.

5.3 Committee's Decisions Are Binding. The Committee's decisions are binding on all parties.

Article I

Article VI

MISCELLANEOUS PROVISIONS

6.1 Consolidation Or Merger. If the Company or any other entity (resulting from a merger or consolidation, or which is a purchaser or transferee) is merged or consolidated with another entity, or if substantially all of the Company's (or other entity's) assets are sold or transferred to another entity, the Plan's provisions will be binding on (and inure to the benefit of) the continuing entity.

6.2 Termination And Amendment.

(a) Amendment. Cincinnati Financial Corporation may, in its discretion, amend the Plan at any time and in any manner that it deems advisable. Notwithstanding the foregoing, the Committee may make amendments that are necessary for the Plan to comply with applicable laws and minor amendments which do not materially affect the rights conferred under the Plan. Any amendment or termination may be given retroactive effect as determined by Cincinnati Financial Corporation or the Committee. The Plan may not be amended orally or by any course or purported course of dealing, but only by an instrument identified as an amendment and considered to be an amendment by Cincinnati Financial Corporation. Written communications and descriptions not specifically identified within their text as amendments, or not considered to be an amendment by Cincinnati Financial Corporation, will not constitute amendments and will have no interpretive or controlling effect on the Plan. Oral communications will not constitute amendments and will have no interpretive or controlling effect on the Plan.

(b) Termination. Cincinnati Financial Corporation may, in its discretion, terminate the Plan at any time and in any manner that it deems advisable.

6.3 Entire Agreement. Except with respect to controlling provisions under the Director Stock Plan relating to deferred Stock Awards, this Plan document constitutes the entire agreement between the Company and any Participant or Beneficiary, and supersedes all other prior agreements, undertakings, both written and oral, with respect to rights and benefits under the Plan.

6.4 Paying For Benefits And Individuals' Rights. Plan benefits will be paid from the Company's general assets and will not be funded, or segregated in any way (unless the Company utilizes a rabbi trust to hold assets). Participants' and Beneficiaries' rights are limited to receiving the Plan benefits and are conditioned upon their continued compliance with the terms of the Plan. To the extent a Participant or Beneficiary acquires a right to receive Plan benefits, that right will be no greater than the rights of the Company's unsecured general creditors.

6.5 Severability. If a Plan provision is found to be invalid or unenforceable, that provision will not affect other Plan provisions. The Plan will be construed and enforced as if the invalid or unenforceable provision was not included in the Plan.

6.6 Gender And Number. Except when otherwise indicated by the context, the genders of pronouns and the singular and plural numbers of terms will be interchangeable.

6.7 Headings And Captions. The headings and captions are provided for reference and convenience and will not be used in the construction or interpretation of the Plan.

6.8 No Guarantee Of Tax Consequences. A Participant (or Beneficiary) will be responsible for all taxes, penalties and/or interest with respect to his or her benefits under the Plan. The Company does not guarantee any particular tax consequences.

6.9 Applicable Law. This document will be construed in accordance with, and governed by, the laws of the State of Ohio to the extent not superseded by the laws of the United States.

IN WITNESS WHEREOF, Cincinnati Financial Corporation has caused this document to be executed effective this 13th day of November, 2020.

CINCINNATI FINANCIAL CORPORATION

By: /S/ David P. Osborn
David P. Osborn
Director
Cincinnati Financial Corporation
Compensation Committee Chairman

10223766.4

Cincinnati Financial Corporation
Annual Incentive Compensation Plan of 2009
Amended and Restated January 29, 2021

1. **Purpose.** The purpose of the Cincinnati Financial Corporation Annual Incentive Compensation Plan of 2009 is to provide the executive officers of Cincinnati Financial Corporation and its subsidiaries on a consolidated basis with bonus compensation based upon the achievement of pre-established Performance Goals, as well as to maximize the Company's income tax deduction for the amount of the annual compensation paid to the President and Chief Executive Officer and the four most highly compensated officers other than the President and Chief Executive Officer, pursuant to Section 162(m) of the Internal Revenue Code.
2. **Definitions.** For purposes of the Plan, the following terms are defined as set forth below:
 - a. "Award" means the Incentive Compensation to which a Participant may become entitled upon the achievement of the Performance Goals.
 - b. "Board" means the Board of Directors of the Company.
 - c. "Code" means the Internal Revenue Code of 1986, as amended from time to time, and any successor thereto.
 - d. "Commission" means the Securities and Exchange Commission or any successor agency.
 - e. "Committee" means the Compensation Committee of the Board or a subcommittee thereof, any successor thereto or such other committee or subcommittee as may be designated by the Board to administer the Plan, which shall at all times consist of two or more outside directors, as defined under Section 162(m) of the Internal Revenue Code and the treasury regulations issued thereunder.
 - f. "Company" means Cincinnati Financial Corporation, a corporation organized under the laws of the State of Ohio, or any successor thereto and its subsidiaries on a consolidated basis.
 - g. "Participant" means the executive officers of the Company, including the President and Chief Executive Officer and the four most highly compensated officers of the Company (other than the President and Chief Executive Officer), as more fully described by the regulations adopted by the Commission under the Securities' Exchange Act of 1934.
 - h. "Peer Group" means the peer group determined by the compensation committee and disclosed in the Company's proxy statement for the annual meeting of shareholders.
 - i. "Performance Goals" means the objectives for the Company as established by the Company within the first 90 days of each calendar year. The Performance Goals are intended to constitute "performance-based" compensation with the meaning of Section 162(m) of the Code, or any amended or successor provision.
 - j. "Performance Year" means the calendar year ending December 31 in which the performance goal shall be measured.

- k. “Plan” means the Cincinnati Financial Corporation Annual Incentive Compensation Plan of 2009 which is the amended and restated Cincinnati Financial Corporation 2006 Incentive Compensation Plan.
 - l. “Value Creation Ratio” equals the total of: 1) the rate of growth in book value per share plus 2) the ratio of dividends declared per share to beginning book value per share.
3. **Administration of Plan.** The Plan shall be administered by the Company's Committee. The Committee shall have full power, authority and discretion to administer and interpret the Plan and to establish rules for its administration. The Committee, in making any determination under or referred to in the Plan, shall be entitled to rely on opinions, reports or statements of officers, employees, legal counsel and the public accountants of the Company, and upon the published financial reports of the Company's Peer Group.
4. **Effective Date of Plan.** The Plan shall go into effect on the date of approval by the Company's Board of Directors, conditioned upon shareholder approval at the next Annual Meeting of Shareholders.
5. **Awards.** Each Award under the Plan shall be evidenced by a written agreement in a form prescribed by the Committee that sets for the terms, conditions and limitations for the Award (Award Agreement). Each Participant is eligible to receive an Award of up to \$5,000,000 annually pursuant to achievement of the Performance Goal.
6. **Performance Goals.**
- a. Awards under the Plan shall be earned upon the achievement by the Company of the Performance Goal set forth in the award agreement. The Committee may establish the Performance Goal for the Performance Year based on one or more of the following performance objectives: total shareholder return, return on equity, return on economic capital, change in operating income, underwriting profitability, revenue, expenses, earnings per share, operating earnings per share, or Value Creation Ratio. Performance Goals may be numeric or a comparison to the peer group.
 - b. As soon as practicable either before or within 90 days after the beginning of each calendar year, the Committee shall establish written targets for the Performance Goal.
 - c. Notwithstanding anything to the contrary in this Plan, the Committee retains complete negative discretion (within the meaning of the applicable rules of the Internal Revenue Service under Section 162(m) of the Code) to reduce the amount of or eliminate part or all of the Award otherwise earned by the Participant upon the attainment of the Performance Goal in light of factors deemed appropriate by the Committee, but in no event may the Committee increase the amount of the Award payable to a Participant upon the achievement of the Performance Goal.
7. **Determination and Payment of Award.** Awards shall be determined by the Committee and paid by the Company as soon as practicable after the Committee is able to certify that

the Performance Goal established under Section 6 was in fact achieved. In no event shall the Awards be paid later than two months and fifteen days following the close of the calendar year in which the Performance Goal is achieved.

If a Participant terminates employment with the Company due to death or retirement during a calendar year in which the Performance Goal is achieved the Participant may be entitled to the payment of the Award at the discretion of the Company. In no event shall an Award be paid later than two months and fifteen days following the close of the calendar year in which the Performance Goal is achieved.

8. **Forfeiture and Recoupment of Awards.** If at any time the Committee reasonably believes that a Participant has committed an act of embezzlement, fraud, dishonesty, nonpayment of any obligation owed to the company, breach of fiduciary duty or deliberate disregard of the Company's rules resulting in loss, damage or injury to the company, any outstanding Award under the Plan shall be forfeited. In addition, if any Participant engaged in an act of embezzlement, fraud or breach of fiduciary duty during the Participant's employment that contributes to an obligation to restate the Company's financial statements, the Participant shall be required to repay to the Company in cash and upon the demand, any award paid under this Plan based on performance of any period for which the Company's financial statements are restated. Repayment of awards is in addition to and separate from any other relief available to the Company due to the Participant's misconduct. Any determination by the Committee with respect to the foregoing shall be final, conclusive and binding on all interested parties.

9. **Miscellaneous.**

- a. **Acceleration of Awards.** Unless otherwise expressly provided in an applicable Award agreement and notwithstanding any other provision of the Plan to the contrary, if a Participant's employment with the Company or one of its subsidiaries is terminated by action of the employing entity within 12 months after the effective date of a Change in Control, then any outstanding Award held by such Participant as of the date of termination shall become fully vested, and the restrictions and other conditions applicable to any such Award held by such Participant as of the date of termination, including vesting requirements, shall lapse, and such Awards shall become free of all restrictions and fully vested. For this purpose, a "Change in Control" means the event which shall be deemed to have occurred if either (i) after the date this Plan is adopted by the Company's shareholders, without prior approval of the Board, any person, entity or group becomes a beneficial owner, directly or indirectly, of securities of the Company representing 20% or more of the combined voting power of the Company's then outstanding securities; or (ii) without prior approval of the Board, as a result of, or in connection with, or within two years following, a tender or exchange offer for the voting stock of the Company, a merger or other business combination to which the Company is a party, the sale or other disposition of all or substantially all of the assets of the Company, a reorganization of the Company, or a proxy contest in connection with the election of members of the Board of Directors, the

persons who were directors of the Company immediately prior to any such transactions cease to constitute a majority of the Board of Directors or of the board of directors of any successor to the Company (except for resignation due to death, disability or normal retirement.) For purposes of the definition in the preceding sentence, any terms which are defined by rules promulgated by the Securities and Exchange Commission shall have the meanings specified in such definitions from time to time.

- b. **Participant Rights.** No Participant shall have any claim or right to be granted an award under the Plan and there shall be no obligation on behalf of the Company or the Committee for uniformity of treatment among Participants. Awards under the Plan may not be attached, assigned or alienated in any manner.
- c. **Not an Employment Obligation.** Neither the adoption of the Plan nor the granting of Awards under the Plan (or any other action taken hereunder) shall confer upon any Participant any right to be continued employment nor shall interfere in any way with the right of the Company to terminate the employment of any Participant at any time.
- d. **Income Tax Withholding.** The Company shall have the right to deduct from any award to be paid under the Plan any Federal, state or local taxes required by law to be withheld with respect to such payment.
- e. **Governing Law.** The Plan shall be governed by the laws of the State of Ohio and by applicable Federal Laws, excluding any conflicts or choice of law, rule or principle that might otherwise refer construction or interpretation of the Plan to the substantive law of another jurisdiction. Unless otherwise provided in an Award, Participants are deemed to submit to the exclusive jurisdiction and venue of the federal or state courts of Ohio, to resolve any and all issues that may arise out of or relate to the Plan or any related Award.
- f. **Amendment, Modification and Termination.** The Board of Directors of the Company may amend, modify or terminate the Plan at any time, except that no such amendment or modification shall affect awards previously granted. Any such amendment or modification shall be effective at such date as the Board may determine.
- g. **Severability.** If any provision of the Plan is held invalid or unenforceable, the invalidity or unenforceability shall not affect the remaining parts of the Plan, and the Plan shall be enforced and construed as if such provision had not been included.
- h. **Interpretation.** The Plan is designed and intended to comply with Section 162(m) of the Code, and all provisions hereof shall be construed in a manner to so comply.

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements of our report dated February 25, 2021, relating to the consolidated financial statements and financial statement schedules of Cincinnati Financial Corporation and subsidiaries (the “Company”) and the effectiveness of the Company’s internal control over financial reporting, appearing in this Annual Report on Form 10-K of the Company for the year ended December 31, 2020.

No. 333-24817 (on Form S-8)

No. 333-49981 (on Form S-8)

No. 333-126714 (on Form S-8)

No. 333-178075 (on Form S-8)

No. 333-186941 (on Form S-8)

No. 333-214701 (on Form S-8)

No. 333-221629 (on Form S-3)

No. 333-226773 (on Form S-8)

No. 333-250112 (on Form S-3)

/S/ Deloitte & Touche LLP

Cincinnati, Ohio
February 25, 2021

EXHIBIT 31A

CERTIFICATION PURSUANT TO SECTION 302 OF

THE SARBANES OXLEY ACT OF 2002

I, Steven J. Johnston, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cincinnati Financial Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of 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 controls 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 25, 2021

/S/ Steven J. Johnston
Steven J. Johnston, FCAS, MAAA, CFA, CERA
Chairman, President and Chief Executive Officer

EXHIBIT 31B

CERTIFICATION PURSUANT TO SECTION 302 OF

THE SARBANES OXLEY ACT OF 2002

I, Michael J. Sewell, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cincinnati Financial Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of 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 controls 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 25, 2021

/S/ Michael J. Sewell
Michael J. Sewell, CPA
Chief Financial Officer, Senior Vice President and Treasurer
(Principal Accounting Officer)

EXHIBIT 32

CERTIFICATION PURSUANT TO SECTION 906 OF

THE SARBANES OXLEY ACT OF 2002

The certification set forth below is being submitted in connection with this report on Form 10-K for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Steven J. Johnston, the chief executive officer, and Michael J. Sewell, the chief financial officer, of Cincinnati Financial Corporation each certifies that, to the best of his knowledge:

1. the report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the report fairly presents, in all material respects, the financial condition and results of operations of Cincinnati Financial Corporation.

Date: February 25, 2021

/S/ Steven J. Johnston
Steven J. Johnston, FCAS, MAAA, CFA, CERA
Chairman, President and Chief Executive Officer

/S/ Michael J. Sewell
Michael J. Sewell, CPA
Chief Financial Officer, Senior Vice President and Treasurer
(Principal Accounting Officer)